Please note:

Further details are provided in the Final Report on Site Selection Process (doc ref: 7.05) that can be found on the Thames Tideway Tunnel section of the Planning Inspectorate’s web site.
Site suitability report
S18WH

Feathers Wharf
# Thames Tunnel

**Site suitability report S18WH**

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List of abbreviations

- **AOD**: above Ordnance Datum
- **BAP**: biodiversity action plan
- **BT**: British Telecom
- **CPO**: compulsory purchase order
- **CSO**: combined sewer overflow
- **DLR**: Docklands Light Railway
- **EA**: Environment Agency
- **GLA**: Greater London Authority
- **HGV**: heavy goods vehicle
- **LNR**: local nature reserve
- **LPA**: local planning authority
- **LU**: London Underground
- **m**: metre/metres
- **MOL**: Metropolitan Open Land
- **ONS**: Office of National Statistics
- **ORN**: Olympic Route Network
- **PLA**: Port of London Authority
- **POS**: public open space
- **PTAL**: public transport accessibility level
- **SAM**: scheduled ancient monument
- **SINC**: site of importance for nature conservation
- **SNCI**: site(s) of nature conservation importance
- **SSR**: site suitability report
- **SSSI**: site(s) of special scientific interest
- **SUDS**: sustainable urban drainage systems
- **TfL**: Transport for London
- **TD**: tunnel datum
TLRN  Transport for London Road Network
TPA   Thames Policy Area
UDP   unitary development plan
UXO   unexploded ordnance
1 Introduction

1.1 Purpose and structure of the report

1.1.1 The Site selection methodology paper (May 2009 and revised August 2011)\(^a\) outlines the process to be used to create the preferred list of main tunnel sites, and this process also applies to CSO sites. Paragraph 2.3.31 lists the type of general considerations that will be addressed in each site suitability report. Whether a consideration is relevant to the assessment of a site will depend on available information and professional judgement.

1.1.2 This report was prepared through the assessment of information from the perspective of a number of technical disciplines: engineering, planning, environment, property and community. The reports have been prepared on the basis of the information listed in Appendix 1 and this level of information is considered to be appropriate to this stage of assessment.

1.1.3 The Site selection background technical paper provides information on the requirements for different types of sites, their sizes and typical activities/facilities within the sites.

1.1.4 Each site suitability report considers a particular site on its own merits. In addition, an Engineering options report was produced, which relates to main tunnel and connection tunnel options. Information from both of these reports will feed into the technical assessment of how well the site may fit in with tunnel design options, ensuring combinations of sites spread across the length of the tunnel route provide a reasonable spatial distribution of sites (that will best assist with the construction of the tunnel, operation and maintenance). The outcomes are reported in the Phase two scheme development report.

1.2 Background

1.2.1 The process for selecting sites is set out in the Site selection methodology paper. All sites have previously passed through the following parts of Stage 1:

- Part 1A – Creation of the long list of potential main tunnel (and CSO) sites
- Part 1B – Creation of a short list of potential main tunnel (and CSO) sites
  - Table 2.2: Long list of main tunnel (and CSO) sites – an assessment against set considerations and values
  - Table 2.3: Draft short list of main tunnel (and CSO) sites – assessment against a list of more detailed considerations
  - Workshops to consider each site to arrive at a short list of sites.

\(^a\) The amendments made in August 2011 do not change the site selection methodology process. The amendments only related to the introduction of a second phase of consultation (paragraphs 2.3.13-2.4.15) and minor factual updates.
1.2.2 The final part of Stage 1 includes this report. The following is an overall summary of all elements that apply to all the sites on the final short list:

- Part 1C – Creation of the preferred list of main tunnel (and CSO) sites – site data, site visits, site suitability reports, engineering options reports and optioneering workshops that are reported in the Phase two scheme development report.

1.2.3 The Site selection methodology paper also contains a provision for a back-check process in paragraph 2.5.6 that states:

“If any sites for any of the main tunnel sites or intermediate sites (or CSO site) are eliminated for any reason, if there are significant changes of circumstances in relation to existing sites or combinations of sites, if new or replacement sites are required or found or if the engineering design develops in unexpected ways then a targeted repeat of stages 1-3 will need to be undertaken in order to fill in any site gaps.”

1.3 Consultation

1.3.1 Thames Water’s approach to engagement and consultation for the Thames Tunnel project is outlined in the Statement of Community Consultation and the accompanying Community Consultation Strategy. Thames Water has engaged regularly with all potentially affected London local authorities, other stakeholders and interested parties on sites and the project.

1.3.2 Phase one consultation has been completed for all the preferred and shortlisted sites along with the three main tunnel route options. The analysis of the consultation responses is set out in the Report on phase one consultation and Interim engagement report. Any relevant site comments were considered at the post phase one consultation optioneering workshops. The outcomes of these workshops are reported in the Phase two scheme development report. After the workshops, engagement on sites has continued with key stakeholders, and the engineering design for sites has also continued in parallel. In autumn 2011, phase two consultation will provide another opportunity for people to comment on sites.

2 Site information

2.1 Site and surroundings

2.1.1 This section provides an overview of all the site information that will be used by one or more disciplines to assess the site in sections 3 to 9 of this report.

2.1.2 The site S18WH is located in the foreshore of the River Thames, in the London Borough of Wandsworth. A site location plan is attached as Appendix 2.

2.1.3 The site is bounded by the River Thames to the north, Cory Environmental Western Riverside Solid Waste Transfer Station (WTS) (including a significant new building under construction) to the east, ‘The Causeway’
road to the south, and mudflats to the west. A channel leading to the Thames runs along the western boundary of the site (the River Wandle).

2.1.4 There are seven- to eight-storey residential buildings to the west of the site at Mandell House, on Eastfields Avenue beyond the River Wandle, with uninterrupted views of the site. There are also residential properties on the northern bank of the Thames, opposite the site, and beyond the WTS to the east at Anchor House, on the north side of Smugglers Way.

2.1.5 There is a 'green chains and links' path to the south of the site, and a bridge over the River Wandle has recently been completed to connect The Causeway to Enterprise Way.

2.1.6 The site is covered by various planning and environment designations in the adopted Core Strategy and saved UDP policies. All the mapped designations, where data was available, are shown on the planning and environment plans in Appendix 3.

2.1.7 Photographs of the site and surroundings, together with an aerial photograph of the site, are attached as Appendix 4.

2.1.8 The site can be accessed by road via The Causeway. The A217 is 0.3km from the site. The site is about 2km from existing stabling sidings at Clapham Yard between the Windsor and main lines for rail access. The nearest London Underground stations (Putney Bridge or East Putney) are about 1.5km from the site. There are no existing wharfage/jetty facilities at the site (although there are substantial facilities associated with the solid WTS immediately to the east of the site). A preliminary transport plan for the site is attached as Appendix 5.

2.1.9 Third-party assets and significant utilities are listed below and are shown on the services and geology plan in Appendix 6:

- River wall to the west and north
- Feathers Wharf adjoining a tide barrier structure adjacent to the site in the west
- Western Riverside Transfer Station, with overhead gantries, at the eastern edge of the site.

2.1.10 The locations of other third-party assets, such as BT and fibre optic communication cables, are to be confirmed by further studies and utility searches and may not be shown on the services and geology plan.

2.1.11 Information on the geology specific to this site can be found within the services and geology plan, which is in Appendix 6. This plan shows that the shaft would be founded in London Clay.

2.1.12 It is understood that the National Grid is planning to build a cable tunnel which would run through the centre of the site. If this site is selected, there would be dialogue with National Grid to consider matters if applicable, such as timing, engineering constraints, cumulative effects of the projects, potential for site sharing, etc.
2.2 **Type of site**

2.2.1 The site S18WH is being considered as a reception/intermediate site.

3 **Proposed use of site – construction phase**

3.1.1 The proposed construction phase layouts for the main tunnel sites are located in Appendix 7 – *Construction phase layout*, and are based on a preliminary assessment.

3.1.2 The construction phase layout drawings are illustrative and show:
- the layout as a reception/intermediate site
- potential access points.

3.1.3 These drawings provide initial preliminary schematic layouts that have not been optimised. If the site proceeds to the next stage as a preferred site, construction phase layouts would be optimised to minimise impacts.

3.1.4 Drawings of typical activities associated with the shaft construction phase are provided in Appendix 7. Potential above-ground construction features (dependent on shaft type) include:
- approximately 3m high hoarding around the site boundary
- welfare facilities, temporary structures, approximately 3m high
- grout plant, approximately 3m to 5m high, including silos
- mobile crane, approximately 30m high
- gantry crane, approximately 8m high.

3.1.5 This site is not considered as a main tunnel single drive as it is smaller than the working area requirement of 15,000m$^2$ for a single EPB drive.

3.1.6 Preliminary data associated with the construction phase are provided in Table 3.1.

### Table 3.1 Construction phase data

<table>
<thead>
<tr>
<th>Activity</th>
<th>Reception/intermediate site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of construction period</td>
<td>4 to 5 years</td>
</tr>
<tr>
<td>Likely working hours, ie, (night/day/weekend)</td>
<td>12 hrs from 7am to 7pm</td>
</tr>
<tr>
<td>Working days</td>
<td>Mon to Sat</td>
</tr>
<tr>
<td>Primary means of transporting excavated material away from site</td>
<td>Road*</td>
</tr>
<tr>
<td>Primary means of transporting materials to site</td>
<td>Road*</td>
</tr>
</tbody>
</table>

*There may be feasible opportunities to use barge transport.*
4 Proposed use of site – operational phase

4.1 Introduction

4.1.1 The indicative operational phase layouts for the main tunnel sites are located in Appendix 8 – Operational phase layout, and are based on a preliminary assessment.

4.1.2 The generic elevations of structures shown on the operational phase layout are located in Appendix 8 and provide an illustration of typical examples of the permanent structures which are applicable to main tunnel sites.

4.1.3 The underground infrastructure at this site would likely comprise a shaft.

4.1.4 The above-ground infrastructure at this site would likely comprise a ventilation column and electrical control kiosk.

4.1.5 Hydraulically, the top structure to the shaft would be finished to a minimum level of 104.5m tunnel datum (TD) (4.5mAOD). Since the mean ground level in the area of the shaft is 104mTD (4mAOD), the top structure would be raised to approximately 0.5m above the current local ground level. The top structure is to provide access and egress into the shaft. For further information on the generic layout of this top structure, refer to Appendix 8.

4.1.6 Hardstanding would be provided to the top structures. The site would be fenced.

4.1.7 Preliminary data associated with the operational phase are provided in Table 4.1.

<table>
<thead>
<tr>
<th>Table 4.1 Operational phase data</th>
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</thead>
<tbody>
<tr>
<td>Level of inspections and</td>
</tr>
<tr>
<td>maintenance and likely</td>
</tr>
<tr>
<td>working hours, ie, (night/day/</td>
</tr>
<tr>
<td>weekend) – frequency of visits</td>
</tr>
<tr>
<td>One daytime visit every six</td>
</tr>
<tr>
<td>months for electrical/instrument</td>
</tr>
<tr>
<td>inspection. An additional one-</td>
</tr>
<tr>
<td>week maintenance period for</td>
</tr>
<tr>
<td>tunnel/shaft inspection</td>
</tr>
<tr>
<td>required per ten years that</td>
</tr>
<tr>
<td>could be night/day/weekend</td>
</tr>
<tr>
<td>working.</td>
</tr>
<tr>
<td>No. of traffic movements</td>
</tr>
<tr>
<td>One van visit every six months.</td>
</tr>
<tr>
<td>An additional one-week period of</td>
</tr>
<tr>
<td>two to ten movements per day</td>
</tr>
<tr>
<td>(estimated several vans and two</td>
</tr>
<tr>
<td>cranes) every ten years.</td>
</tr>
</tbody>
</table>

4.2 Restoration and after-use

4.2.1 The portion of the site not occupied by the permanent works would be restored to its original condition on completion of the construction works. If any buildings were demolished, these would not be reinstated unless required.
5 Engineering assessment

5.1 Access

5.1.1 This section should be read in conjunction with Section 7.2.

**Road**

5.1.2 There would be an existing road to access the site – The Causeway. The access route may pass under a railway bridge with height restrictions.

5.1.3 For the construction site, a short access route would be required from The Causeway.

5.1.4 For the operational phase, a longer access route would be required from The Causeway.

**Rail**

5.1.5 There would be no usable rail network local to this site. There would be usable London Underground stations local to the site.

**River**

5.1.6 Material movement for a reception/intermediate site would likely be by road. However, as the site would be adjacent to the river, there may be feasible opportunities to use barge transport.

5.2 Construction works considerations

5.2.1 No demolition would be required.

5.2.2 It is understood that the site was formerly a gas works, hence contaminated ground would be an issue.

5.2.3 The narrow shape of the site would constrain the use of the site during construction. The width varies from 35m to 50m, which would require particular attention to safety and may require a more complex logistics arrangement.

5.2.4 Available data on third-party assets show that the main assets of concern would be the proposed National Grid cable tunnel, Feathers Wharf adjoining a tide barrier, the river wall and the Western Riverside Transfer Station with overhead gantries. Construction methods would be adopted, as appropriate, to mitigate potential settlement of these assets.

5.2.5 The proximity of the shaft to the river means that the tunnel alignment deviation from the centre of the river would be minimised.

5.2.6 It is likely that the proposed works can be constructed within the overall construction programme.

5.3 Permanent works considerations

5.3.1 The top structure would be raised to approximately 2m above ground level.
5.4 Health and safety

5.4.1 The site may be contaminated at depth below the site.

5.4.2 There are no other unusual health and safety issues associated with this site.

6 Planning assessment

6.1 Introduction

6.1.1 The planning assessment builds on the advantages and disadvantages reported in Table 2.3 and covers the following areas:

- Planning applications and permissions
- Planning context
- Planning comments.

6.2 Planning applications and permissions

6.2.1 An initial desktop search of the London Borough of Wandsworth online planning applications identified an application for the use of the site as a construction laydown area for bulk recycling activities. This would be for a two-year period from the commencement of construction of the new materials recycling facility to the south of the existing waste transfer station, which was approved on 31 August 2006 (ref 2003/2993). The two-year period from commencement of construction was extended to 30 months following a variation of condition application, which was approved on 9 December 2010 (ref 2010/4398). These timescales may be compatible with the Thames Tunnel project construction programme.

6.2.2 An application was also submitted for the use of Feathers Wharf as a temporary replacement civic amenity facility, for up to 12 months from commencement of construction of the new civic amenity facility at the adjacent Western Riverside Waste Authority site (ref 2009/1239). This period of use of Feathers Wharf was extended to 18 months following a variation of condition application, approved on 9 December 2010 (ref 2010/4032). Timescales may be compatible with Thames Tunnel project construction programme.

6.3 Planning context

6.3.1 The local plan comprises the Core Strategy, adopted October 2010, emerging submission versions of the Development Management Policies Document (DMPD) and Site Specific Allocations Document (SSAD), as well as saved policies from the Wandsworth Unitary Development Plan, adopted August 2003, and the London Plan 2011. The adopted Core Strategy and saved UDP policies are afforded full weight in planning considerations and decisions on planning applications. The emerging DMPD and SSAD policies were deemed as material considerations by the council from 29 October 2010, when the proposed submission versions of these documents were published for public consultation. Full adoption of
the DMPD and SSAD is anticipated for April 2012, from which date they will carry full weight and supersede all saved polices from the UDP.

6.3.2 The planning designations and policies that are applicable to the site are detailed below.

**Thames Policy Area**

6.3.3 The site is wholly located within the designated Thames Policy Area and identified as a focal point of activity.

**Core Strategy**

6.3.4 *Core Strategy Policy PL 9, River Thames and the riverside*, is applicable to the site and states that ‘measures to protect and enhance the river as a valuable resource for wildlife and biodiversity’ will be supported. The policy also promotes greater use of the river, the protection of existing river infrastructure facilities and public spaces at focal points. Mixed-use development is also promoted within the Thames Policy Area in order to create safe attractive environments, new homes, jobs, and leisure and social infrastructure facilities, as well as increased public access to the river.

6.3.5 DMPD *Policy DMO9, Focal points of activity*, states that mixed-use development in focal points will be encouraged in order to create vibrant active places which enhance access to the river.

6.3.6 UDP *Policy R10, Wandle Delta*, states that development of Feathers Wharf will not be permitted unless provision is made for public open space at the mouth of the River Wandle.

**Safeguarded wharves**

6.3.7 The proposed site is adjacent to the Western Riverside Waste Transfer Station safeguarded wharf.

**London Plan**

6.3.8 *Policy 7.26, Increasing the use of the Blue Ribbon Network for freight transport*, states that safeguarded wharves should only be used for waterborne freight-handling use. Any temporary use should not preclude the wharf being reused for waterborne freight-handling uses.

**Core Strategy**

6.3.9 *Policy PL 9, River Thames and the riverside*, continues to support the efficient operation of the borough’s wharves for freight related activities.

**Green chains**

6.3.10 The UDP identifies a green chain along the riverfront of the River Thames and the River Wandle.
Core Strategy
6.3.11 Core Strategy Policy PL 4, Open Space and the Natural Environment, and emerging DMPD Policy DMO 1, Protection and Enhancement of Open Spaces, both seek to protect and enhance the borough’s green chains.

Saved UDP
6.3.12 Policy ON7, Green Chain Links, prohibits development that would harm the open nature of any open land that contributes towards the green chain or link between open spaces, especially to Metropolitan Open Land and where they form strategic link between boroughs.

Heritage
6.3.13 The whole site is within an archaeological priority area.

Saved UDP
6.3.14 Under Policy TBE14, Archaeological Priority Area, where development involves ground disturbance, the council will require developers to undertake an archaeological investigation. As appropriate, the council may, under Policy TBE15, require the preservation of findings either in situ or by excavation.

Emerging DMPD
6.3.15 DMPD Policy DMS 2, Managing the Historic Environment, states developments that would disturb archaeological priority areas will need to be assessed and may require an archaeological evaluation report.

Flood zone
6.3.16 The site is located within flood zones 2, 3a and 3b.

Core Strategy
6.3.17 Core Strategy Policy PL 2, Flood Risk, states that development of appropriate sites within flood zones 2, 3a and 3b will require a flood risk assessment and take account of the strategic flood risk assessment for the borough.

Emerging SSAD
6.3.18 The emerging Site Specific Allocations Document (SSAD) allocates the site for mixed-use development of residential and commercial uses and this should include riverside walks and public open space at the mouth of the River Wandle. Justification for this allocation states that this is a key site at the confluence of rivers Wandle and Thames.

6.4 Planning comments
6.4.1 There are a number of planning designations that are applicable both on and adjacent to the site. These designations have been identified and described in Section 6.3.
6.4.2 The site is within the Thames Policy Area and use of the site for the Thames Tunnel project would contribute to the aims of Policy PL 9, in terms of enhancement of the river as a valuable resource and by reducing the number of polluting CSO discharges, therefore increasing the river’s biodiversity. A cleaner river would, in turn, help to achieve the policy’s other aims, which include creation of a pleasant riverside environment and greater use of the river for recreational purposes.

6.4.3 In addition, Feather’s Wharf is designated as focal point of activity and the provision of public open space is a requirement for any new development under policies PL9 and R10. The latter requires that public open space is provided with new development on the mouth of the River Wandle. It is likely that the main shaft will be located adjacent to the River Thames to avoid tunnelling inland, which would result in the area being unable to support structural building foundations. This could subsequently facilitate the provision of public open space upon completion of the Thames Tunnel project, in accordance with Policy R10.

6.4.4 The site is allocated in the London Borough of Wandsworth’s emerging SSAD for mixed-use residential. While the Thames Tunnel project works will be contradictory to this allocation, the use of this site would be temporary and the layout of permanent structures configured so as not to prejudice the future development potential of the site. The current planning permissions require the use of Feathers Wharf for a period of up to approximately 2013. However, these timescales may be compatible with the Thames Tunnel project construction programme.

6.4.5 The site is adjacent to the Western Riverside Waste Transfer Station, which is an operational safeguarded wharf. The location, layout and operation of the proposed jetty facilities should not impede access to the river or conflict with the continued use of the safeguarded wharf, in accordance with policies 7.26 and PL 9. Consultation with the existing operator of the waste transfer station may be required in order to determine patterns of usage of the safeguarded wharf to avoid a conflict in operations and barge movements. It should be noted that the GLA is currently reviewing safeguarding sites and its final report is due for publication in early 2012.

6.4.6 Development of the site is unlikely to conflict with the green chains and links designation which runs along the northern and western boundaries of the site, as development could be sited to avoid this feature.

6.4.7 As the site is within an archaeology priority area, suitable investigation and remediation works would need to be agreed with the LPA in accordance with Policy TBE14. Further appraisal of the archaeological potential on the site is provided in Section 7.

6.4.8 The site is located within flood zones 2, 3a and 3b. Core Strategy Policy PL 2, Flood Risk, states that development of appropriate sites within flood zones 2, 3a and 3b will require a flood risk assessment and take account of the strategic flood risk assessment for the borough. DMPD Policy DMS 5, Flood Risk Management, sets out the criteria that development within flood zones should meet in order to secure planning permission.
7 Environmental appraisal

7.1 Introduction

7.1.1 The following sections summarise specialist assessments which are provided in Appendix 9 – Environmental appraisal tables.

7.2 Transport

7.2.1 The site is suitable as a reception/intermediate site as potential road and rail access routes are suitable for HGVs. The site would utilise the existing access for Admiral’s Yard (from Smugglers Way), and would require the prevention of on-street parking in the vicinity of the site access and removal of some on-street parking bays along The Causeway to allow access for construction vehicles. The access route to the site via Smugglers Way is limited by a one-way section and turning restriction at the junction of the A217 to the south, and it is therefore unlikely that construction traffic passing residences to the east can be entirely avoided. Access to the Thames Path and cycle route using footways on The Causeway should be maintained.

7.2.2 There is low potential for the workforce to utilise public transport to access the site. However, some parking could potentially be provided on site, or workforce transport would need to be provided.

7.3 Archaeology

7.3.1 Based on current information, the site is less suitable as a reception/intermediate site as three archaeological receptors of medium or high value have been recorded within the area, and it is possible that further archaeological receptors of high or medium value are present within the site. Due to the nature of the site, waterlogged material of archaeological value may also be present and mitigation could potentially be relatively costly.

7.4 Built heritage and townscape

7.4.1 The site is suitable as a reception/intermediate site as it is unlikely to result in any direct impacts on the historic built environment and, although the site has the potential to adversely impact on the landscape character of the River Thames, River Wandle and local views, these impacts could be mitigated through the scheme design and/or screening of the site.

7.5 Water resources – hydrogeology and surface water

7.5.1 The site is suitable because the shaft is to be constructed in London Clay (non-aquifer). The Chalk piezometric head is likely to be approximately 9.49m above the base of construction and should be taken into account in the engineering design. No impact on the Chalk aquifer is expected. Superficial deposits at the site comprise alluvium, which is classified as a minor aquifer and which is likely to be subject to a limited impact on flow due to the use of diaphragm walling or caissons.
7.5.2 In terms of surface water resources, the site is suitable as a reception/intermediate site because there is no direct pathway to the Thames. Standard mitigation would be required to manage drainage (behind flood defences) to prevent pollution.

7.6 **Ecology**

7.6.1 The site is suitable as a reception/intermediate site as no receptors of ecological value have currently been identified on the site and impacts are likely to be limited. The construction of the overflow culvert and any other works affecting the Thames foreshore (including piling behind the river wall) would potentially require negotiation with the EA, post-works restoration and compensatory habitat provision.

7.7 **Flood risk**

7.7.1 The site is suitable from a flood risk perspective as it is protected from the one in 1,000-year flood level and potential space on the site means that SUDS are likely to be suitable. Further investigation would be required to determine if the site is suitable for infiltration SUDS as a result of the superficial geology.

7.8 **Air quality**

7.8.1 This site is suitable for use as a reception/intermediate site, as there is likely to be sufficient distance from the site to potential dust-sensitive receptors that the risk of a perceptible impact is low, provided that standard dust control measures are in place. There is potential for HGV movements on the local road network to cause localised air quality impacts, however this could be mitigated by minimising the movement of HGVs during peak hours.

7.9 **Noise**

7.9.1 The site is suitable as a reception/intermediate site due to the large distances to the nearest residential receptors at Mandel House, Eastfields Avenue and Anchor House on Smugglers Way. However, it should be noted that shielding afforded by site perimeter barriers would provide limited further mitigation against noise due to the height of these receptors. There are anticipated to be a large number of vehicles associated with the construction phase, which could potentially cause an adverse noise impact on residential properties on Smugglers Way. This could, to some extent, be reduced by access to the site using both access routes afforded by Smugglers Way. However, such mitigation is limited by the route being one-way to the south and by a turning restriction (from one direction only) at the junction with the A217 to the south.

7.10 **Land quality**

7.10.1 The site is less suitable as a reception/intermediate site due to the high potential for contamination to have occurred, specifically from the waterworks, landfill and wharf operations on site, and the various works operations (specifically the gasworks) in the vicinity of the site. This
potentially poses a risk to construction workers and adjacent human receptors through direct contact and inhalation exposure pathways.

8 Socio-economic and community assessment

8.1 Introduction

8.1.1 The socio-economic and community assessment builds on the advantages and disadvantages reported in Table 2.3 and covers the following areas:

- Socio-economic profile
- Socio-economic and community issues and impacts.

8.2 Socio-economic profile

8.2.1 The site is in the Thamesfield ward of the London Borough of Wandsworth. Statistics from the Office of National Statistics (ONS) 2001 Census show the following indicators for the ward, in comparison to the rest of the borough, London and England as a whole.

- The population of the surrounding area appears to be homogeneous (91.8 per cent white people), with a range of ages.
- A lower percentage of unemployed people than the UK on average.

8.2.2 Site visits have indicated a low sense of community in the neighbourhood of the site, with no community facilities in the vicinity apart from a health club, which may have a wider catchment than the immediate neighbourhood.

8.3 Issues and impacts

8.3.1 Due to the proposed location of the engineering works for a main tunnel reception/intermediate site and the current surrounding land uses, impact on the local community appears likely to be minimal. As the site is not accessible to the public at present, loss of access to the site is not likely to make a difference to the local community.

8.3.2 The nearest residential properties are located across the River Wandle in Mandel House, and a number of properties in this building will overlook the site.

8.3.3 There may be some impact on use of the footpath to the south of the site, although the proposed location of the engineering works to the north of the site is likely to minimise any potential impact. From data obtained during a site visit, the Thames Path appeared to be little used in this area.

9 Property assessment

9.1 Introduction

9.1.1 This report builds on the advantages and disadvantages in Table 2.3 and the assessment provides more up-to-date information.

9.1.2 The site comprises Feathers Wharf, currently in use as a temporary waste recycling site.
9.1.3 There is a current planning consent for the site to be used as a temporary civic amenity site while the nearby existing amenity site is being upgraded. It is envisaged that this would not affect the property assessment. After this use ends, it seems likely the site would revert to general storage as part of the overall site, but it is possible it could be released for development.

9.2 Crown land and special land comments

9.2.1 The freehold of part of the site is held by the London Borough of Wandsworth and the remainder by the Western Riverside Waste Authority. Therefore, Section 127 of the Planning Act 2008 may apply. Section 127 provides that land may not be acquired unless the Secretary of State certifies that there will be no serious detriment to the carrying on of the undertaking, or that the land can be replaced. Prior to selecting the site, the responsible authorities must be consulted so that it can be established whether there are any fundamental issues arising that might prejudice the practicability of using the land.

9.2.2 With co-operation of the relevant authorities, there should be no risk to the project. However, acquisition of the site may involve a special S.127 procedure, with the possibility of delay to the project programme.

9.3 Land to be acquired

9.3.1 The compensation assessment assumes that the worksite and access to it would be acquired temporarily, via the acquisition of new rights for the period of the works stated in the engineering section above. At the end of the works, a smaller area would need to be acquired permanently, located at the northern end of the site and measuring approximately 30m by 40m, with access along the eastern boundary of the site.

9.3.2 During the construction phase, a small area at the southern end of the site is shown as being outside the working area, but it is likely that the whole site would have to be acquired on a temporary basis for the duration of the construction works.

9.3.3 The site is currently accessible from the public highway, and no rights of way or easements have been included in our assessment of this site acquisition cost.

9.4 Property valuation comments

9.4.1 The site is currently used as a temporary waste recycling site and was previously used for open storage. It is identified as a major development site suitable for mixed-use redevelopment, but is, however, adjacent to a major waste transfer station.

9.5 Disturbance compensation comments

9.5.1 The site has been used for storage purposes in conjunction with the adjacent civic amenity/waste transfer site. At present, the site is in use as a temporary civic amenity site while the adjacent facility is being upgraded. Until consultation has taken place with the waste authority and the
borough council, the operational impacts that use of this site may have on the waste transfer facility as a whole would not be known. The assumption at present is that once the current temporary use has ceased, the scope for disturbance is limited and any such costs would not be material in the consideration of this site.

9.6 Discretionary purchase costs comments
9.6.1 The site is not close to a residential area and the fact that work would be within normal working hours should significantly limit the potential for discretionary purchases.

9.7 Offsite statutory compensation comments
9.7.1 There should be limited potential for offsite statutory compensation under S.10 of the Compulsory Purchase Act 1965, as there is unlikely to be any physical interference with public or private property rights.
9.7.2 There should also be limited potential for claims under the Land Compensation Act 1973 Part 1, as the completed works are unlikely to result in diminution in value to property.

9.8 Site acquisition cost assessment
9.8.1 The statutory acquisition cost is considered to be acceptable.

10 Site conclusions by discipline

10.1 Introduction
10.1.1 The conclusions presented in this section are drawn from each discipline’s assessment, and are designed to inform the workshop where a final conclusion is reached on whether the site can be taken forward as a potential preferred site, subject to its fit with possible drive strategies in the case of main tunnel sites.

10.2 Engineering
10.2.1 This site is considered suitable as a reception/intermediate site as the site would be flat, cleared, and with good road links to the TLRN.
10.2.2 The site is narrow and so it would require careful management to ensure safety during construction.

10.3 Planning
10.3.1 This site is considered suitable for use as a reception/intermediate site.
10.3.2 There are a number of planning and environmental designations that are applicable to the site and it is considered that, with appropriate mitigation measures, these designations are unlikely to be unacceptably impacted on.
10.3.3 The site is allocated in the London Borough of Wandsworth’s emerging SSAD for mixed-use residential. While the Thames Tunnel project works will be contradictory to this allocation, the use of the site will be temporary
and the layout of permanent structures configured so as not to prejudice the future development potential of the site.

10.3.4 The site is adjacent to the Western Riverside Transfer Station, a safeguarded wharf, and works do not conflict in operations and barge movements. The recent planning approvals for the use of Feather’s Wharf in relation to the new civic amenity facility are likely to have a compatible construction timetable with the Thames Tunnel programme.

10.4 Environment

10.4.1 Overall, the site is considered to be **suitable** as a reception/intermediate site, although mitigation would be required.

10.4.2 Based on current information, the site is **suitable** from the perspectives of transport, built heritage, townscape, water resources, ecology, flood risk, noise and air quality.

10.4.3 This site is considered **less suitable** from the perspectives of archaeology and land quality.

10.4.4 Overall, the site is considered **suitable**, subject to further investigation of whether archaeology and land quality impacts could be adequately mitigated. Likely mitigation considerations would include the following:

- Archaeology – further investigation to assess in detail the risk posed by archaeological receptors within the site
- Land quality – any required remediation of contamination (at this high-risk site) and/or measures to ensure no mobilisation of contaminants retained in situ.

10.5 Socio-economic and community

10.5.1 The use of the site appears **suitable** as a reception/intermediate site and is likely to have minimal impact on the local community.

10.5.2 Mitigation may involve work to try to reduce potential impacts on the residential properties opposite to the west, and finding acceptable diversions to the Thames Path if any user groups are found to be affected by works on the site at a later stage.

10.5.3 The current temporary use of the site as a storage area for the adjacent waste transfer station may need to be accommodated on site or relocated, as part of mitigation.

10.6 Property

10.6.1 The site is assessed as **suitable** as a reception/intermediate site. It is recommended that dialogue with the landowners should take place at an early stage to establish the impact acquisition would have on waste transfer operations and to assess resistance to the proposal, which might cause difficult negotiations against the background of S.127 of the Planning Act 2008 procedures.

10.6.2 Subject to confirmation that disturbance to the waste transfer operation is minimal, this site is likely to have acceptable acquisition costs. It is some
distance from residential property and its use is not likely to cause significant inconvenience to the general public. As the site is owned by public authorities, its use would have unknown operational impact, and there is uncertainty over timing and risk to the programme.

10.7 **Next steps in the site selection process**

10.7.1 It should be noted at this point that the above conclusions do not represent an overall recommendation on the suitability of a site. The disciplines discuss their site suitability report conclusions at optioneering workshops, along with main tunnel drive strategy options. Main tunnel sites need to link together to form possible drive options for construction of the main tunnel. Therefore, a preferred site can only be identified through a series of main tunnel drive option comparisons. The outcome of this two-step process (sites and then drive option comparisons) is set out in the *Phase two scheme development report*. 
Appendices
Appendix 1 – Sources of information

Engineering

- Traffic Management and Access Roads/Rail – URS Scott Wilson
- Access River – BMT Isis
- Third Parties (Shafts/CSOs) – Mott MacDonald and AECOM
- Geology – Thames Water
- Utilities – Thames Water and AECOM
- Construction and Operational Layout Template – Thames Tunnel
- Site selection background technical paper – Thames Tunnel

Planning

- London Borough of Wandsworth online planning applications database
- *Wandsworth Core Strategy*, adopted October 2010
- Saved policies in the *Wandsworth Unitary Development Plan*, adopted in August 2003
- Emerging submission version of the *Development Management Policies Document* (DMPD), May 2011
- Emerging submission version of the *Site Specific Allocations Document* (SSAD), May 2011
- *London Plan*, adopted July 2011
- Consultation draft replacement London Plan, October 2009.

Environment

Transport

- Map of Transport for London Road Network (TLRN) – www.tfl.gov.uk
- Bus Route Maps: North-east, north-west, south-west, south-east – www.tfl.gov.uk
- Crossrail Plans – www.crossrail.co.uk/crossrail-bill-documents
- PTAL scores – Obtained from Table 2.3 information
- Thames Path map – www.walklondon.org.uk
- Capital Ring – www.walklondon.org.uk
- Cycle Routes – www.sustrans.org.uk and Local Cycling Guides 1-14
- Design Manual for Roads and Bridge TD 42/95, Highways Agency
Site suitability report S18WH – Appendix 1

**Archaeology**
- Historic Environment data from Greater London Archaeology Advisory Service (GLAAS)
- National Monuments Record – for some additional information regarding registered historic parks and gardens
- London Archaeological Archive and Research Centre (LAARC)
- Local authority websites
- Bing maps

**Built heritage and townscape**
- Local authority lists of Locally Listed Buildings
- National Monuments Record – for some additional information regarding registered historic parks and gardens
- Unitary development plan and DPDs
- Local authority websites
- Bing maps

**Water resources – hydrogeology and surface water**
- Local authority details of unlicensed abstractors
- Environment Agency abstraction licence details
- Environment Agency groundwater levels and contour maps (2009-11)
- Environment Agency water quality (surface water and groundwater)
- Environment Agency Groundwater Source Protection Zones
- Envirocheck
- British Geological Survey (BGS) logs
- BGS 1:50,000 Geological Sheets – Solid and Drift Editions (England and Wales)
- BGS Geology of London – Special Memoir for 1:50,000 Geological sheets 256 (North London), 257 (Romford), 270 (South London) and 271 (Dartford) (England and Wales)
- Crossrail (2005) – Assessment of Water Impacts Technical Report: Appendix C – Baseline Data. Figure C.4: Extent of Saline Intrusion based on 177 mg/l *5mmol/l) Isochlor

**Ecology**
Multi-Agency Geographic Information for the Countryside (MAGIC) – www.magic.gov.uk - statutory designated sites

London Wildweb – wildweb.london.gov.uk - non-statutory site of importance for nature conservation


National Biodiversity Network – http://searchnbn.net - distribution of protected species

Google Maps – aerial views of habitat features

BAP habitats – www.natureonthemap.org.uk

Priority habitats and species on national and local scales – www.ukbap.org.uk

**Flood risk**


Environment Agency National Flood and Coastal Defence Database

Envirocheck

**Air quality**

Local authority websites

London Air Quality Network – www.londonair.org.uk

Defra UK-AIR, air quality information resource – www.airquality.co.uk

Defra Air Quality Management Areas – http://aqma.defra.gov.uk

Defra Local Air Quality Management – http://laqm.defra.gov.uk

**Noise**

Envirocheck – Identification of receptors

Promap – Calculation of distances between site and receptors

Multimap – Aerial photography – www.multimap.co.uk

Defra noise maps – Identification of existing noise levels

**Land quality**

Google Maps/Earth

Site walkover information

Envirocheck Data Sheets provided as a GIS Database

British Geological Survey (BGS) logs

**Socio-economic and community**

Statistics from the Office of National Statistics 2001 Census data
Property

- Promap, Ordnance Survey and A-Z mapping
- Multimap/Google Earth aerial/satellite photographs
- Valuation Office Agency rating lists and summary valuations
- Focus and EGi
- Mouchel referencing data
Appendix 2 – Site location plan
This is an indicative working draft plan which has been produced for the purpose of confidential discussions only. Accordingly, the draft plan must not be copied, distributed or shown to any third party without the express written permission of Thames Water Utilities Limited. It provides an indication of sites that, following discussions with local authorities and other stakeholders, may be confirmed as being on the shortlist of construction sites for the proposed Thames Tunnel. Inclusion of a site on this draft plan should not be taken to mean that such site will be selected as a construction site to form part of the Thames Tunnel scheme.
Appendix 3 – Planning and environment plans
This is an indicative working draft plan which has been produced for the purpose of confidential discussions only. Accordingly, the draft plan must not be copied, distributed or shown to any third party without the express written permission of Thames Water Utilities Limited. It provides an indication of sites that, following discussions with local authorities and other stakeholders, may be confirmed as being on the shortlist of construction sites for the proposed Thames Tunnel. Inclusion of a site on this draft plan should not be taken to mean that such site will be selected as a construction site to form part of the Thames Tunnel scheme.
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Legend

- Local Authority Boundary
- Short Listed Shaft Site

Title:
APPENDIX 3B
PLANNING & ENVIRONMENT PLAN
S18WH SITE
This is an indicative working draft plan which has been produced for the purpose of confidential discussions only. Accordingly, the draft plan must not be copied, distributed or shown to any third party without the express written permission of Thames Water Utilities Limited. It provides an indication of sites that, following discussions with local authorities and other stakeholders, may be confirmed as being on the shortlist of construction sites for the proposed Thames Tunnel. Inclusion of a site on this draft plan should not be taken to mean that such site will be selected as a construction site to form part of the Thames Tunnel scheme.
Appendix 4 – Photographs of the site and surroundings
This is an indicative working draft plan which has been produced for the purpose of confidential discussions only. Accordingly, the draft plan must not be copied, distributed or shown to any third party without the express written permission of Thames Water Utilities Limited. It provides an indication of sites that, following discussions with local authorities and other stakeholders, may be confirmed as being on the shortlist of construction sites for the proposed Thames Tunnel. Inclusion of a site on this draft plan should not be taken to mean that such site will be selected as a construction site to form part of the Thames Tunnel scheme.
Existing entrance to the site looking north from The Causeway.

View across the site looking northeast from The Causeway.
Appendix 5 – Transport plan
This is an indicative working draft plan which has been produced for the purpose of confidential discussions only. Accordingly, the draft plan must not be copied, distributed or shown to any third party without the express written permission of Thames Water Utilities Limited. It provides an indication of sites that, following discussions with local authorities and other stakeholders, may be confirmed as being on the shortlist of construction sites for the proposed Thames Tunnel. Inclusion of a site on this draft plan should not be taken to mean that such site will be selected as a construction site to form part of the Thames Tunnel scheme.
Appendix 6 – Services and geology plan
Appendix 7 – Construction phase layout
Appendix 8 – Operational phase layout
1. Structure to be protected by removable handrails in the temporary case.
2. Position of covers are variable within 10m from the edge of the structure, and the location is based on site specific requirement.
3. Cladding of ventilation building to suit location and aesthetics.
4. All top structures to have:
   - Access stairs/ladder
   - Temporary or permanent hand railing
5. All dimensions in millimeters unless otherwise stated.
## Transport

<table>
<thead>
<tr>
<th>Site considerations</th>
<th>Comments</th>
<th>Mitigation required and conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to road network</td>
<td>The site accesses onto The Causeway from an existing access (currently out of use) for Admiral’s Yard. On-street parking is prevented within the vicinity of the site access by single yellow lines on both sides of the road. On-street parking on both sides of The Causeway is provided to the east of the yellow-lined section near the junction with Smugglers Way. The Causeway is subject to a 30mph speed limit and is street lit. It has a carriageway width of 8m, which is reduced to an effective width of 4.6m throughout some sections due to on-street parking. Visibility splays achievable from the site access are 90m to the east and to the end of the road to the west (approximately 40m). Access to the A217 (TLRN strategic highway network) from The Causeway and Smugglers Way. Some on-street parking around the bend on The Causeway will need to be removed to allow HGVs to safely pass each other. Distance 0.5km to TLRN (A217). A preliminary transport access plan is attached as Appendix 5.</td>
<td>Road access to the site is likely to be suitable for HGVs, with the removal of some on-street parking spaces along The Causeway to allow construction vehicles to pass each other safely (particularly around the bend). On-street parking within the vicinity of the site access is prevented by single yellow lines along both sides. Access from the A217 to The Causeway via Smugglers Way is possible from the south and east as Smugglers way forms a loop from the A217. It should however be noted that vehicles leaving the site will only be able to do so via the eastern stretch of Smugglers Way as the southern route is one-way. Furthermore, Smugglers Way can only be entered from one direction of the A217 to the south. Construction traffic is therefore unlikely to be able to entirely avoid use of Smugglers Way to the east – which passes residential buildings to the east of site.</td>
</tr>
<tr>
<td>Access to river</td>
<td>River access not required for reception/intermediate site.</td>
<td>River access not required as excavated and construction material is to be transported by road.</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Site considerations</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Access to rail</td>
<td>Access to existing railway sidings at Clapham Junction from the TLRN (A217) onto the gyratory between the A217 and A3205, turning onto the A214. The route then leads on to East Hill, following on to St John’s Hill before turning onto Plough Road for the Clapham Junction, Traincare Depot railway sidings. The route passes under one rail bridge (on Trinity Road) with no visible restrictions, and through a high street area along St John’s Hill. Distance 2.1km to rail access point from site.</td>
<td>Route to possible rail link at Clapham Junction runs through a high street area along St John’s Hill and under one rail bridge with no visible restrictions. Clapham Junction railway sidings at the Traincare Depot accessible using Plough Road.</td>
</tr>
<tr>
<td>Parking</td>
<td>Parking could be provided within the site boundary for workforce. On-street parking (Mon-Fri 09:30-16:30 at £1.80/hr for a maximum stay of 4hrs) is available within the vicinity of the site along The Causeway to the east of the single yellow lined section. Some on-street parking along The Causeway will need to be removed to allow HGVs to safely pass each other. Alternative parking is available nearby.</td>
<td>Parking for workforce to be provided within the site boundary. Some on-street parking will be displaced, although alternative spaces are available nearby. On-street parking unlikely to be suitable for workforce during the week as maximum stay is 4hrs for pay and display users.</td>
</tr>
<tr>
<td>Public transport accessibility</td>
<td>PTAL 1-2, as identified within Table 2.3.</td>
<td>PTAL least suitable. Public transport access issues for workforce. Workforce transport could be provided.</td>
</tr>
<tr>
<td>Traffic management</td>
<td>Some on-street parking along The Causeway will require removal. Access to the Thames Path and cycle route using footways along The Causeway onto the footbridge to the west of the site should be maintained.</td>
<td>Traffic management required in the form of removal of some on-street parking bays along The Causeway to allow HGVs to pass safely. Access to Thames Path and cycle route will need to be maintained.</td>
</tr>
</tbody>
</table>
### Transport

<table>
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</table>

**Summary:** The site is suitable as a reception/intermediate site as potential road and rail access routes are suitable for HGVs. The site would utilise the existing access for Admiral’s Yard (from Smugglers Way), and would require the prevention of on-street parking in the vicinity of the site access and the removal of some on-street parking bays along The Causeway to allow access for construction vehicles. The access route to the site via Smugglers Way is limited by a one-way section and turning restriction at the junction of the A217 to the south, and it is therefore unlikely that construction traffic passing residences to the east can be entirely avoided. Access to the Thames Path and cycle route using footways on The Causeway should be maintained.

There is a low potential for the workforce to utilise public transport to access the site, however some parking could potentially be provided on site, or workforce transport would need to be provided.
### Archaeology

<table>
<thead>
<tr>
<th>Site considerations</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Designations, including archaeological priority areas</td>
<td>The site is located within the Wandsworth Archaeological Priority Area.</td>
<td>A detailed desk-based assessment is required to sufficiently understand the archaeological resource and define risk to potential development.</td>
</tr>
<tr>
<td>Summary of historical uses</td>
<td>The site occupies land along the edge of the River Wandle which appears to have been developed for mill buildings in the 19th century and later waterworks. Archaeological remains of an earlier date may be present.</td>
<td>A detailed desk-based assessment is required to sufficiently understand the archaeological resource and define risk to potential development.</td>
</tr>
<tr>
<td>Potential receptors of very high or high value with the potential to be directly affected</td>
<td>A number of Bronze Age metal finds have been recovered from the northwest of the site. Some of these are likely to be considered of high value. There is also the possibility of further unrecorded archaeological receptors of high value being present within the site.</td>
<td>A detailed desk-based assessment is required to sufficiently understand the archaeological resource and define risk to potential development.</td>
</tr>
<tr>
<td>Potential receptors of medium value with the potential to be directly affected</td>
<td>A Neolithic flint core of low or medium value has been recovered from the northwest of the site. It is also possible that further unrecorded archaeological receptors of medium value are present within the site.</td>
<td>A detailed desk-based assessment is required to sufficiently understand the archaeological resource and define risk to potential development.</td>
</tr>
<tr>
<td>Other receptors with the potential to be directly affected</td>
<td>The dewatering of adjacent waterlogged deposits may be an issue considering the location of the site immediately adjacent to the Thames.</td>
<td>A detailed desk-based assessment is required to sufficiently understand the archaeological resource and define risk to potential development.</td>
</tr>
<tr>
<td>Extent of existing disturbance (if known)</td>
<td>Victorian mill buildings and other structures may have disturbed earlier remains.</td>
<td>A detailed desk-based assessment is required to sufficiently understand the archaeological resource and define risk to potential development.</td>
</tr>
<tr>
<td>Site considerations</td>
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<td>Mitigation required and conclusions</td>
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<tr>
<td>---------------------</td>
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</tbody>
</table>
| Potential issues    | Detailed design proposals and an outline method statement will be required to enable initial assessment of development impacts, and to inform mitigation proposals. With the currently available information, it is not possible to highlight specific potential issues. | Mitigation methods could include:  
• desk-based assessment  
• production of deposits model  
• archaeological monitoring of geotechnical investigations  
• archaeological evaluation  
• archaeological watching brief  
• archaeological excavation. |

**Summary:** Based on current information, the site is less suitable as a reception/intermediate site as three archaeological receptors of medium or high value have been recorded within the site, and it is possible that further archaeological receptors of high or medium value are present within the site. Due to the waterlogged nature of the site, waterlogged material of archaeological value may also be present within the site, and mitigation could potentially be relatively costly.
### Built heritage and townscape

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<tr>
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<tbody>
<tr>
<td><strong>Listed buildings</strong></td>
<td>Wentworth House with forecourt wall, gate and gatepiers, Grade II: 250m (beyond railway lines and a number of other commercial sites and buildings).</td>
<td>In the case of listed buildings and conservation areas, a high-quality scheme design and adequate screening for the development may be required, as discussed below. A detailed desk-based assessment in conjunction with archaeology work will be required to further determine the likely impact of the development, and to inform more detailed mitigation proposals.</td>
</tr>
<tr>
<td><strong>Locally listed buildings</strong></td>
<td>Although a local list is maintained by the borough of Hammersmith and Fulham, this data was not available at the time of this assessment. There are no locally listed buildings within 250m of S18WH and within the borough of Wandsworth.</td>
<td></td>
</tr>
<tr>
<td><strong>Conservation areas</strong></td>
<td>Sands End Conservation Area: 115m Putney Bridge Conservation Area: 200m Wandsworth Town Centre Conservation Area: 210m</td>
<td></td>
</tr>
<tr>
<td><strong>Registered historic parks and gardens</strong></td>
<td>There are no registered historic parks and gardens within 250m of S18WH.</td>
<td></td>
</tr>
<tr>
<td><strong>Locally listed parks and gardens</strong></td>
<td>There are no locally listed parks and gardens with 250m of S18WH.</td>
<td></td>
</tr>
<tr>
<td><strong>Protected views</strong></td>
<td>There are no protected views within 250m of S18WH.</td>
<td></td>
</tr>
</tbody>
</table>
## Built heritage and townscape

<table>
<thead>
<tr>
<th>Site considerations</th>
<th>Comments</th>
<th>Mitigation required and conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential receptors of medium to very high importance with the potential to be <strong>directly</strong> affected</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Other receptors of lesser importance with the potential to be <strong>directly</strong> affected</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Potential receptors of medium to very high importance with the potential to be <strong>indirectly</strong> affected</td>
<td>There is the potential for one listed building (Wentworth House with forecourt wall, gate and gatepiers, Grade II) and three conservation areas (the Sands End Conservation Area, the Putney Bridge Conservation Area and Wandsworth Town Centre Conservation Area) to be indirectly affected by S18WH.</td>
<td>The Grade II listed Wentworth House with forecourt wall, gate and gatepiers shares no visual relationship with S18WH reflecting both its distance from the site and the built up character of the local area. Mitigation would therefore not be required. Of the three conservation areas within 250m of S18WH, only two share a visual relationship with the site. Despite the presence of mature vegetation and buildings along the northern bank of the River Thames, the site is visible from Sands End Conservation Area and the Putney Bridge Conservation Area. Development of the site therefore has the potential to have a visual impact on the setting and views to and from both conservation areas. Mitigation in the form of a high-quality scheme design and/or screening would be required to reduce any adverse visual impact. In contrast, the Wandsworth Town Centre Conservation Area does not share a visual relationship with S18WH reflecting both its...</td>
</tr>
</tbody>
</table>
## Built heritage and townscape

<table>
<thead>
<tr>
<th>Site considerations</th>
<th>Comments</th>
<th>Mitigation required and conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>distance from the site and the built up character of the local area. Mitigation would therefore not be required.</td>
</tr>
<tr>
<td>Other receptors of lesser importance with the potential to be <strong>indirectly</strong> affected</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Sensitive landscape character areas likely to be affected, including trees and TPOs</td>
<td>A site allocations document site designated for mixed-use development. Sensitive site on the south bank of the River Thames at the mouth of Bell Lane Creek and River Wandle. River Thames to the north, predominantly industrial properties to the east and west, with one residential development to the west along the river. Railway line to the south. Site has some scrub along its western boundary. The presence and operation of machinery, materials stores and buildings would potentially result in temporary, adverse direct impacts on the character of the river and its frontage, and temporary, adverse indirect impacts on neighbouring areas. Permanent elements on site are likely to have a minimal impact on the character of the site.</td>
<td>Retention of trees where possible, and protection in accordance with BS 5837. Introduction of landscape scheme to include appropriate surface treatments, and planting to replace lost vegetation and enhance character of the river frontage. Although this site is on the river front, it is ‘tucked away’, and its character relates to its surroundings. The presence and operation of machinery, materials stores and buildings on site has the potential to impact the character of adjacent residential properties. This would require appropriate mitigation.</td>
</tr>
<tr>
<td>Potential views likely to be affected</td>
<td>Open views from the river, adjacent residences, residences on the north bank of the river, surrounding industrial uses, and railway</td>
<td>During construction, the use of hoardings and appropriate lighting would help minimise visual impact. Design of top structure, vent</td>
</tr>
</tbody>
</table>
## Built heritage and townscape

<table>
<thead>
<tr>
<th>Site considerations</th>
<th>Comments</th>
<th>Mitigation required and conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line.</td>
<td>Partly interrupted and seasonal views from Hurlingham Park across the Thames. Permanent elements marginally visible from surrounding properties, but visible from River Thames and River Wandle.</td>
<td>Column and electrical kiosk to be given careful consideration. Planting to screen permanent plant. Adequate new planting would be important to protect visual amenity.</td>
</tr>
<tr>
<td>Particular considerations on sites where new permanent structures are required</td>
<td>Permanent structures at S18WH have the potential to have an indirect effect on the Sands End Conservation Area and the Putney Bridge Conservation Area. The appearance of the top structure and ventilation would therefore need to be carefully considered in the scheme design and some form of screening for the site may be required.</td>
<td>Any permanent structures would need to be of a high-quality design and/or screened in order to minimise the visual impact of the development on the setting of and views to and from the Sands End and the Putney Bridge Embankment conservation areas, and in order to comply with planning policy and English Heritage guidance.</td>
</tr>
<tr>
<td>Potential issues</td>
<td>The development could result in an indirect impact on two conservation areas through changes to the setting of and views to and from the designated areas. There is the potential to mitigate against any adverse impacts through a high-quality scheme design and/or screening.</td>
<td>The scheme design will need to be of a sufficiently high quality and may need to incorporate some screening in order that the potential visual intrusiveness of the development on the setting of and views to and from the Sands End Conservation Area and the Putney Bridge Conservation Area is minimised.</td>
</tr>
</tbody>
</table>

**Summary:** The site is suitable as a reception/intermediate site as it is unlikely to result in any direct impacts on the historic built environment and although the site has the potential to adversely impact on the landscape character of the River Thames, River Wandle and local views, these impacts could be mitigated through the scheme design and/or screening of the site.
## Water resources – hydrogeology and surface water

<table>
<thead>
<tr>
<th>Site considerations</th>
<th>Comments</th>
<th>Mitigation required and conclusions</th>
</tr>
</thead>
</table>
| Hydrogeological conditions (groundwater and surface water) | **Geology (thickness)**  
- Superficial geology and made ground (10m)  
- London Clay (41m)  
- Lambeth Group (20m)  
- Thanet Sand (10m)  

**Hydrogeology**  
- Piezometric level: ~ -24mAOD (~29mbgl)  

**Groundwater monitoring location**  
- EA hydrometry sites: TQ27-159 – approximately 615m southeast of the site.  

**Watercourses**  
- Adjacent to River Thames and River Wandle. | The shaft will be constructed to an invert level of approximately 38.49mbgl, therefore the shaft will be founded in the London Clay. Piezometric head in Chalk will be approximately 9.49m above the base of the construction. |
| SPZs and groundwater users | **SPZ**  
- Not located in a source protection zone defined by EA  

**EA licensed groundwater abstractions and details**  
- No public water supply  
- Four licensed abstraction boreholes within 2 km radius.  

Licence numbers:  
1. 28/39/39/0177 (2 boreholes)  
2. 28/39/42/0071 (1 borehole)  
3. 28/39/41/0081 (1 borehole)  

Locations:  
1. 877m northwest of the site (other side of the River Thames) | A simple volumetric approach has been used to calculate the catchment area of the abstraction borehole. A conservative mean annual recharge of 100 mm/year was used to calculate a radius for licensed abstraction boreholes as follows:  
1. 219m  
2. 274m  
3. 160m  

As a result, the shaft will not be located within any of these catchment areas. |
## Water resources – hydrogeology and surface water

<table>
<thead>
<tr>
<th>Site considerations</th>
<th>Comments</th>
<th>Mitigation required and conclusions</th>
</tr>
</thead>
</table>
| 2. 425m east of the site  
3. 937m south of the site | Operator:  
1. Trustees of the Hurlingham Club  
2. Hanson Quarry Prod Europe Ltd  
3. London Borough of Wandsworth | |
| Abstracted aquifer unit:  
1. Gravel  
2. Chalk  
3. Chalk | Abstraction purposes:  
1. Industrial, commercial and public service (sports grounds/facilities – spray irrigation)  
2. Industrial, commercial and public service (mineral products – general use)  
3. Industrial, commercial and public service (municipal grounds – make-up or top-up water) | |
| Abstraction quantity (annual):  
1. 15,000m³  
2. 23,515m³  
3. 8,000m³ | Local authorities (LA) unlicensed groundwater abstractions and details  
No abstraction borehole within 1km radius inside Wandsworth council boundary.  
Information pending from Hammersmith and Fulham council. | |
## Water resources – hydrogeology and surface water

<table>
<thead>
<tr>
<th>Site considerations</th>
<th>Comments</th>
<th>Mitigation required and conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borehole locations and depths</td>
<td>There are 14 historical records of water wells: 13 deep wells and one shallow well within 1km radius. Depth range: 101.8 – 192.02m Depth range: 6.88m</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Potential impacts on surface water features</td>
<td>The site is located adjacent to the River Thames and the River Wandle. The site is behind flood defences so the pollution risk is through drainage to the Thames and the River Wandle.</td>
<td>Work needs to be undertaken in consideration of Pollution Prevention Guidelines – PPG1, PPG5 and PPS23.</td>
</tr>
<tr>
<td>Potential impacts on groundwater (resources and quality)</td>
<td>No impact on groundwater at depth is likely since the shaft is to be constructed in London Clay (non-aquifer). At shallow depth, the shaft is located in alluvium, which is classified as a minor aquifer. Limited impact on shallow aquifer if water is excluded from the excavation by diaphragm wall or caissons.</td>
<td>See below (likely types of mitigation measures that will be required)</td>
</tr>
<tr>
<td>Likely types of mitigation measures that will be required</td>
<td>No mitigation required if groundwater is not impacted.</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Potential issues</td>
<td>The shaft is to be excavated in London Clay but to below piezometric head in Chalk. Potential pressure effects. Limited impact on flow in shallow aquifer.</td>
<td>Confined head in Chalk to be considered as part of geotechnical design. Impact on and mitigation for shallow aquifer will depend on construction design.</td>
</tr>
</tbody>
</table>

**Summary:** The site is suitable because the shaft is to be constructed in London Clay (non-aquifer). The Chalk piezometric head is likely to be approximately 9.49m above the base of construction and should be taken into account in the engineering design. No impact on the Chalk aquifer is expected. Superficial deposits at the site comprise alluvium, which is classified as a minor aquifer, and which is likely to be subject to a limited impact on flow due to diaphragm walling or caissons.

In terms of surface water resources, the site is suitable as a reception/intermediate site because there is no direct pathway to the Thames. Standard mitigation would be required to manage drainage (behind flood defences) to prevent pollution.
<table>
<thead>
<tr>
<th>Site considerations</th>
<th>Comments</th>
<th>Mitigation required and conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statutory designations</td>
<td>None within 2km</td>
<td>None required</td>
</tr>
<tr>
<td>Non-statutory designated wildlife sites</td>
<td>River Thames and Tidal Tributaries SMI is adjacent to the site.</td>
<td>The construction of the overflow culvert is likely to affect the Thames and would potentially require negotiation with the EA, post-works restoration and compensatory habitat provision.</td>
</tr>
<tr>
<td>BAP priority habitats</td>
<td>This site consists of hardstanding. The Thames Tideway is immediately adjacent to the site and constitutes a London BAP habitat. The River Wandle also lies immediately adjacent to the site and forms part of the London BAP habitat, ‘Rivers and streams’.</td>
<td>The construction of the overflow culvert is likely to affect the Thames and would potentially require negotiation with the EA, post-works restoration and compensatory habitat provision.</td>
</tr>
<tr>
<td>protected or otherwise notable species within the study area</td>
<td>Site does not appear to support any habitat. No direct impacts on aquatic ecology receptors, although piling close to the riverbank could result in impacts on fish in the River Thames. Reach immediately downstream of this site known to support spawning smelt. River Wandle may provide spawning and nursery areas for fish.</td>
<td>The construction of the overflow culvert would require detailed aquatic invertebrate and fish investigation. Controls may need to be placed on piling operations close to the riverbank. Ideally, shaft site should be sited as far from River Thames and River Wandle as possible. Negotiation with EA required. Care will need to be taken to avoid water quality impacts on the River Wandle.</td>
</tr>
</tbody>
</table>
### Ecology (terrestrial and aquatic)

<table>
<thead>
<tr>
<th>Site considerations</th>
<th>Comments</th>
<th>Mitigation required and conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential issues</td>
<td>The cumulative impact of all jetties and other above-ground structures proposed within the Thames may increase flow velocity in the river, with effects on juvenile migratory fish.</td>
<td>Consideration needs to be given to the cumulative impacts on hydrodynamics, with reference to known critical flow velocities for fish. Not considered significant at a site specific level.</td>
</tr>
</tbody>
</table>

**Summary:** The site is suitable as a reception/intermediate site as no receptors of ecological value have currently been identified on the site and impacts are likely to be limited. The construction of the overflow culvert, and any other works affecting the Thames foreshore (including piling behind the river wall), would potentially require negotiation with the EA, post-works restoration and compensatory habitat provision.
### Flood risk assessment

<table>
<thead>
<tr>
<th>Site considerations</th>
<th>Comments</th>
<th>Mitigation required and conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flood risk zone</td>
<td>Flood Zone 3 (one in 200-year) but defended to the one in 1,000-year flood level. There is the potential for a breach, for which mitigation would need to be considered as part of the FRA. Sewage transmission infrastructure is considered to be water compatible according to Table D.2 of PPS25.</td>
<td>An FRA would be required to assess the risk of flooding to the site.</td>
</tr>
<tr>
<td>Assessment of conditions for SUDS</td>
<td>There is space for SUDS and the site is existing brownfield. More investigation is required to determine if the site is suitable for infiltration SUDS as a result of the superficial geology.</td>
<td>N/A</td>
</tr>
<tr>
<td>Potential issues</td>
<td>No other issues.</td>
<td>No other issues.</td>
</tr>
</tbody>
</table>

**Summary:** The site is suitable from a flood risk perspective, as it is protected from the one in 1,000-year flood level, and potential space on the site means that SUDS are likely to be suitable. Further investigation would be required to determine if the site is suitable for infiltration SUDS as a result of the superficial geology.
<table>
<thead>
<tr>
<th>Air quality</th>
<th>Site considerations</th>
<th>Comments</th>
<th>Mitigation required and conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQMA</td>
<td>The air quality objective for NO₂ is exceeded on major roads in vicinity of site.</td>
<td>There is a need for more site specific data.</td>
<td></td>
</tr>
<tr>
<td>Sensitive receptors</td>
<td>There are residential properties along Armoury Way (A217) to the west of the site and the South Circular (A205). The nearest residential properties are on Armoury Way, some distance from the site.</td>
<td>There are relevant air quality sensitive receptors present along the route the construction traffic is likely to take.</td>
<td></td>
</tr>
<tr>
<td>Existing traffic issues</td>
<td>The main traffic issue in this area is exhaust emissions along the A205, A217 and A3209 corridors.</td>
<td>Additional vehicle emissions have a high potential to interfere with local air quality action plan policies.</td>
<td></td>
</tr>
<tr>
<td>Existing sources of significant air pollutants</td>
<td>See existing traffic issues above.</td>
<td>See existing traffic issues above.</td>
<td></td>
</tr>
<tr>
<td>Notable gaps in existing air quality monitoring</td>
<td>There is no data available at the likely access to A217 and the nearest existing data indicates that existing AQLV exceeded.</td>
<td>Collect minimum six months’ diffusion tube data at the nearest residential receptors to the site access to A217 or other point of access to major road network.</td>
<td></td>
</tr>
<tr>
<td>Potential issues</td>
<td>The risk from additional exhaust emissions from construction HGVs is undefined at present. The risk from dust impacts is low.</td>
<td>Minimise HGV movements on the local road network during the peak hours. Standard dust control measures will minimise the effect of fugitive dust on nearby sensitive receptors.</td>
<td></td>
</tr>
</tbody>
</table>

**Summary:** This site is suitable for use as a reception/intermediate site, as there is likely to be sufficient distance from the site to potential dust sensitive receptors that the risk of a perceptible impact is low, provided that standard dust control measures are in place. There is potential for HGV movements on the local road network to cause localised air quality impacts, however this could be mitigated by minimising the movement of HGVs during peak hours.
<table>
<thead>
<tr>
<th>Site considerations</th>
<th>Comments</th>
<th>Mitigation required and conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Noise band level</strong> (from Defra noise maps)</td>
<td>Information from Defra noise maps indicates daytime noise levels of less than 58dB L_{Aeq} and night-time noise levels of less than 50dB L_{Aeq} at residential properties, located at residential flats at Mandel House on Eastfields Avenue to the west of the site. The residential properties facing the site are likely to experience relatively low daytime and night-time noise levels due to their distance from any major roads. Noise levels from the Defra noise maps provide an indication of prevailing noise levels only, and will not be employed in any detailed assessments for chosen sites.</td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Sensitive receptors</strong></td>
<td>There are sensitive receptors located to the west of the site at Mandel House, Eastfields Avenue. These consist of nine-storey high residential dwellings. Further residential properties are located at Anchor House on Smugglers Way. Sensitive receptors at Mandel House, Eastfields Avenue, are located at a distance of approximately 120m from the site’s western boundary. Receptors at Anchor House are located approximately 200m from the eastern site boundary. The site access route is proposed to be along The Causeway and on to Smugglers Way, where there are receptors located at Anchor House, Bluewater House, Compass House and Dolphin House, and therefore there is likely to be an adverse noise impact from HGV traffic.</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
## Noise

<table>
<thead>
<tr>
<th>Site considerations</th>
<th>Comments</th>
<th>Mitigation required and conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing traffic issues</td>
<td>Local road traffic, including that on the A3029 to the southwest and the A217 to the south, will contribute to the local noise climate.</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Existing sources of significant noise emissions</td>
<td>Local road traffic, including that on the A3029 to the southwest and the A217 to the south, will contribute to the local noise climate.</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
| Potential issues                     | **Construction:**  
The construction period is estimated at four to five years and working hours will be 24 hours, Monday to Saturday. This has the potential to result in adverse noise impacts to any sensitive receptors in close proximity to the site.  
A relatively large number of daily HGV movements are anticipated. This number of vehicle movements is likely to result in adverse noise impacts on nearby sensitive receptors if they travel along Smugglers Way and past residential properties at Anchor House, Bluewater House, Compass House and Dolphin House.  
The immediate site area is relatively large and ancillary plant should be sited as far as is practicable from surrounding sensitive receptors. Situating plant in the southern area of the site would maximise the distance between them and the nearest sensitive receptors, and minimise potential disturbance.  
Proposed 3m site boundary fencing will provide useful noise mitigation to some plant and construction activities. However, it will not provide any attenuation to higher floor levels at residential flats located at Mandel House on Eastfields Avenue. | Adherence to the good site practices provided in BS5228.  
Siting of noisy equipment and construction activities as far as is practicable from sensitive receptors.  
Provision of site boundary noise fences.  
Planning of HGV haul route so as not to pass by Anchor House, Bluewater House, Compass House or Dolphin House on Smugglers Way.  
Undertake noisy construction activities during daytime hours only to reduce the noise impact. |
## Noise

<table>
<thead>
<tr>
<th>Site considerations</th>
<th>Comments</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Vibration resulting from general construction works is not anticipated to result in an adverse impact. The nearest receptors to the proposed shaft location are at a distance of approximately 120m, and it is unlikely that vibration levels will result in minor cosmetic damage or annoyance during shaft sinking. Vibration from tunnelling should be considered on a case-by-case basis at particular sensitive locations. <strong>Operation:</strong> With appropriate attenuation (if necessary), there is no reason why noise from the ventilation column and top chamber should result in adverse noise impacts to nearby sensitive receptors.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Summary:** The site is suitable as a reception/intermediate site due to the large distances to the nearest residential receptors at Mandel House, Eastfields Avenue and Anchor House on Smugglers Way. However, it should be noted that shielding afforded by site perimeter barriers would provide limited further mitigation against noise due to the height of these receptors. There are anticipated to be a large number of vehicles associated with the construction phase which could potentially cause an adverse noise impact on residential properties on Smugglers Way. This could, to some extent, be reduced by access to the site, using both access routes afforded by Smugglers Way. However, such mitigation is limited by the route being one-way to the south and by a turning restriction (from one direction only) at the junction with the A217 to the south.
Site suitability report S18WH – Appendix 9

### Land quality

<table>
<thead>
<tr>
<th>Site location</th>
<th>Grid Reference: 525549, 175232</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current site use</td>
<td>The area visible from the southern site boundary/entrance is in use for waste storage (metals, plastics and possibly composting areas). This suggests that the area is being used in conjunction with the adjacent waste transfer station.</td>
</tr>
<tr>
<td>Topography</td>
<td>The site appears to be relatively flat land.</td>
</tr>
<tr>
<td>Field evidence of contamination (ie, visual/olfactory)</td>
<td>None observed from boundary, although note that the site was not accessible.</td>
</tr>
</tbody>
</table>
| Current surrounding land use (immediately adjacent to site) | North: River Thames.  
East: Cory Environmental Western Riverside Solid Waste Transfer Station – including a significant new building under construction on the site.  
South: The site entrance is at the end of the ‘The Causeway’ access road, which runs along the south of the site. At the end of the road, a cycle route path continues to the west.  
West: Mud flats and a channel leading to the Thames runs along the western boundary of the site (the River Wandle). Beyond the channel is an industrial estate, and further to the north on the riverside and beyond, further open land and six- to seven-storey residential apartments are located. |

### Geological and hydrogeological information

<table>
<thead>
<tr>
<th>Geological strata</th>
<th>Geology (thickness)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Superficial geology and made ground (10m)</td>
<td></td>
</tr>
<tr>
<td>• London Clay (41m)</td>
<td></td>
</tr>
<tr>
<td>• Lambeth Group (20m)</td>
<td></td>
</tr>
<tr>
<td>• Thanet Sand (10m)</td>
<td></td>
</tr>
</tbody>
</table>

| Underlying aquifer classes | Non-aquifer: London Clay  
Minor aquifer: River terrace deposits, Lambeth Group, Thanet Sand  
Major aquifer: Chalk |

| Groundwater vulnerability/Soil classification (High/Intermediate/Low/Not applicable) | River terrace deposits – minor aquifer  
High leaching potential of soils (U)  
Note: Soil information for urban areas is based on fewer observations than elsewhere in the country. Therefore, a worst case vulnerability (H) is assumed until proven otherwise. |

[1]  
[2]
<table>
<thead>
<tr>
<th>Land quality</th>
<th>Source protection zone details</th>
<th>Surface water receptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not located in a source protection zone defined by EA.</td>
<td></td>
<td>River Wandle (adjacent western boundary)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>River Thames (45m north)</td>
</tr>
</tbody>
</table>

| Relevant information within a 250m radius of the site |

<table>
<thead>
<tr>
<th>Historical potentially contaminating activities (based on mapping data)</th>
<th>On site</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Water works, 1896 -1946</td>
</tr>
<tr>
<td></td>
<td>• Wharf (transport support and cargo handling), (northern part of site), 1909-present</td>
</tr>
<tr>
<td></td>
<td>• Refuse units (centre of site), 1959-1996</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Off site</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Coal bunker (adjacent east boundary), 1956-1972</td>
</tr>
<tr>
<td></td>
<td>• Electricity works (10m south), 1952-1972</td>
</tr>
<tr>
<td></td>
<td>• Cement works (10m south), 1980-1988</td>
</tr>
<tr>
<td></td>
<td>• Potential fuel related tanks (10m south), 1907</td>
</tr>
<tr>
<td></td>
<td>• Flour mill (20m southwest), 1862-1898</td>
</tr>
<tr>
<td></td>
<td>• Solid waste transfer station (25m east), 1980-present</td>
</tr>
<tr>
<td></td>
<td>• Infilled water – canal (25m south), 1949</td>
</tr>
<tr>
<td></td>
<td>• Tanks – contents unknown, numerous located east and west (closest 30m east), 1968</td>
</tr>
<tr>
<td></td>
<td>• Gas works (40m east), 1896-1972</td>
</tr>
<tr>
<td></td>
<td>• Firework factory (40m west), 1896-1898</td>
</tr>
<tr>
<td></td>
<td>• Mill (65m southwest), 1952-1972</td>
</tr>
<tr>
<td></td>
<td>• Railway lines (closest 80m south), 1862-present</td>
</tr>
<tr>
<td></td>
<td>• Infilled water – stream (80m west), 1899</td>
</tr>
<tr>
<td></td>
<td>• Oil works (90m west), 1907</td>
</tr>
<tr>
<td></td>
<td>• Saw mills (95m east), 1862-1895</td>
</tr>
<tr>
<td></td>
<td>• Gas works (110m south), 1952-1988</td>
</tr>
<tr>
<td></td>
<td>• Weapons and ammunitions/firework factory – manufacture and storage (120m northwest), 1896-1899</td>
</tr>
<tr>
<td></td>
<td>• Chemical works (155m east), 1896-1898</td>
</tr>
<tr>
<td></td>
<td>• Refuse tip (public), (155m east), 1980-present</td>
</tr>
<tr>
<td></td>
<td>• Laundry (180m southwest), 1909-1920</td>
</tr>
<tr>
<td></td>
<td>• Engineering works (185m west), 1951</td>
</tr>
<tr>
<td></td>
<td>• Oil distributing works (185m west), 1951</td>
</tr>
<tr>
<td></td>
<td>• Gas holder (185m south), 1959-present</td>
</tr>
<tr>
<td></td>
<td>• Food works (215m west), 1909-1951</td>
</tr>
<tr>
<td>Land quality</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Pollution incidents to controlled waters</strong></td>
<td></td>
</tr>
<tr>
<td>Three:</td>
<td></td>
</tr>
<tr>
<td>• Oils – unknown, minor incident (adjacent western site boundary – within causeway)</td>
<td></td>
</tr>
<tr>
<td>• Storm sewage, minor incident (15m west, within River Wandle)</td>
<td></td>
</tr>
<tr>
<td>• Miscellaneous – unknown, minor incident (95m west)</td>
<td></td>
</tr>
<tr>
<td><strong>Landfill sites</strong></td>
<td></td>
</tr>
<tr>
<td>One:</td>
<td></td>
</tr>
<tr>
<td>• Historical landfill site named Feathers Wharf, no data available (on site, southwest corner)</td>
<td></td>
</tr>
<tr>
<td><strong>Other waste sites</strong></td>
<td></td>
</tr>
<tr>
<td>Ten:</td>
<td></td>
</tr>
<tr>
<td>• Refuse unit (on site), 1959-1996</td>
<td></td>
</tr>
<tr>
<td>• Feathers Wharf – licensed waste management facility (on site, southeast corner). Household, commercial and industrial transfer station operated by Cory Environmental Ltd, 2008-present</td>
<td></td>
</tr>
<tr>
<td>• Western Riverside – special waste transfer station (10m east), operated by Cory Environmental Ltd, 1993-present</td>
<td></td>
</tr>
<tr>
<td>• Feathers Wharf – registered waste transfer site (70m east), licensed to accept &lt;250,000 tonnes p/a. License cancelled.</td>
<td></td>
</tr>
<tr>
<td>• Western Riverside Transfer Station – registered waste transfer site (125m east), licensed to accept &gt;250,000 tonnes p/a, civic amenity with transfer operated by Cleanaway Ltd. Record superseded.</td>
<td></td>
</tr>
<tr>
<td>• Western Riverside – special waste transfer station (130m east), operated by Cleanaway Ltd, 1993-present</td>
<td></td>
</tr>
<tr>
<td>• Western Riverside Transfer Station – registered waste transfer site (150m east), licensed to accept &gt;250,000 tonnes p/a, civic amenity with transfer operated by Cleanaway. Record superseded.</td>
<td></td>
</tr>
<tr>
<td>• Refuse tip (155m east), 1980-present</td>
<td></td>
</tr>
<tr>
<td>• Friendship Way, registered waste transfer site (170m east), licensed to accept &gt;250,000 tonnes p/a, civic amenity with transfer. Record superseded.</td>
<td></td>
</tr>
<tr>
<td>• Western Riverside Transfer Station – registered waste transfer site (190m east), licensed to accept &gt;250,000 tonnes p/a, civic amenity with transfer operated by Cleanaway. Record superseded.</td>
<td></td>
</tr>
<tr>
<td><strong>Registered radioactive substances</strong></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
</tr>
<tr>
<td><strong>Fuel stations/depots</strong></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>
## Land quality

### Contemporary trade directory entries

Thirteen:
- Waste disposal service, active (50m north)
- Gas supplier, inactive (120m southeast)
- Refrigeration equipment – commercial, active (120m southeast)
- Builder’s merchant, active (120m southeast)
- Car dealers, active (130m west)
- Distribution services, active (140m west)
- Textile manufacturing, active (140m west)
- Car breakdown and recovery services, active (170m west)
- Cleaning services – commercial, inactive (190m south)
- Fireplaces and mantelpieces, active (220m west)
- Soft furnishings – manufacturers, inactive (220m west)
- Oil fuel distributors, active (240m west)
- Garage services, inactive (250m west)

### Site classification based on above information

<table>
<thead>
<tr>
<th>Potential site contaminants derived from surface sources (eg, contaminants in made ground)</th>
<th>Activity</th>
<th>Distance and direction to site</th>
<th>Contaminants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Some potential for made ground from potential filling operations during development 2) Wharf (transport support and cargo handling) 3) Landfill/refuse units 4) Waterworks</td>
<td>1) On site and directly adjacent 2) On site 3) On site 4) On site</td>
<td>1) Metals, TPH, PAHs 2) Metals, TPH, PAHs 3) TPH, metals, PAHs, solvents, nitrogen compounds 4) Metals, nitrogen compounds, PAHs, phosphorous, sulphur</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Potential site contaminants derived from offsite sources and transported to site</th>
<th>Activity</th>
<th>Distance and direction to site</th>
<th>Contaminants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Coal bunker 2) Electricity works 3) Cement works 4) Potential fuel-related tanks 5) Gas works 6) Firework</td>
<td>1) Adjacent eastern boundary 2) 10m south 3) 10m south 4) 10m south 5) 40m east 6) 40m west</td>
<td>1) Metals, phenols, sulphur, PAHs 2) PCBs 3) TPH, metals 4) PAHs, TPH, Metals 5) Metals</td>
<td></td>
</tr>
<tr>
<td>Land quality</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>factory</td>
<td>cyanide, sulphate, phenols, PAHs, TPH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>cyanide, sulphate, phenols, PAHs, TPH</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Potential contamination pathways to site (Conceptual Site Model)**

**Source 1:** A1, A3, B4  
**Source 2:** D6, E1  
Note: Refer to schematic Conceptual Site Model for explanation of site-specific source-pathway-receptors

**Contamination category**  
**Category 3 – assessed as high risk**

**Summary:** The site is less suitable as a reception/intermediate site due to the high potential for contamination to have occurred, specifically from the waterworks, landfill and wharf operations on site and the various works operations (specifically the gas works) in the vicinity of the site. This potentially poses a risk to construction workers and adjacent human receptors through direct contact and inhalation exposure pathways.

**Notes:**
1. From BGS Geological Model, giving average ground condition profile. Local near surface conditions may vary, particularly within the river.
2. Soil information for urban areas is based on fewer observations than elsewhere in the country. Therefore, a worst case vulnerability (H) is assumed until proven otherwise.
3. Refer to schematic Conceptual Site Model for explanation of site-specific source-pathway-receptors
Appendix 10 – Pre phase one consultation

10.1 Consultation comments

10.1.1 A series of consultations on the shortlisted sites were held with London local authorities, statutory and other pan-London stakeholders during July to September 2009 and January to March 2010. This section summarises factual comments that have been made by consultees, and which have informed the SSR assessments.

London Borough of Wandsworth

10.7.2 The council advised that the site is designated for mixed-use development, commercial use, public open space and riverside works in the core strategy preferred options consultation document. The site consists of warehouses. It was formerly used as a waste transfer station and is temporarily being used as a material recycling centre for three years, as well as possible use as a truck depot. A National Grid tunnel is located on site. There are no residential dwellings on the site, but residential properties are currently being developed to the west of the site. The availability of the site in terms of timescales would need to be considered.

English Heritage

10.7.3 English Heritage stated that mitigation may resolve associated archaeological issues.

Environment Agency

10.7.4 The Environment Agency stated that there are plans to remove the half-tide (Environment Agency) weir in partnership with Wandsworth. Currently, there are contaminated silts situated behind the half-tide weir. The current road tanker movements are of concern but there are plans to eliminate these. The condition of the walls would need to be considered. To the west of the site, there is a residential/retreated defence area. The Environment Agency advised that the potential for enhancement at the site is significant and that the movement of people from Wandsworth Town Centre to the river area is being encouraged and will increase.

Port of London Authority

10.7.5 The Port of London Authority advised that operation at the site would need to be two hours either side of high tide. The current wharf is not safeguarded, although it has been considered. A half-tidal lock is located at the site.

Transport for London

10.7.6 No comment.
Other statutory consultees

10.7.7 The Greater London Authority stated that there are industrial development proposals in place at Feathers Wharf. However, there had been no development during the 18 months prior to September 2009.
Contacts

For information about the Thames Tideway Tunnel

Call: 0800 0721 086 Lines are open 24 hours a day
Visit: www.thamestidewaytunnel.co.uk
Email: info@tidewaytunnels.co.uk

For our language interpretation service call 0800 0721 086

For information in Braille or large print call 0800 0721 086

For information about acceptance of our application and the examination process please contact the Planning Inspectorate.

Call: 0303 444 5000
Visit: http://infrastructure.planningportal.gov.uk