After phase one consultation, we analysed all the feedback that we received during the consultation period and interim engagement events. We considered this information alongside the developments in engineering design and any new information.

This information paper explains how our proposed scheme has changed compared to that presented at phase one consultation and why. This is a high-level overview of the changes, for more detailed information please see our *Site information papers* and *Phase two scheme development report*.

**Main tunnel sites and tunnelling strategy**

We require sites to build the main tunnel at:

- each end of the main tunnel in west and east London
- suitable intervals along the route of the main tunnel
- in locations where the type of geology that the main tunnel goes through changes.

The two figures overleaf show our preferred sites related to our tunnelling strategy for phase one consultation and phase two consultation.
Changes

Phase one consultation preferred tunnelling strategy

Phase two consultation preferred tunnelling strategy
Main tunnel sites

At phase one consultation the construction of our preferred main tunnel started in the west at Barn Elms (drives A and B). The central section was to be built from Tideway Walk (drive C) and the eastern section from Abbey Mills Pumping Station to King’s Stairs Gardens (drive D). The flows would then be transferred via the Lee Tunnel (which is already under construction) to Beckton Sewage Treatment Works.

At phase two consultation, we are proposing that the main tunnel extends to Acton Storm Tanks, where we also need to intercept a CSO (drive H). The main tunnel would then follow the previous preferred route to finish at Abbey Mills. The sites at both ends of the main tunnel would only be used to take the tunnel boring machines (TBMs) out of the ground and are known as reception sites.

Barn Elms/Carnwath Road Riverside

At phase one consultation, Barn Elms was our preferred site to construct the main tunnel and to intercept the existing local CSO (West Putney Storm Relief CSO). We proposed to drive a short section of the main tunnel to Hammersmith Pumping Station site (drive A) and then drive the main tunnel towards Tideway Walk (drive B).

After phase one consultation we reviewed the size of our main tunnel sites in areas of clay geology and we no longer need as much space as we previously thought. Because of this we have re-assessed potential sites in the west. At phase two consultation, we propose to use Carnwath Road Riverside to drive the main tunnel to Acton Storm Tanks (drive H).

Carnwath Road Riverside is now our preferred site. The main reasons are:

- it is a brownfield site
- the existing wharves and the width of the River Thames at this point would allow the use of larger barges to remove material excavated during construction of the main tunnel
- there would be much less conflict with the recreational uses of the River Thames than at Barn Elms.

For more information on the selection of this site please see the Carnwath Road Riverside Site information paper.

We would still need a site at Barn Elms to intercept the West Putney Storm Relief CSO located there. At Barn Elms this will significantly reduce the construction area and time on site.

Tideway Walk/Kirtling Street

At phase one consultation, Tideway Walk was our preferred site to construct the main tunnel and to intercept the two local CSOs (Heathwall Pumping Station CSO and South West Storm Relief CSO). This site would receive the main tunnel from Barn Elms (drive B) and drive the main tunnel to King’s Stairs Gardens (drive C). Since then, the site has been granted planning permission and work has started on a new residential development. This means that the site is no longer available to the project.

At phase two consultation, we propose to use Kirtling Street, which is located to the west of the Tideway Walk site. We propose to use Kirtling Street as a double drive site (drives I and J). This means we would drive one section of the main tunnel westward to Carnwath Road (drive I) and drive another section of the tunnel eastward to Chambers Wharf (drive J).

Kirtling Street is now our preferred site to tunnel both east and west (at the same time) because it is brownfield land in a mainly industrial area. It also has more space to accommodate the tunnelling activities associated with a main tunnel double drive site. By including the land at Cringle Street (next to the Kirtling Street site) we there is also more river frontage, which would provide better arrangements for jetties and barges.

As Kirtling Street is not located next to the two CSOs we also need to intercept, we propose using another site at the Heathwall Pumping Station including the use of Middle Wharf.

For more information on the selection of this site please see the Kirtling Street and Heathwall Pumping Station Site information papers.
Combined sewer overflow (CSO) sites and connection tunnels
At phase one consultation we presented 20 preferred CSO sites, three of them combined with main tunnel sites. At phase two consultation we propose 17 preferred CSO sites. Further technical work has allowed us to drop three CSO sites.

The following explains what we proposed at phase one and phase two consultation, and provides a snapshot of the potential consequences of the changes.

**Acton Storm Tanks**
We still intend to use this site to intercept the Acton Storm Relief CSO. At phase one consultation, we proposed to drive a connection tunnel to the site from Hammersmith Pumping Station (drive E). We are now proposing to drive the main tunnel from Carnwath Road Riverside to the site (drive H), which will involved a slightly larger shaft and longer construction period.

<table>
<thead>
<tr>
<th>Phase one consultation</th>
<th>Phase two consultation</th>
<th>Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept the CSO, and receive a small TBM.</td>
<td>Intercept the CSO and receive the main tunnel TBM.</td>
<td>Slightly larger construction area required and a longer construction period.</td>
</tr>
</tbody>
</table>

**Hammersmith Pumping Station**
At phase one consultation, we proposed to use the site to drive a connection tunnel to the Acton Storm Tanks site (drive E) and to intercept the Hammersmith Pumping Station CSO. We also proposed to use this site to receive the main tunnel from Barn Elms (drive A).

At phase two consultation we propose to only use this site to intercept the CSO as we now propose to drive the main tunnel from Carnwath Road Riverside to Acton Storm Tanks (drive H).

<table>
<thead>
<tr>
<th>Phase one consultation</th>
<th>Phase two consultation</th>
<th>Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept the CSO, drive a connection tunnel, and receive the main tunnel TBM.</td>
<td>Intercept the CSO.</td>
<td>Reduced construction area and time on site.</td>
</tr>
</tbody>
</table>

**Barn Elms**
At phase one consultation we proposed to use the site to drive the main tunnel up to the Hammersmith Pumping Station site and to then drive the main tunnel to the Tideway Walk site in Battersea (drives A and B).

Since phase one consultation, we have identified Carnwath Road Riverside as our preferred alternative site over Barn Elms for the construction of the main tunnel. However, we still require a site at Barn Elms to intercept the West Putney Storm Relief CSO located there.

**Putney Bridge Foreshore**
This remains our preferred site at phase two consultation, to intercept the CSO located underneath Putney Bridge. We have listened to stakeholders and made improvements to the construction layout to help reduce local impacts.
Changes

Bell Lane Creek/Dormay Street

At phase one consultation, we proposed to use the site to intercept the Frogmore Storm Relief (Bell Lane Creek) CSO and to construct a connection tunnel to the main tunnel and connect to the Frogmore Storm Relief (Buckhold Road) CSO.

For phase two consultation, we have identified a potential alternative site at Dormay Street, just to the north of the Bell Lane Creek site. Use of this site would mean that we do not have to use the premises of a local business, which would have needed to be relocated.

King George’s Park

This remains our preferred site at phase two consultation to intercept Frogmore Storm Relief (Buckhold Road CSO). There is no change to the connection tunnel, except it would now come from Dormay Street instead of Bell Lane Creek.

Jews Row

Further technical work undertaken since phase one consultation has concluded that it is no longer necessary to identify a site for the interception of these two CSOs. This is because modifications to the existing sewerage system will sufficiently reduce the number of spills to the river, without the need to carry out any further works to intercept the CSO.

<table>
<thead>
<tr>
<th>Phase one consultation</th>
<th>Phase two consultation</th>
<th>Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept the CSO at the Bell Lane Creek site and construct a connection tunnel to the Frogmore Storm Relief (Buckhold Road) CSO and the main tunnel.</td>
<td>Intercept the CSO at Dormay Street and construct a connection tunnel to the Frogmore Storm Relief (Buckhold Road) CSO and the main tunnel.</td>
<td>Change of site, no overall change in construction activity. Local business no longer needs to be relocated.</td>
</tr>
</tbody>
</table>

Bridges Court Car Park/Falconbrook Pumping Station

At phase one consultation we proposed to use an area of the Bridges Court Car Park to intercept the Falconbrook Pumping Station CSO. We have now identified a potential alternative site at the Falconbrook Pumping Station itself, which is now seen as technically feasible and allows us to make use of our own land.

Phase two consultation

Intercept the CSO using Bridges Court Car Park as a worksite.

Change of site, no overall change in construction activity.

<table>
<thead>
<tr>
<th>Phase one consultation</th>
<th>Phase two consultation</th>
<th>Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept the CSO using Bridges Court Car Park as a worksite.</td>
<td>Intercept the CSO using Falconbrook Pumping Station and some surrounding land as a worksite.</td>
<td>Change of site, no overall change in construction activity.</td>
</tr>
</tbody>
</table>

Bridges Court Car Park and Falconbrook Pumping Station sites
Changes

Cremorne Wharf Foreshore/Cremorne Wharf Depot
At phase one consultation we proposed to use the foreshore in front of Cremorne Wharf Depot to intercept the Lots Road Pumping Station CSO. At phase two our preferred location to intercept the CSO is Cremorne Wharf Depot, as we can access the site from Lots Road, instead of using a part of Cremorne Gardens for this purpose.

<table>
<thead>
<tr>
<th>Phase one consultation</th>
<th>Phase two consultation</th>
<th>Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use the foreshore site at Cremorne Wharf to intercept the CSO.</td>
<td>Use the depot site at Cremorne Wharf to intercept the CSO.</td>
<td>Change of site, no overall change in construction activity. No longer need to use Cremorne Gardens for access.</td>
</tr>
</tbody>
</table>

Albert Embankment Foreshore, Victoria Embankment Foreshore and Blackfriars Bridge Foreshore
These sites have not changed and remain our preferred sites at phase two consultation to intercept their respective CSOs.

Druid Street
At our phase one consultation we identified the site at Druid Street to intercept the Shad Thames Pumping Station CSO. After carrying out more detailed investigations and analysis into how the local sewer system operates, we no longer need the site at Druid Street if we instead make modifications to the existing Shad Thames Pumping Station.

<table>
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<tr>
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<th>Phase two consultation</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Intercept the CSO at Druid Street.</td>
<td>Modifications to the existing Shad Thames Pumping Station.</td>
<td>Site at Druid Street is no longer required.</td>
</tr>
</tbody>
</table>

Chelsea Embankment Foreshore
At phase one consultation we proposed a foreshore site opposite Ranelagh Gardens, which was further from the CSO as we were trying to avoid the area identified and protected for Crossrail 2, the Chelsea Hackney line. Crossrail no longer consider our site to be a problem, at phase two consultation the foreshore remains our preferred site, but it has been moved westward.

King Edward Memorial Park Foreshore
At phase one consultation we proposed to use the foreshore. Since phase one consultation, we have looked at potential alternative sites but we believe the foreshore location with a revised layout should remain our preferred phase two site to intercept the CSO (as the existing sewer runs through the park) and to connect it to the main tunnel.

Butcher Row
We have carried out detailed investigations and analysis into how the local sewerage system operates and we have now found we no longer need to use the site at Butcher Row to intercept the local CSO. A temporary worksite will be required at Bekesbourne Street to make the necessary modifications to the sewerage system.

Earl Pumping Station
This site has not changed and remains our preferred site at phase two consultation to intercept this CSO.

<table>
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<tr>
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<th>Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept the CSO using the foreshore at Butcher Row as a worksite.</td>
<td>Intercept the CSO using the site at Deptford Church Street.</td>
<td>Change of site, no overall change in construction activity.</td>
</tr>
</tbody>
</table>

Borthwick Wharf Foreshore
At phase one consultation we identified an area of foreshore at Borthwick Wharf to intercept the Deptford Storm Relief CSO. We have since identified a preferred alternative site at Deptford Church Street.

<table>
<thead>
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<th>Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept the CSO using the foreshore at Borthwick Wharf as a worksite.</td>
<td>Intercept the CSO using the site at Deptford Church Street.</td>
<td>Change of site, no overall change in construction activity.</td>
</tr>
</tbody>
</table>

Borthwick Wharf Foreshore and Deptford Church Street sites

Cremorne Wharf Foreshore and Depot sites

King Edward Memorial Park Foreshore

Borthwick Wharf Foreshore and Deptford Church Street sites
Greenwich Pumping Station
At phase one consultation we proposed to use this site to intercept the local CSO and to receive a TBM from King’s Stairs Gardens (drive F). At phase two this remains our preferred site to intercept the CSO, but with some additional land at Phoenix Wharf we propose to drive a connection tunnel to Chambers Wharf (drive L). This connection tunnel also connects two other CSOs (Earl Pumping Station CSO and Deptford Church Street CSO) to the main tunnel.

<table>
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<tr>
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<th>Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receive a TBM from King’s Stairs Gardens and intercept the CSO.</td>
<td>Drive a connection tunnel from the site to Chambers Wharf and intercept the CSO.</td>
<td>Site now used to drive the connection tunnel.</td>
</tr>
</tbody>
</table>