Appendix B – Hammersmith Pumping Station

B.1 Introduction

B.1.1 This appendix sets out the site selection process that we used and our rationale for identifying our preferred phase one and phase two consultation sites to intercept the Hammersmith Pumping Station CSO.

Type of site

B.1.2 We need a worksite to connect the local combined sewer overflow (CSO), known as the Hammersmith Pumping Station CSO, to the main tunnel. To enable the connection to be made the site needs to be as close as possible to the line of the existing sewers.

Site selection process

B.1.3 All potential worksites have been identified in accordance with our Site selection methodology paper (SSM), which involved a ‘sieving’ approach, commencing with identification of all potentially suitable areas of land (excluding concentrated residential sites and World Heritage Sites) and passing these sites through increasingly detailed levels of assessment to move from a long list to a draft short list, a final short list and finally a list of preferred sites for phase one consultation.

B.1.4 A plan showing all the sites considered for the interception of the Hammersmith Pumping Station CSO and how they progressed during the site selection process can be found in Annex B.1.

Preferred site for phase one and phase two consultation

B.1.5 The table below identifies our preferred sites at phase one and phase two consultation to intercept the Hammersmith Pumping Station CSO. Section B2 of this appendix provides the details of how we identified our preferred phase one site. Sections B3-B5 provide details of why and how we have changed our site for phase two consultation.

<table>
<thead>
<tr>
<th>Phase one consultation site:</th>
<th>Hammersmith Pumping Station (adjacent to Hammersmith Pumping Station, Chancellors Road)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase two consultation site:</td>
<td>Hammersmith Pumping Station (adjacent to Hammersmith Pumping Station, Distillery Road)</td>
</tr>
</tbody>
</table>

B.2 Site selection up to phase one consultation

Assessment of the long list sites

B.2.1 The long list of potential sites to intercept the Hammersmith Pumping Station CSO was created by conducting a desktop survey of the land in the vicinity of the existing sewer.
B.2.2 In total, 11 sites were included on the long list. These sites were assessed having regard to the high-level considerations set out in Table 2.2 of the SSM (hereafter referred to as Table 2.2) including (site size, site features, availability of jetty/wharf and access), planning and environment (heritage, landscape/townscape, open space and ecological) and community and property (neighbouring land uses, site use, Special Land/Crown Land and acquisition costs) considerations.

B.2.3 The table below provides a summary of the outcome of the Table 2.2 assessment in respect of the long list of sites considered for the interception of this CSO. Sites which were assessed as being the least constrained when considered against Table 2.2 considerations passed to the draft short list. This did not necessarily mean that these sites would ultimately be judged as suitable, but that no significant constraints were identified in relation to the high-level considerations addressed at Table 2.2. Sites that were judged to be more constrained were not recommended to be retained on the short list for more detailed assessment. The main rationale for the exclusion of these sites at this stage is summarised in the table.

**Table B.1 Long list to draft short list for the interception of the Hammersmith Pumping Station CSO (Table 2.2 assessment)**

<table>
<thead>
<tr>
<th>Site ID</th>
<th>Site name/ description</th>
<th>Recommendation and rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>C04XA</td>
<td>Foreshore, adjacent to Chancellors Wharf</td>
<td>Recommendation: To draft shortlist</td>
</tr>
<tr>
<td>C04XB</td>
<td>Paved area fronting River wall</td>
<td>Recommendation: Not to draft shortlist</td>
</tr>
<tr>
<td></td>
<td>Rationale: The site is thin and there are likely to be restrictive working conditions.</td>
<td></td>
</tr>
<tr>
<td>C04XC</td>
<td>Vacant lot adjacent to the River</td>
<td>Recommendation: Not to draft shortlist</td>
</tr>
<tr>
<td></td>
<td>Rationale: The engineering connection to the sewer is long and difficult</td>
<td></td>
</tr>
<tr>
<td>C04XD</td>
<td>Parking area between offices</td>
<td>Recommendation: Not to draft shortlist</td>
</tr>
<tr>
<td></td>
<td>Rationale: The site is thin and there are likely to be restrictive working conditions.</td>
<td></td>
</tr>
<tr>
<td>C04XE</td>
<td>Crisp Road</td>
<td>Recommendation: Not to draft shortlist</td>
</tr>
<tr>
<td></td>
<td>Rationale: The site is too thin and too small.</td>
<td></td>
</tr>
<tr>
<td>C04XF</td>
<td>Adjacent to Hammersmith Pumping Station, Chancellors Road</td>
<td>Recommendation: Not to draft shortlist</td>
</tr>
<tr>
<td></td>
<td>Rationale: The site is too small to permit a drop shaft and interception chamber</td>
<td></td>
</tr>
<tr>
<td>C04XG</td>
<td>Frank Banfield Park</td>
<td>Recommendation: To draft shortlist</td>
</tr>
</tbody>
</table>
### Site ID | Site name/ description | Recommendation and rationale
---|---|---
C04XH | Old (abandoned) Pumping Station | **Recommendation:** Not to draft shortlist  
**Rationale:** The works area is very restricted and the engineering connection to the sewer is long and difficult
C04XJ | Adjacent to Hammersmith Pumping Station, Chancellors Road | **Recommendation:** To draft shortlist
C04XL | Part development site to south east of pumping station inlet | **Recommendation:** To draft shortlist
C04XM | Part development site to north east of pumping station inlet | **Recommendation:** To draft shortlist

NB. The Site ID and Site name/description were used as an internal mechanism to record and describe the site but may be updated if necessary.

B.2.4 Of the 11 sites identified, five were assessed as potentially suitable and passed to the draft short list while six sites were eliminated as being unsuitable.

#### Assessment of draft short list sites

B.2.5 The five draft short list sites identified for further assessment at the next stage were:
- C04XA: Foreshore, adjacent to Chancellors Wharf
- C04XG: Frank Banfield Park
- C04XJ: Adjacent to Hammersmith Pumping Station, Chancellors Road
- C04XL: Near Hammersmith Pumping Station off Distillery Road
- C04XM: Adjacent to Hammersmith Pumping Station off Distillery Road.

B.2.6 These sites were further assessed by the engineering, planning, environment, community and property disciplines having regard to the considerations set out in Table 2.3 of the SSM (hereafter referred to as Table 2.3). This stage of the process built on the information gathered and assessment undertaken at long list stage but focussed on more detailed local considerations.

B.2.7 At this stage, we also consulted with each of the London boroughs and pan-London stakeholders such as the Environment Agency and English Heritage to seek their views on the suitability of sites for the short list.

B.2.8 The table below summarises the outcome of the Table 2.3 assessment of the draft short list of sites. Sites which were assessed as being the least constrained when considered against Table 2.3 considerations were
retained on the short list to pass to the next stage of assessment. This did not necessarily mean that a site would ultimately be judged as suitable, but that no significant constraints were identified in relation to the considerations addressed at Table 2.3. Sites that were judged to be more constrained were not recommended to be retained on the short list for more detailed assessment.

**Table B.2 Draft short list to final short list for the interception of the Hammersmith Pumping Station CSO (Table 2.3 assessment)**

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<td>Foreshore, adjacent to Chancellors Wharf</td>
<td><strong>Recommendation:</strong> Retain on short list</td>
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<td>C04XG</td>
<td>Frank Banfield Park</td>
<td><strong>Recommendation:</strong> Retain on short list</td>
</tr>
<tr>
<td>C04XJ</td>
<td>Hammersmith Pumping Station (off Chancellors Road)</td>
<td><strong>Recommendation:</strong> Retain on short list</td>
</tr>
<tr>
<td>C04XL</td>
<td>Near Hammersmith Pumping Station off Distillery Road</td>
<td><strong>Recommendation:</strong> Retain on short list</td>
</tr>
<tr>
<td>C04XM</td>
<td>Adjacent to Hammersmith Pumping Station off Distillery Road</td>
<td><strong>Recommendation:</strong> Retain on short list</td>
</tr>
</tbody>
</table>

NB. The Site ID and Site name/description were used as an internal mechanism to record and describe the site but may be updated if necessary.

**B.2.9** Of the five sites on the draft short list, all were assessed as potentially suitable and passed to the final short list.

**Assessment of the final short list sites**

**B.2.10** The five sites identified for inclusion on the final short list and assessment at the next stage were:

- C04XA: Foreshore, adjacent to Chancellors Wharf
- C04XG: Frank Banfield Park
- C04XJ: Hammersmith Pumping Station (off Chancellors Road)
- C04XL: Near Hammersmith Pumping Station off Distillery Road
- C04XM: Adjacent to Hammersmith Pumping Station off Distillery Road.

**B.2.11** A site suitability report (SSR) was then prepared for each of the final shortlisted sites. These reports contained an assessment of each site’s suitability having regard to engineering, planning, environment, community
and property considerations. At this stage in the process, sites were assessed in isolation without comparison to other sites or regard to tunnelling strategy. Sites were evaluated by each discipline using technical knowledge and professional judgement as appropriate and assessed as either suitable, less suitable or not suitable from that discipline's perspective.

B.2.12 A summary of the conclusions of each discipline’s assessment from the site suitability reports is provided below.

**C04XA: Foreshore, adjacent to Chancellors Wharf**

B.2.13 Site C04XA is situated on the foreshore of the River Thames within the London Borough of Hammersmith and Fulham. The site is located directly adjacent to properties located on Chancellors Wharf and can be accessed via Chancellors Road.

B.2.14 A paved open space and public walkway separates Chancellors Wharf and the foreshore. The surrounding area is characterised by a range of land uses, including residential, leisure, light industrial, warehousing and office developments. The nearest residential properties are at Chancellors Wharf.

B.2.15 **Engineering:** The site was assessed as less suitable for use as a CSO site because it has poor access and is relatively small. However, being on the foreshore, its size could be increased.

B.2.16 **Planning:** On balance, the site was assessed as being less suitable for use as a site to intercept this CSO because of the proximity of residential dwellings and also the site is subject to several policy designations. With mitigation, these impacts could be reduced.

B.2.17 **Environment:** Overall, the site was assessed as less suitable for use as a CSO site. The site was considered likely to be suitable from the perspectives of archaeology, built heritage, and hydrogeology. However, the site was considered less suitable from the perspective of transport, townscape, surface water, flood risk, ecology, air quality, noise, and land quality, although these impacts may be reduced by mitigation.

B.2.18 **Socio-economic and community:** The site was assessed as less suitable for use as a CSO site due to impacts on residential properties and users of the Thames path and shore-side open space.

B.2.19 **Property:** The site was assessed as suitable for use as a CSO site as there is likely to be an acceptable acquisition cost subject to an agreement with the Crown or PLA.

**C04XG: Frank Banfield Park**

B.2.20 Site C04XG is situated on an area of public open space known as Frank Banfield Park within the London Borough of Hammersmith and Fulham. The park has grassed amenity areas, paths and play areas.

B.2.21 The surrounding area is predominantly characterised by residential properties, but with a mix of other uses, including offices and commercial space. The eastern boundary of the park is Fulham Palace Road which
contains a number of residences and businesses. Charing Cross Hospital is located to the southeast.

**B.2.22 Engineering:** The site was considered **suitable** for use as a CSO site because it has good access and can facilitate all the site requirements. However, the site is situated more than 200m from the river.

**B.2.23 Planning:** On balance, the site was assessed as being **less suitable** for use to intercept this CSO because the site is subject to several policy designations, including being located within a conservation area. Furthermore, use of the site would result in the temporary loss of public open space and impacts on residential dwellings. Substantial mitigation would be required for these impacts to be reduced.

**B.2.24 Environment:** Overall, the site was assessed as **suitable** for use as a CSO site. The site was considered likely to be **suitable** from the perspectives of transport, archaeology, built heritage, water resources, ecology, and flood risk. However, the site was considered **less suitable** from the perspective of townscape, air quality, noise and land quality, although these impacts may be reduced by mitigation.

**B.2.25 Socio-economic and community:** The site was assessed as **less suitable** for use as a CSO site due to impacts on Frank Banfield Park, specifically a play area, and residential properties. Permanent impacts may also result from structures and hardstanding associated with operations.

**B.2.26 Property:** The site was assessed as **suitable** for use as a CSO site as there is likely to be an acceptable acquisition cost. However, acquisition risk is associated with the site due to its park status.

**C04XJ: Hammersmith Pumping Station (off Chancellors Road)**

**B.2.27** Site C04XJ is situated within a vacant former industrial site known as Hammersmith Embankment, within the London Borough of Hammersmith and Fulham.

**B.2.28** The site is bounded to the north by Chancellors Road, directly in front of its junction with Crisp Road, and to the east by an existing Thames Water pumping station. The surrounding area is predominantly residential but includes a mix of other uses, including the pumping station.

**B.2.29 Engineering:** The site was considered **suitable** for use as a CSO site because it has good access and can facilitate all the site requirements. However, the site is situated more than 200m from the river.

**B.2.30 Planning:** On balance, the site was assessed as being **suitable** for use to intercept this CSO. The site is subject to several policy designations. Furthermore, use of the site would result in impacts on residential amenity. However, with appropriate mitigation, any impacts could be reduced.

**B.2.31 Environment:** Overall, the site was assessed as **suitable** for use as a CSO site. The site was considered likely to be **suitable** from the perspectives of transport, archaeology, water resources, ecology, built heritage and townscape. However, the site was considered **less suitable**
from the perspective of flood risk, air quality, noise and land quality, although these impacts may be reduced by appropriate mitigation.

B.2.32 **Socio-economic and community:** The site was assessed as **suitable** for use as a CSO site as the site is unlikely to have a significant impact on the local community as it is located on a brownfield site. While construction related impacts may be experienced by adjacent residences and businesses, these can be reduced through appropriate mitigation.

B.2.33 **Property:** The site was assessed as **suitable** for use as a CSO site. However, this may change to **less suitable** if a proposed development on the site commences.

**C04XL: Near Hammersmith Pumping Station off Distillery Road**

B.2.34 Site C04XL is situated within a vacant former industrial site known as Hammersmith Embankment, within the London Borough of Hammersmith and Fulham.

B.2.35 The site is bounded to the north by Chancellors Road, and adjoins the southeast corner of an existing Thames Water pumping station. The surrounding area is predominantly residential with Frank Banfield Park to the east and the River Thames to the west.

B.2.36 **Engineering:** The site was assessed as **suitable** for use as a CSO site because it has good access and is adequate in size.

B.2.37 **Planning:** On balance, the site was assessed as being **suitable** for use as a site to intercept this CSO. The site is subject to several planning and environmental policy designations. However, with appropriate mitigation, any impacts could be reduced.

B.2.38 **Environment:** Overall, the site was assessed as **suitable** for use as a CSO site. The site was considered likely to be **suitable** from the perspectives of transport, archaeology, water resources, ecology, flood risk, built heritage and townscape. However, the site was considered **less suitable** from the perspective of air quality, noise and land quality although these impacts may be reduced by appropriate mitigation.

B.2.39 **Socio-economic and community:** The site was assessed as **less suitable** for use as a CSO site due to the proximity of Frank Banfield Park. Construction related impacts may be felt by adjacent residences and businesses but these can be reduced through appropriate mitigation.

B.2.40 **Property:** The site was assessed as **suitable** for use as a CSO site. However, this may change to **less suitable** if a proposed development on the site commences.

**C04XM: Adjacent to Hammersmith Pumping Station off Distillery Road**

B.2.41 Site C04XJ is situated within a vacant former industrial site known as Hammersmith Embankment, within the London Borough of Hammersmith and Fulham.

B.2.42 The site is bounded to the north by Chancellors Road, and adjoins the eastern boundary of an existing Thames Water pumping station. The
surrounding area is predominantly residential with Frank Banfield Park to the east and the River Thames to the west.

B.2.43 **Engineering:** The site was considered **suitable** for use as a CSO site because it has good access and is adequate in size.

B.2.44 **Planning:** On balance, the site was assessed as being **suitable** for use as a site to intercept this CSO. The site is subject to several planning and environmental policy designations. Furthermore, a number of residential properties are also in proximity. However, with appropriate mitigation, any impacts could be reduced.

B.2.45 **Environment:** Overall, the site was assessed as **suitable** for use as a CSO site. The site was considered likely to be **suitable** from the perspectives of archaeology, water resources, ecology, flood risk, and land quality. However, the site was considered **less suitable** from the perspective of transport, built heritage, townscape, air quality and noise, although these impacts may be reduced by appropriate mitigation.

B.2.46 **Socio-economic and community:** The site was assessed as **less suitable** for use as a CSO site due to the proximity of Frank Banfield Park. Impacts may be experienced by adjacent residences and businesses but these impacts may be reduced through appropriate mitigation.

B.2.47 **Property:** The site was assessed as **suitable** for use as a CSO site. However, this may change to **less suitable** if a proposed development on the site commences.

**Identification of the preferred site**

B.2.48 Following the completion of the SSRs, a multidisciplinary workshop was held to compare the suitability of each of the shortlisted sites based on the SSR assessments and to make a recommendation on which site should be identified as the preferred site.

B.2.49 From the five shortlisted sites, land adjacent to Hammersmith Pumping Station off Chancellors Road (C04XJ) was identified as the preferred site for a number of reasons which are summarised below:

- C04XA is located adjacent to a number of elevated residential and business properties which front the river. This site is considered to be less suitable by engineering, planning, environment and community disciplines. In addition, the site also does not currently have suitable vehicle access from the public highway network. The use of site C04XG would cause significant impact on the local community and the loss of high amenity open space. Furthermore, both of these sites would, therefore, not accord with Hammersmith and Fulham Unitary Development Plan and emerging Core Strategy policy. For these reasons, both sites were considered not suitable.

- The vacant area of land surrounding the pumping station and extending south, on which the remaining three sites are located, was identified as suitable for a main tunnel site (site S33HF). The location of a shaft on sites C04XL or C04XM would cause the alignment of the
main tunnel to cross much of this site thereby sterilising a greater part for future development than a shaft on site C04XJ.

- C04XM has a number of live, large diameter sewers under the ground which makes planning a large shaft and interception chambers complex, and also requires part use of Distillery Road, which would need to be closed for an extended period. C04XL does not abut the existing Hammersmith Pumping Station site and would lead to greater fragmentation of the vacant land.

- Site C04XJ has sufficient space and allows the permanent structures to be located in close proximity to the existing pumping station. The site has good access and the size and location of the site would allow all works to be conducted off the carriageway reducing disruption.

- Site C04XJ is primarily opposite business premises, located further away from residential dwellings than the other sites, and would be an extension of the pumping station which would ease operational access and maintenance.

B.2.50 C04XJ was therefore identified as the preferred site for the interception of flows from the Hammersmith Pumping Station CSO. As noted above, the Hammersmith Pumping Station site had also been identified during the site selection process as being suitable for use as a main tunnel site for the construction of the main tunnel. The preferred tunnelling strategy which was developed for phase one consultation proposed use of the Hammersmith Pumping Station site to receive a tunnel boring machine (TBM) being used to ‘drive’ the main tunnel from a sites at Barn Elms Sports Centre playing fields.

B.2.51 The selection of site C04XJ for the interception of the local CSO would allow for the construction area required for the CSO interception to be incorporated with that required for the construction of the main tunnel site, thus reducing the number of sites required in total.

B.3 Review of site selection following phase one consultation

Phase one consultation responses

B.3.1 As part of the site selection methodology, all feedback received during the phase one consultation was reviewed and taken into account in the development of our phase two consultation.

B.3.2 The main issues and concerns raised during phase one consultation in relation to the combined Hammersmith Pumping Station site (encompassing both a main tunnel shaft site and interception of the local CSO) can be summarised as follows:

- Impact on the planned development and regeneration of the site
- Proximity to Frank Banfield Park and access to the Thames Path
- Disruption to residential areas and businesses
- Impact on traffic congestion and access to the site
- Use of the river
• Design and visual impact of permanent structures.

B.3.3 The main comments received in support of the preferred site included:
• good and logical choice for the function and the most obvious site
• best site with regard to noise and traffic issues
• the only viable option because it minimises disruption and inconvenience and uses derelict site which has been empty for many years.

B.3.4 More detail on the consultation responses relating to this site and our response to the comments received are provided within the Report on phase one consultation.

B.3.5 Having taken all comments received into account, we still believe that Hammersmith Pumping Station is the most appropriate site to connect the local CSO to the main tunnel. Compared to the other shortlisted sites, Hammersmith Pumping Station has more limited impact on the residential properties to the north side of Chancellors Road, reduces the potential impact on Frank Banfield Park and has good access.

B.3.6 However, due to the emergence of plans for the redevelopment of the currently vacant land on which we proposed to develop our worksite and additional engineering design work, we began a review of our tunnelling strategy for the construction of the western section of the main tunnel and a review of whether a main tunnel site is required at Hammersmith Pumping Station.

**Back-check process**

B.3.7 When the preferred site was selected it was acknowledged that the use of the vacant land adjacent to the Hammersmith Pumping Station for a main tunnel site was a potential high risk if the status of the site changed (ie, if proposals for redevelopment of the site were brought forward).

B.3.8 Additional engineering design work was carried out on the connection tunnel between the Hammersmith Pumping Station site and Acton Storm Tanks to look at matters such as the size of this tunnel and its hydraulic requirements and performance. This review found that the connection tunnel needed to be larger than initially proposed to meet the flow and storage requirements of the tunnel and identified the possibility of using the Hammersmith Pumping Station to only intercept the local CSO.

B.3.9 Developers subsequently included an area of the site in a residential planning application. The developers were amenable to working with us to accommodate a smaller CSO site to construct the CSO shaft within their development plans. This application, in principle, is likely to be in accordance with the expected reallocation of this site from office to residential use in the London Borough of Hammersmith and Fulham’s emerging Local Development Framework (LDF).

B.3.10 Due to the evolving engineering design, new planning policy context and revised residential planning application for the site, we began a ‘back-check’ (as detailed in the SSM) to review our selection of
Hammersmith Pumping Station (off Chancellors Road – C04XJ) as our preferred site to intercept the Hammersmith Pumping Station CSO.

B.3.11 This ‘back-check’ involved a targeted repeat of each relevant stage of our site selection process to reconsider which site would be most suitable for the interception of the Hammersmith Pumping Station CSO. The following outlines the results from each stage of the back-check process.

B.3.12 The original long list of sites for Hammersmith Pumping Station CSO contained eleven sites (see Table B.1). These sites were reviewed along with any new sites identified in the back-checking exercise (ie, a reassessment to establish if there is any change of circumstances or new information has emerged).

B.3.13 All sites on the original long list were put on the back-check long list for this CSO. In addition, the following new sites were added to the back-check long list:

- C04XN: Hammersmith Pumping Station off Distillery Road (new site incorporating sites C04XL and C04XM)
- C04XP: Thames Water Depot and Hammersmith Pumping Station, Chancellors Road (new site which incorporated site C04XH and part of C04XM).

B.3.14 Sites C04XH, C04XL and C04XM were subsequently withdrawn as these were replaced by the new sites detailed above.

B.3.15 It should be noted that consideration was also given to other alternative sites suggested by consultees, however, there were no other sites identified that were located within feasible distance to intercept this CSO.

B.3.16 The back-check long list sites were assessed against the engineering, planning, environment, community and property considerations set out in Table 2.2.

B.3.17 The table below summarises the outcome of the ‘back-check’ assessment of the back-check long list of sites. Sites which were assessed as being the least constrained when considered against Table 2.2 considerations passed to the next stage of assessment. This did not necessarily mean that these sites would ultimately be judged as suitable, but that no significant constraints were identified in relation to the high-level considerations addressed at Table 2.2. Sites that were judged to be more constrained were not recommended to be retained on the back-check draft short list for more detailed assessment. The main rationale for the exclusion of these sites at this stage is summarised in the table.

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<td><strong>Recommendation</strong>: To draft shortlist</td>
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<tr>
<td>--------</td>
<td>----------------------</td>
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</table>
| C04XB  | Paved area fronting River wall | **Recommendation:** Not to draft shortlist  
**Rationale:** The site is thin and there are likely to be restrictive working conditions. |
| C04XC  | Vacant lot adjacent to the River | **Recommendation:** Not to draft shortlist  
**Rationale:** The engineering connection to the sewer is long and difficult |
| C04XD  | Parking area between offices | **Recommendation:** Not to draft shortlist  
**Rationale:** The site is thin and there are likely to be restrictive working conditions. |
| C04XE  | Crisp Road | **Recommendation:** Not to draft shortlist  
**Rationale:** The site is too thin and too small. |
| C04XF  | Adjacent to Hammersmith Pumping Station, Chancellor’s Road | **Recommendation:** To draft shortlist to be considered with C04XJ |
| C04XG  | Frank Banfield Park | **Recommendation:** To draft shortlist |
| C04XJ  | Hammersmith Pumping Station (off Chancellor’s Road) | **Recommendation:** To draft shortlist to be considered with C04XF |
| C04XN  | Hammersmith Pumping Station (off Distillery Road) | **Recommendation:** To draft shortlist |
| C04XP  | Thames Water Depot and Pumping Station, Chancellor’s Road | **Recommendation:** To draft shortlist |

NB. The Site ID and Site name/description were used as an internal mechanism to record and describe the site but may be updated if necessary.

B.3.18 Full details are provided in back-check Table 2.2 assessment tables and accompanying plans.

B.3.19 Of the ten sites identified, six were assessed as potentially suitable and passed to the draft short list while four sites did not. C04XJ and C04XF were combined, making five potentially suitable sites in total.

**Assessment of the back-check draft short list sites**

B.3.20 The five back-check draft shortlisted sites were then further assessed by the engineering, planning, environment, community and property disciplines having regard to the considerations set out in Table 2.3 of the SSM.
B.3.21 The table below summarises the outcome of the ‘back-check’ assessment of the draft short list of sites. Sites which were assessed as being the least constrained when considered against Table 2.3 considerations were retained on the back-check short list to pass to the next stage of assessment. This did not necessarily mean that a site would ultimately be judged as suitable, but that no significant constraints were identified in relation to the considerations addressed at Table 2.3. Sites that were judged to be more constrained were not recommended to be retained on the short list for more detailed assessment.

B.3.22 The main rationale for the exclusion of these sites at this stage is summarised below.

Table B.4 Draft short list to final short list for the interception of the Hammersmith Pumping Station CSO (Table 2.3 assessment)

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<td>C04XG</td>
<td>Frank Banfield Park</td>
<td><strong>Recommendation:</strong> Retain on short list</td>
</tr>
<tr>
<td>C04XJ / C04XF</td>
<td>Hammersmith Pumping Station (off Chancellors Road)</td>
<td><strong>Recommendation:</strong> Retain on short list</td>
</tr>
<tr>
<td>C04XN</td>
<td>Hammersmith Pumping Station (off Distillery Road)</td>
<td><strong>Recommendation:</strong> Retain on short list</td>
</tr>
<tr>
<td>C04XP</td>
<td>TW Depot and Pumping Station, Chancellors Road</td>
<td><strong>Recommendation:</strong> Retain on short list</td>
</tr>
</tbody>
</table>

NB. The Site ID and Site name/description were used as an internal mechanism to record and describe the site but may be updated if necessary.

B.3.23 Full details are provided in back-check Table 2.3 assessment tables and accompanying plans.

B.3.24 Of the five sites on the back-check draft short list, all were assessed as potentially suitable and passed to the final short list.

**Assessment of the back-check final short list sites**

B.3.25 The five back-check final shortlisted sites identified for assessment at the next stage were:

- C04XA: Foreshore, adjacent to Chancellors Wharf
- C04XG: Frank Banfield Park
• C04XJ/C04XF: Adjacent to Hammersmith Pumping Station (off Chancellors Road)
• C04XN: Hammersmith Pumping Station (off Distillery Road)
• C04XP: TW Depot and Pumping Station, Chancellors Road.

B.3.26 A site suitability report (SSR) was prepared for the new back-check final short list site and the SSRs for the phase one shortlisted sites were re-evaluated.

**C04XA: Foreshore, adjacent to Chancellors Wharf**

B.3.27 All discipline recommendations remain unchanged.

**C04XG: Frank Banfield Park**

B.3.28 There are likely to be high acquisition costs if replacement land is required. Therefore, the property recommendation becomes less suitable.

B.3.29 All other discipline recommendations remain unchanged.

**C04XJ/C04XF: Adjacent to Hammersmith Pumping Station (off Chancellors Road)**

B.3.30 Because these two sites are adjoining, we reviewed the conclusions from the original C04XJ SSR and consider these would be valid for the combined site.

B.3.31 If development commences, the site may no longer be available, which represents a risk to the project. Furthermore, if Thames Tunnel project works prejudice development, acquisition costs are likely to increase significantly. Therefore, the property recommendation becomes less suitable.

B.3.32 All other discipline recommendations remain unchanged.

**C04XN: Hammersmith Pumping Station (off Distillery Road)**

B.3.33 The site C04XN is enclosed within a vacant former industrial site known as Hammersmith Embankment, located in the London Borough of Hammersmith and Fulham.

B.3.34 The surrounding area is predominantly residential with Frank Banfield Park to the east and the River Thames to the west. The site is bounded to the north by Chancellors Road and is immediately adjacent to the eastern boundary of an existing Thames Water Pumping Station.

B.3.35 **Engineering:** The site was assessed as suitable for use as a CSO site because it would be of adequate size, currently poses no technical or health and safety issues unique to this site. The site would have reasonable separation from third party assets and would have reasonable access by road during construction.

B.3.36 **Planning:** On balance, the site was considered suitable for use as a site to intercept this CSO. The site is within several planning and environmental policy designated areas. However, with appropriate mitigation, potential conflict with these policies should be kept to a
minimum. There will be impacts on residential amenity but these are likely to be able to be reduced by appropriate mitigation. Further negotiations with the land owner will be required in order to agree the use of the site for the temporary and permanent Thames Tunnel project works and phasing of the redevelopment proposals.

B.3.37 **Environment:** Overall, the site was assessed as suitable for use as a CSO site. The site was considered likely to be suitable from the perspective of transport, archaeology, built heritage, townscape, water resources (hydrogeology and surface water), ecology and flood risk. However, the site was considered less suitable from the perspective of air quality, noise and land quality although these impacts may be reduced by appropriate mitigation.

B.3.38 **Socio-economic and community:** The site was assessed as less suitable for use as a CSO site due to the proximity of Frank Banfield Park, a valuable area of community open space. The area has been identified as reasonably quiet and therefore, there may be construction noise impacts on the park and also on residential properties opposite the site.

B.3.39 **Property:** The site was assessed as less suitable for use as a CSO site. The site is in private ownership and therefore there should be no procedural difficulty in acquiring the land in its current state. Furthermore, the acquisition cost is likely to be high but acceptable. However, if development commences, the site may no longer be available, which represents a risk to the project. Furthermore, if Thames Tunnel project works prejudice development, acquisition costs are likely to increase significantly.

**C04XP: TW Depot and Pumping Station, Chancellors Road**

B.3.40 Site C04XP is made up of the existing Thames Water depot and Hammersmith Pumping Station sites, both within the London Borough of Hammersmith and Fulham.

B.3.41 The depot site is fully enclosed by residential properties on all sides. The existing Hammersmith Pumping Station site is bound by Chancellors Road to the north and by a vacant former industrial site known as Hammersmith Embankment to the east, west and south.

B.3.42 The assessment considered two site layouts options:

- Option 1 – CSO layout with the drop shaft within the Thames Water depot
- Option 2 – CSO layout with the drop shaft in Chancellors Road and adjoining pumping station land.

B.3.43 **Engineering:** Option 1 was assessed as less suitable for use as a CSO site. The construction works would be in close proximity to existing critical main sewers to the shaft works and existing residential and light industrial buildings.

B.3.44 Option 2 was also assessed as less suitable for use as a CSO site. This is due to the very close proximity of existing critical utilities and would require closure of Chancellors Road to enable access to the shaft.
Planning: On balance, both options were assessed as being not suitable for use as a site to intercept this CSO. The construction works are likely to directly impact on a large number of existing residents and there is unlikely to be acceptable mitigation measures to protect the amenity of these residences.

Environment: Overall, Option 1 was assessed as suitable for use as a CSO site. The site was considered likely to be suitable from the perspectives of transport, archaeology, water resources (hydrogeology and surface water), flood risk and ecology. However, the site was considered less suitable from the perspective of built heritage, townscape, air quality, noise and land quality, although these impacts may be reduced by appropriate mitigation.

Overall, Option 2 was assessed as less suitable for use as a CSO site. The site was considered likely to be suitable from the perspectives of archaeology, water resources (surface water and hydrogeology), flood risk and ecology. However, the site was considered less suitable from the perspectives of transport, built heritage, townscape, air quality, noise and land quality.

Socio-economic and community: Both options were assessed as not suitable for use as a CSO site. Construction works are likely to directly impact on a number of residential properties and given their close proximity to the site, effective mitigation may be difficult to achieve. Furthermore, site layout option one is in close proximity to two playgrounds and site layout option two requires a large amount of construction work on the public highway.

Property: Option 1 is considered suitable for use as a CSO site. The site is contained primarily within Thames Water owned land. Therefore, acquisition costs will be low. Furthermore, there is lower potential for Section 10 compensation claims, provided access is maintained to all properties. However, there is a higher potential for discretionary purchase costs as the shaft is located close to and surrounded by residential properties.

Option 2 is considered suitable for use as a CSO site. The site is contained primarily within Thames Water owned land. Therefore, acquisition costs will be low. Furthermore, discretionary purchase costs are likely to be lower due to the shaft being located further from high-density residential property. However, the increased disruption to Chancellors Road increases the possibility of Section 10 compensation claims. There are also slightly increased procedural difficulties associated with acquiring rights to work in the road compared to Option 1.

Preferred site recommendation

Following the completion of the back-check process, a multidisciplinary workshop was held to compare the originally preferred site (Hammersmith Pumping Station off Chancellors Road – C04XJ) and shortlisted sites with the new sites identified via the back-check.
B.4.2 This workshop took into account the findings of all the SSRs, new information and the feedback received during the phase one consultation. On the basis of the assessments described above and professional judgement, it was agreed by all disciplines that Hammersmith Pumping Station (off Distillery Road – C04XN) should become the recommended phase two consultation preferred site for the interception of the Hammersmith Pumping Station CSO. This meant that we believed this to be the most appropriate site, subject to further engagement with stakeholders and further design development to verify this conclusion prior to phase two consultation. For the purposes of phase two consultation, this site will be referred to as Hammersmith Pumping Station.

B.4.3 In summary, Hammersmith Pumping Station (off Distillery Road – C04XN) was identified as the most suitable site because:

- the site is within the footprint of our phase one consultation construction layout plan, but the site is much smaller as it is only needed to intercept the CSO. Due to the advanced stages of the redevelopment proposal for this site for a major residential development, it was concluded that the larger site required for a main tunnel reception site would not be available and would therefore pose a significant risk to the project if it were selected as a main tunnel site
- technically a suitable location to intercept this CSO
- location of the CSO fits in with the developer’s proposed redevelopment of the site and work programmes can be coordinated
- less impact on existing residential dwellings than the other shortlisted sites, especially C04XP
- good road access
- site can be directly connected with the pumping station and works can be co-ordinated between the two sites
- use of this site will require a short connection tunnel to connect the intercepted CSO to the main tunnel.

B.5 Site development

B.5.1 Following the selection of Hammersmith Pumping Station as our preferred site, further feedback from stakeholders and ongoing scheme development work have contributed to a number of refinements to the site.

Engagement with stakeholders

B.5.2 Engagement with stakeholders has been ongoing and has continued beyond the phase one consultation period. This has resulted in continual development of our proposals to take on board the comments made by stakeholders.

B.5.3 In particular, we have continually engaged through regular meetings and workshops with officers from the London Borough of Hammersmith and Fulham, TfL, the Environment Agency and English Heritage with respect
to developing the design and construction of our works and the scope of our environmental assessments. To ensure our design process is transparent, we undertook a series of design reviews, hosted and chaired by the Design Council CABE (formerly the Commission for Architecture and the Built Environment). The review for Hammersmith Pumping Station was attended by the London Borough of Hammersmith and Fulham and our pan-London stakeholders.

B.5.4 Furthermore, we have also had regular meetings with the landowner of the adjacent development site in order to mitigate the project’s impact on their interests.

Construction layout

B.5.5 In response to stakeholder engagement, phase one consultation responses and scheme development, the construction layout of the site has been altered to minimise impact on the local community and environment and is guided by operational and functional requirements. Particular factors at this site that have influenced the layout are as follows:

- We have arranged the site offices so that they would be positioned along the northern boundary of the site to act as a screen from the construction activities for the residents on Chancellor’s Road.
- Effects of construction works on adjacent land uses have been minimised by siting as much of the works as possible within the existing Hammersmith Pumping Station site.
- Access to the site has been located so that it could be shared with the neighbouring developer.

B.5.6 Further information on the construction logistics and the site layouts for the construction and operational phases can be found in the Hammersmith Pumping Station site information paper.

Design

B.5.7 Since phase one consultation, we have progressed the design for the permanent use and appearance of the structures at Hammersmith Pumping Station. The design of the permanent proposals follows our scheme wide principles and has taken into account comments made and ongoing engagement with the London Borough of Hammersmith and Fulham and other technical consultees.

B.5.8 Full details of design development for the Hammersmith Pumping Station site are provided in the Design development report.
B.6 Confirmation of the preferred site for phase two consultation

B.6.1 A final preferred sites workshop was held in summer 2011 to verify the choice of preferred sites and to consider any outcomes of further engagement and scheme development. The conclusion reached was that Hammersmith Pumping Station should become the phase two consultation preferred site for the interception of the Hammersmith Pumping Station CSO.

B.6.2 Phase two consultation will provide an opportunity for the public to comment on our revised preferred site and scheme for the Thames Tunnel project, before we publicise our proposed application.
This is a working draft plan which has been produced for the purpose of phase two consultation on the Thames Tunnel project. The information shown on the plan is illustrative of what will be required for the purpose of constructing and operating the Thames Tunnel project. The information shown on the plan may change as a result of Thames Water’s consideration of the responses received to phase two consultation and any further design development that is carried out.

Note
Sites C04XH, C04XL, and C04XM have been retired.