Appendix C – Barn Elms

C.1 Introduction

C.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 site.

Type of site

C.1.2 We need a worksite to connect the local combined sewer overflow (CSO), known as the West Putney 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 sewer.

Site selection process

C.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.

C.1.4 A plan showing all the sites considered for the interception of the West Putney CSO and how they progressed during the site selection process can be found in Annex C.1.

Preferred site for phase one and phase two consultation

C.1.5 The table below identifies our preferred phase one and phase two consultation sites. Section C.2 in this appendix provides the details of how we identified our preferred phase one site for a CSO only interception. Sections C.3 to C.5 provide details of why we changed the use of our preferred site for phase two consultation.

| Phase one consultation site:       |
|                                   |
| Barn Elms – combined main tunnel and CSO site |

| Phase two consultation site:       |
|                                   |
| Barn Elms – CSO site only         |
| (Preferred main tunnel site changed to Carnwath Road Riverside – see Appendix G ) |

C.2 Site selection up to phase one consultation

Assessment of the long list sites

C.2.1 The long list of potential sites to intercept the West Putney CSO was created by conducting a desktop survey of the land in the vicinity of the existing sewer.

C.2.2 In total, 16 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 engineering (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.

C.2.3 Table C.1 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 draft short list for more detailed assessment. The main rationale for the exclusion of these sites at this stage is summarised in the table below.

<table>
<thead>
<tr>
<th>Site ID</th>
<th>Site name/ description</th>
<th>Recommendation and rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>C05XA</td>
<td>Foreshore</td>
<td><strong>Recommendation:</strong> To draft shortlist</td>
</tr>
<tr>
<td>C05XB</td>
<td>Woodland area between Embankment and Barn Elms.</td>
<td><strong>Recommendation:</strong> To draft shortlist</td>
</tr>
</tbody>
</table>
| C05XC   | Outfall                | **Recommendation:** Not to draft shortlist  
**Rationale:** The site is too small with poor access and is not viable for connection to the sewer. |
| C05XD   | Small business for boat repairs | **Recommendation:** To draft shortlist |
| C05XE   | Park                   | **Recommendation:** To draft shortlist |
| C05XF   | Car parking area behind block of flats in Horne Way | **Recommendation:** Not to draft shortlist  
**Rationale:** The site is small and too narrow. |
| C05XG   | Area fronting block of flats in Horne Way | **Recommendation:** To draft shortlist |
### Site ID | Site name/ description | Recommendation and rationale
--- | --- | ---
C05XH | Area fronting blocks of flats in Horne Way | **Recommendation:** To draft shortlist
C05XJ | Area fronting blocks of flats in Barn Elms Park | **Recommendation:** Not to draft shortlist  
**Rationale:** The site is too narrow and the engineering connection to the sewer would be long and difficult.
C05XK | Area fronting blocks of flats in Horne Way | **Recommendation:** To draft shortlist
C05XL | Area fronting flats between Floss Street and Horne Way | **Recommendation:** Not to draft shortlist  
**Rationale:** The site is too narrow.
C05XM | Area fronting blocks of flats in Horne Way | **Recommendation:** To draft shortlist
C05XN | Area fronting block of flats in Commondale | **Recommendation:** To draft shortlist
C05XP | Area fronting block of flats in Commondale | **Recommendation:** To draft shortlist
C05XQ | Barn Elms (corner of recreation area) | **Recommendation:** To draft shortlist
CO5XR | Area fronting block of flats in Commondale | **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.

**C.2.4** Full details are provided in the Table 2.2 assessment tables and accompanying plans.

**C.2.5** Of the 16 sites identified, 12 were assessed as potentially suitable and passed to the draft short list while four sites were eliminated as being unsuitable.

**Assessment of draft short list sites**

**C.2.6** The 12 draft short list sites identified for further assessment at the next stage were:

- **C05XA:** Foreshore
- **C05XB:** Woodland Area between Embankment and Barn Elms
- C05XD: Small business for boat repairs
- C05XE: Park
- C05XG: Area fronting block of flats in Horne Way
- C05XH: Area fronting blocks of flats in Horne Way
- C05XK: Area fronting blocks of flats in Horne Way
- C05XM: Area fronting blocks of flats in Horne Way
- C05XN: Area fronting block of flats in Commondale
- C05XP: Area fronting block of flats in Commondale
- C05XQ: Barn Elms (corner of recreation area)
- C05XR: Area fronting block of flats in Commondale.

C.2.7 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.

C.2.8 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.

C.2.9 Table C.2 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. The main rationale for the exclusion of these sites at this stage is summarised below.

<table>
<thead>
<tr>
<th>Site ID</th>
<th>Site name/description</th>
<th>Recommendation and rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>C05XA</td>
<td>Foreshore</td>
<td><strong>Recommendation:</strong> Retain on short list</td>
</tr>
<tr>
<td>Site ID</td>
<td>Site name/ description</td>
<td>Recommendation and rationale</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------</td>
<td>------------------------------</td>
</tr>
</tbody>
</table>
| C05XB   | Woodland Area between Embankment and Barn Elms. | **Recommendation:** Not to shortlist  
**Rationale:**  
- Engineering – There are various access issues to the site during and post construction.  
- Community – There may be impacts on a number of sensitive receptors around the site. |
| C05XD   | Small business for boat repairs | **Recommendation:** Retain on short list |
| C05XE   | Park | **Recommendation:** Retain on short list |
| C05XG   | Area fronting block of flats in Horne Way | **Recommendation:** Not to shortlist  
**Rationale:**  
- Engineering – The site is restricted by its shape and is also a long distance to river (180m) therefore long connection tunnel required. |
| C05XH   | Area fronting blocks of flats in Horne Way | **Recommendation:** Not to shortlist  
**Rationale:**  
- Engineering – The site is a long distance from the river (200m) therefore long connection tunnel required.  
- Community – The site is situated adjacent to residential flats. |
| C05XK   | Area fronting blocks of flats in Horne Way | **Recommendation:** Not to shortlist  
**Rationale:**  
- Engineering – The site is a long distance from the river (270m) therefore long connection tunnel required.  
- Community – Use of the site would result in the temporary loss of playground on the site and there would be a cumulative impact on a number of sensitive receptors. |
<table>
<thead>
<tr>
<th>Site ID</th>
<th>Site name/ description</th>
<th>Recommendation and rationale</th>
</tr>
</thead>
</table>
| C05XM  | Area fronting blocks of flats in Horne Way | **Recommendation:** Not to shortlist  
  **Rationale:**  
  • Engineering – The site is a long distance to river (300m) therefore long connection tunnel required.  
  • Community – There will be impact on local amenity and users of this open space. |
| C05XN  | Area fronting block of flats in Commondale | **Recommendation:** Not to shortlist  
  **Rationale:**  
  • Engineering – The site has poor access.  
  • Planning/Environment – There would be a cumulative impact on designations, especially on Metropolitan Open Land and public open space and amenity of adjacent block of flats.  
  • Community – There would be an impact on high density residential and community facilities located around the site. |
| C05XP  | Area fronting block of flats in Commondale | **Recommendation:** Not to shortlist  
  **Rationale:**  
  • Engineering – The site has poor access.  
  • Planning/Environment – There would be a cumulative impact on a number of designations, especially on Metropolitan Open Land and public open space and amenity of adjacent block of flats.  
  • Community – There would be a cumulative impact on a large combination of sensitive receptors. |
| C05XQ  | Barn Elms (corner of recreation area) | **Recommendation:** Retain on short list |
Site ID | Site name/ description | Recommendation and rationale
---|---|---
CO5XR | Area fronting block of flats in Commondale | **Recommendation:** Not to shortlist  
**Rationale:**  
- Engineering – The site is located a long distance from the river (450m) therefore long connection tunnel required.  
- Planning/Environment – There is likely to be a cumulative impact on designations, especially Metropolitan Open Land, and open space and amenity of residential properties, a hospital, a public house and a common.  
- Community – There would be a cumulative impact on a large combination of sensitive receptors.  

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.

C.2.10 Full details are provided in the Table 2.3 assessment tables and accompanying plans.

C.2.11 Of the 12 sites on the draft short list, four were assessed as potentially suitable and passed to the final short list, while eight sites did not proceed to the final short list.

**Assessment of the final short list sites**

C.2.12 The four sites identified for inclusion on the final short list and assessment at the next stage were:
- C05XA: Foreshore
- C05XD: Small business for boat repairs
- C05XE: Park
- C05XQ: Barn Elms (corner of recreation area).

C.2.13 A site suitability report (SSR) was 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.

C.2.14 A summary of the conclusions of each discipline’s assessment from the site suitability reports is provided below.
C05XA: Foreshore, adjacent to Barn Elms

C.2.15 Site C05XA is located within the River Thames foreshore in the London Borough of Richmond upon Thames, close to its boundary with the London Borough of Wandsworth.

C.2.16 The surrounding area is predominantly characterised by large expanses of protected public open space, river-based sports and leisure facilities and, set at a distance, residential properties. The site is bounded by the Thames Path and Barn Elms School Sports Centre playing fields to the west. Community facilities are in close proximity.

C.2.17 **Engineering:** This site was assessed as **suitable** as a CSO site because, as it is a foreshore site, it would be reasonably unrestricted in shape and size and would be in close proximity to the main tunnel. Access to the site is, however, likely to be difficult and would require significant enabling works.

C.2.18 **Planning:** On balance, the site was assessed as **suitable** as a CSO site as although the site is subject to a number of direct and adjacent policy designations, the designated sites should not be unacceptably impacted upon.

C.2.19 **Environment:** Overall, the site was assessed as **suitable** for use as a CSO site. The site was considered **suitable** from the perspectives of archaeology, built heritage, hydrogeology, air quality, noise, and land quality. This site was considered **less suitable** from the perspectives of transport, townscape, surface water resources, ecology, and flood risk. Various mitigation measures would be required.

C.2.20 **Socio-economic and community:** The site was considered **suitable** for use as a CSO site provided appropriate mitigation is provided. There is likely to be disruption experienced by users of the Thames Path and also on the sea cadet premises and the scout hut. However, mitigation will reduce these impacts to acceptable levels.

C.2.21 **Property:** The site was assessed as **suitable** from a property perspective as the acquisition costs are likely to be acceptable.

C05XD: Boat Repair, off Putney Embankment

C.2.22 Site C05XA is used for boat repairs and by the Wandsworth, Chelsea and Fulham Sea Cadet Unit. It is located in the London Borough of Wandsworth, close to its boundary with the London Borough of Richmond upon Thames.

C.2.23 The surrounding area is predominantly characterised by large expanses of protected public open space, river-based sports and leisure facilities and, set at a distance, residential properties. The site is bounded by the Thames Path and River Thames and to the north and west by Beverley Brook. Along the southern site boundary is Leaders Gardens, an area of protected open space.

C.2.24 **Engineering:** This site was assessed as **suitable** as a CSO site because it is of adequate size and would have some level of vehicular access. It would also be in close proximity to the river and the assumed alignment of
the main tunnel. However, the interception chamber and connection culvert would be outside the site boundary and the connecting culvert would need to cross Beverley Brook.

C.2.25 **Planning:** On balance, the site was considered *suitable* as a CSO site as although the site is subject to a number of direct and adjacent policy designations, the designated sites should not be unacceptably impacted upon. However, temporary provision of the Sea Cadets premises and river-based recreation facilitations currently operating on the site would need to be considered. Impacts on the conservation area would also require consideration.

C.2.26 **Environment:** Overall, the site was assessed as *less suitable* for use as a CSO site. The site was considered *suitable* from the perspectives of hydrogeology, ecology, air quality, noise and townscape. This site was considered *less suitable* from the perspectives of archaeology, built heritage, transport, surface water resources, land quality and flood risk.

C.2.27 **Socio-economic and community:** The site was considered *less suitable* for use as a CSO site. There is likely to be disruption experienced by users of the Thames Path and also on the Sea Cadet premises and boat repair yard business. There will also be noise disturbance to the adjacent Leaders Gardens, the residential properties and the Barn Elms Schools sports centre opposite the site.

C.2.28 **Property:** The site was assessed as *suitable* from a property perspective as the acquisition costs are likely to be acceptable, although compensation claims for disturbance may arise.

**C05XE: Leaders Gardens, Putney Embankment**

C.2.29 Site C05XE is a public open space known as Leaders Gardens, situated in the London Borough of Wandsworth, close to its boundary with the London Borough of Richmond upon Thames. The surrounding area is predominantly characterised by large expanses of protected public open space, river-based sports and leisure facilities and residential properties.

C.2.30 The site is bounded by the Thames Path and River Thames to the east while the site is within close proximity to the existing sea cadet facility to the north and bounded by Beverley Brook to the northwest. To the south, the site is bounded by Festing Road and residential properties on Stockhurst Close and Ashlone Road.

C.2.31 **Engineering:** This site was assessed as *suitable* as a CSO site because it would be of adequate size and would have reasonable (though potentially very long) vehicular access. However, the interception chamber and connection culvert would be outside the site boundary and the connecting culvert would need to cross Beverley Brook.

C.2.32 **Planning:** On balance, the site was considered *less suitable* as a CSO site as it is covered by a number of planning and environmental designations. Of these, open space and the potential impacts on the conservation area are of most significance. There would also be impacts residential and community facilities.
C.2.33  **Environment:** Overall, the site was assessed as **less suitable** for use as a CSO site. The site was considered **suitable** from the perspective of hydrogeology. This site was considered **less suitable** from the perspectives of transport, archaeology, built heritage, townscape, surface water resources, ecology, air quality, noise, land quality and flood risk.

C.2.34  **Socio-economic and community:** The site was considered **less suitable** for use as a CSO site. Use of the site would cause the temporary loss of a section of the gardens and would be likely to affect local residents and other open space users. The Sea Cadet premises adjacent to the site may be affected by the use of the site, as may the local residents and the Barn Elms sports centre grounds opposite the site.

C.2.35  **Property:** The site was assessed as **suitable** from a property perspective as the acquisition costs are likely to be acceptable.

**C05XQ: Barn Elms (corner of recreation area)**

C.2.36 Site C05XQ is situated within the Barn Elms Schools Sports Centre playing fields located in the London Borough of Richmond upon Thames, close to its boundary with the London Borough of Wandsworth. The surrounding area is predominantly characterised by large expanses of protected public open space, river-based sports and leisure facilities residential properties located approximately 55m to the south.

C.2.37 The site is bounded to the north and west by the wider Barn Elms Sports Centre playing fields, and beyond that by the London Wetland Centre. Beverley Brook borders the south and east of the site. Further to the south, beyond Beverley Brook, are residential properties.

C.2.38  **Engineering:** This site was assessed as **suitable** as a CSO site because it would be large and level, with the drop shaft close to the storm relief sewer to be intercepted.

C.2.39  **Planning:** On balance, the site was considered **suitable** as a CSO site. The site is covered by a number of planning and environmentaldesignations but there is unlikely to be an unacceptable impact upon these designations. These include a recreational area and Metropolitan Open Land. However, given the extensive nature of the recreational grounds this is not considered to be significant.

C.2.40  **Environment:** Overall, the site was assessed as **suitable** for use as a CSO site. The site was considered **suitable** from the perspectives of transport, hydrogeology, air quality, noise, built heritage, townscape and land quality. This site was considered **less suitable** from the perspectives of archaeology, surface water, ecology and flood risk. Various mitigation measures would be required.

C.2.41  **Socio-economic and community:** The site was considered **less suitable** for use as a CSO site. Use of the site would result in the temporary loss of open space which would affect local residents and other people using the sports ground. Furthermore, impacts may be experienced by residential development, the Sea Cadet centre and Leaders Gardens to the south.
C.2.42 **Property:** The site was assessed as **suitable** from a property perspective as the acquisition costs are likely to be acceptable.

**Identification of the preferred site**

C.2.43 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.

C.2.44 From the four shortlisted sites, **Barn Elms (corner of recreational area – C05XQ)** was identified as the preferred site for a number of reasons, which are summarised below:

- Site C05XA would require mitigation to overcome transport, townscape, flood risk and surface water, ecology and Thames Path issues. Further environmental concerns include potential archaeological, ecology and land quality concerns, in addition to impacts on amenity. In engineering terms, the site would also require considerable enabling works to create a temporary worksite and be in close proximity to a high pressure gas main. On balance, this site is considered more constrained than C05XQ.

- Site C05XD would necessitate the relocation of the boat repair business and demolition of the Sea Cadet building. This would require the identification and provision of an alternative facility to maintain river-based recreational facilities currently operating from the site. Planning and environmental concerns would also lead to conflict with relevant planning policies.

- Likewise, use of site C05XE would also potentially lead to conflict with Wandsworth’s planning policies as it would result in the loss of a park and garden area and was judged to have a greater detrimental impact on the local community, residents and other users. As a result, both sites C05XD and C05XE were considered less suitable than C05XQ.

- Site C05XQ is currently used as a sports field (Barn Elms Schools Sports Centre) and is a good-sized, flat site that would allow safe, efficient working and would require fewer enabling works compared with the other site options. Use of the site would offer a separation distance from Leaders Gardens and adjacent residential properties. In conjunction with appropriate mitigation measures, this would reduce potential impacts of construction noise and dust on the surrounding community.

- Established trees along Beverley Brook would also provide screening of views from the gardens and adjacent properties to reduce the impact on the visual amenity of the area. The temporary loss of public open space, relative to the overall size of the Barn Elms Sports Fields, would be less and have a reduced impact when compared with works at site C05XE.

- Site C05XQ would allow for good vehicular access directly to the strategic road network via a dedicated temporary construction access road. This could either follow the route of the existing access road to
the boathouse around the perimeter of the sports fields, or follow a new route adjacent to Beverley Brook, directly to Rocks Lane. The Rocks Lane access would avoid the safety risks and general disturbance associated with routing construction traffic in front of changing facilities and through either narrow residential streets or the Putney Embankment, if sites C05XD or C05XE were promoted.

- Site C05XQ would allow all works for the drop shaft and interception chamber construction to be carried out within the sports field site. This is preferred to the other sites, which would require interception works external to the CSO drop shaft site area. Sites C05XA and C05XD would require interception works in close proximity to the Beverley Brook flood barrier, and sites C05XE and C05XD would also require the construction of interception pipework across the Beverley Brook watercourse.

C.2.45 In summary, it was concluded that site C05XQ could be developed in accordance with planning policy. While it requires the use of open space within an area designated as Metropolitan Open Land, this would be temporary and would leave a large area of the open space unaffected and available for use by the public. Therefore, the proposed use would be in accordance with the spirit of policies within the Richmond Unitary Development Plan and Core Strategy.

C.2.46 The Barn Elms Schools Sports Centre playing field area was also identified during the site selection process as being suitable for use as a shaft site for the construction of the main tunnel. The preferred tunnelling strategy which was developed for phase one consultation proposed using a shaft on the Barn Elms site to lower a tunnel boring machine (TBM) into the ground to ‘drive’ the main tunnel to sites at Hammersmith Pumping Station to the west, and Tideway Walk to the east.

C.2.47 The selection of site C05XQ 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 shaft, thus reducing the number of sites required.

C.3 Review of site selection following phase one consultation

Phase one consultation responses

C.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 scheme for phase two consultation.

C.3.2 The main issues and concerns raised during phase one consultation in relation to the combined Barn Elms site (encompassing both a main tunnel drive site and interception of the local CSO) can be summarised as follows:

- Further justification needs to be provided about why this site was selected, including why brownfield alternatives and solutions where the drive site and CSO site were split have not been explored
Appendix C – Barn Elms

- Disruption to water-based recreation, including the Oxford versus Cambridge Boat Race and other major river events
- Impact of loss of green space, playing pitches and Metropolitan Open Land
- Impact on community fundraising for upgrading of the site
- Access should not be disrupted along footpaths, including the Thames Path
- Impact of increased congestion caused by HGVs and concern about proposed access routes
- Impact on the environment, the area’s tranquillity, biodiversity and wildlife.

C.3.3 The main comments received in support of the combined preferred site included:
- the best choice for the location of a site, in comparison to alternatives consulted on which would cause more disruption to the local community
- site is advantageous because two activities can be combined on one site
- although sports fields would be affected, many would remain
- location of site by river allows excavated materials to be transported by barges
- obvious choice, given large amount of land
- least impact on the historic environment as it combines both requirements in a single location.

C.3.4 More detail on the consultation responses relating to the combined Barn Elms site and our response to the comments received are provided in the Report on phase one consultation.

C.3.5 Having taken all the comments received during phase one consultation into account, we still believe that Barn Elms is the most appropriate site for the interception of the West Putney CSO and its connection to the main tunnel. We are however looking at alternative sites for the main tunnel site.

Back-check process

C.3.6 As a result of the feedback we received during phase one consultation and a review of the size of sites required for main tunnel shafts, we began a ‘back-check’ (as outlined in the Site selection methodology paper) to review our selection of S17RD: Barn Elms as a preferred main tunnel drive site.

C.3.7 The consequence of this back-check assessment was that the preferred main tunnel drive site was changed from S17RD: Barn Elms to S87HF: Carnwath Road Riverside (see Appendix G – Carnwath Road Riverside for full details of the process used and our rationale for identifying
Appendix C – Barn Elms

Carnwath Road Riverside as our phase two preferred main tunnel drive site).

C.3.8 However, due to the requirement for the worksite to intercept the West Putney CSO to be located within reasonable proximity to the sewer, the previously identified site at Barn Elms (C05XQ) remains our preferred site to intercept the CSO as this still provides the best option as outlined in our assessment above.

C.4 Site development

C.4.1 Following the selection of Barn Elms 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

C.4.2 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.

C.4.3 We have also continued to engage with local community and interest groups through regular meetings and workshops. This has provided us with the opportunity to consider stakeholder views during ongoing scheme development.

C.4.4 In particular, we have continually engaged through regular meetings and workshops with officers from the London Borough of Richmond, 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 reviews for Barn Elms were attended by our pan-London stakeholders.

Construction layout

C.4.5 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:

- Owing to the change in function of the site since phase one consultation from a main drive to a CSO interception site, the location of the construction site is now in the south of the previous Barn Elms site, adjacent to the Beverley Brook watercourse. This means that the site is smaller and the potential effect on the sports pitches has been confined to a temporary loss during construction.

- Access to and construction on the foreshore of the River Thames are no longer required, eliminating the potential effect on river navigation
and river users, and avoiding the need to relocate the scout hut or divert the Thames Path.

- At phase one consultation, two different options for site access were proposed; a third option was considered following feedback from phase one consultation. Where possible, we have discussed these options with relevant stakeholders, and the option to construct a temporary access road from Rocks Lane (A306) along the northern side of the Beverley Brook watercourse is preferred. This option reduces the effect on common land, avoids Queen Elizabeth Walk, is considered safer as there would be no interaction with users or pitches and does not interfere significantly with public access routes.

C.4.6 Further information on the construction logistics and the site layouts for the construction and operational phases can be found in the Barn Elms site information paper.

**Design**

C.4.7 Since phase one consultation, we have progressed the design for the permanent use and appearance of the structures at Barn Elms. The design of the permanent proposals follows our scheme wide principles. This has taken into account comments made and ongoing engagement with the London Borough of Richmond and other technical consultees.

C.4.8 Full details of design development for the Barn Elms site are provided in the Design development report.

**C.5 Phase two consultation**

C.5.1 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 Barn Elms (corner of recreation area – C05XQ) should remain the preferred site for the interception of the West Putney CSO during phase two consultation.

C.5.2 Phase two consultation will provide an opportunity for the public to comment on the further design development and additional information available on our preferred site and revised scheme for the Thames Tunnel project, before we publicise our proposed application.
Annex C.1
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.