



# Application for Development Consent

Application Reference Number: WWO10001

Written summaries of the cases  
put orally at the hearings held  
on 20 December 2013

Doc Ref: **APP42.14**



# Compulsory acquisition hearings

## Day 14 – 20.12.13

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## 1 Introduction

- 1.1.1 This document contains a written summary of the oral submissions made by Thames Water Utilities Limited ('Thames Water') at the compulsory acquisition hearing held on 20 December 2013, as part of the examination of the application for development consent for the Thames Tideway Tunnel project. The Examining Authority ('ExA') in respect of the application set out the agenda for the compulsory acquisition hearings ('Agenda') by way of a letter, dated 18 November 2013, addressed to interested parties. This written summary of Thames Water's submissions is broadly structured by reference to the items on that Agenda that were addressed at the hearing on 20 December 2013.

## 2 Second written questions

### 2.1 Legal submissions by Michael Humphries QC

- 2.1.1 Thames Water received the ExA's second written questions and request for information on 19 December. Thames Water is beginning to look at and analyse those questions with a view to responding to them. However, it has been noticed that a large proportion of the questions relate to alternative sites or drive strategies that are neither part of the application nor before the Secretary of State. Thames Water noted that many of the questions in relation to sites and drive strategies that are not part of the application require, potentially, considerable amounts of work to provide the requested information.
- 2.1.2 By way of example, it was noted that Question 23.5 is a compulsory acquisition question where Thames Water is asked to provide 'land plans' and 'books of reference' in relation to alternative sites or schemes, such as Abbey Mills being used as a drive site, Heckford Street and part of King Edward Memorial Park as a replacement for the KEMP foreshore site, replacing Carnwath Road Riverside as a drive site with Barn Elms, and Deptford Church Street being removed as a worksite and flows instead being picked up at Greenwich Pumping Station. Indeed, Question 23.6 even asks Thames Water to provide a Funding Statement to reflect alternatives that, as said, form no part of the application before the Secretary of State. Such questions are not confined to compulsory acquisition issues and, by way of example, Thames Water drew attention to Question 32.7, where it is asked to carry out detailed construction noise assessments under BS5228 for sites, or uses of sites, which are not part of the application.
- 2.1.3 Thames Water made two points in respect of such requests. The first is that it may not be possible to carry out all of that work by the 13 January 2014 deadline. The original books of reference for the application scheme took several months to compile. Thames Water simply does not have the equivalent data for alternative sites for which it has not applied. Similarly, other requests, such as that given above in respect of BS5228

construction noise assessments for sites, or uses of sites, that form no part of the application, would require very considerable additional work by consultants. Again, Thames Water is not confident that all of this additional work could be completed by the 13 January 2014 deadline.

2.1.4 There is, however, a second point, in that Thames Water is not certain what purpose is properly served by supplying such a level of detailed in respect of sites or drive strategies that are not before the Secretary of State. Thames Water drew attention to the fact that a number of the ExA's second written questions appear to go well beyond anything contemplated in the NPS as being required in relation to any consideration of alternatives.

2.1.5 Thames Water has already made both oral and written submissions on the proper consideration of alternatives in the context of the examination. Paragraph 2.6.34 of the NPS for Waste Water states that:

*“The examining authority and the decision maker should undertake any assessment of an application for the development of the Thames Tunnel on the basis that the national need for this infrastructure has been demonstrated. The appropriate strategic alternatives to a tunnel have been considered and it has been concluded that it is the only option to address the problem of discharging unacceptable levels of untreated sewage into the River Thames within a reasonable time at a reasonable cost. It would be for Thames Water to justify in its application the specific design and route of the project that it is proposing, including any other options it has considered and ruled out.”*

2.1.6 It is in the chapter on 'need' and the paragraph itself is in a section with the subheading 'Thames Tunnel conclusion on need'. The penultimate sentence dealt with *“the problem of discharging unacceptable levels of untreated sewage into the River Thames”* and concluded that a tunnel option is the only strategic alternative to address that problem within a reasonable time at a reasonable cost. It is within that context of needing to address the problem of discharging unacceptable levels of untreated sewage into the River Thames, that the paragraph ends by stating that *“It would be for Thames Water to justify in its application the specific design and route of the project that it is proposing, including any other options it has considered and ruled out”*. As stated in its oral and written submissions in relation to the first week of issue-specific hearings on 'rationale' for the selection of sites, Thames Water's evidence has justified the specific design and route of its project in meeting the problem of uncontrolled discharges, and has identified and explained, in that context, the other options it has considered and ruled out.

2.1.7 Thames Water made it clear that there is nothing in paragraph 2.6.34 that could properly form the basis for the request to Thames Water, for example, that it prepare a detailed book of reference for alternative shaft sites or BS5228 construction noise assessments for different drive strategies. Nor is there anything in Section 3.4 of the NPS which deals with the approach to that the ExA should adopt to the consideration of alternatives, that properly requires such a detailed level of information.

- 2.1.8 Thames Water stated that it would seek to supply such information as it was able to in relation to the ExA's second written questions by 13 January 2014. Thames Water will prioritise its resources by seeking first to answer those questions which relate to the application that has been made. In response to an invitation by the ExA, Thames Water also indicated that it may need to seek clarification on some of the questions.

## 3 Article 34

### 3.1 Legal submissions by Michael Humphries QC

- 3.1.1 The ExA asked Thames Water a question in relation to Article 34.8(a)/(b), as shown in the September 2013 version of the *Draft DCO* (Doc ref: 9.22.01). Article 34.1(a)(i) identifies certain land (the Schedule 14 land) within the Order Land where Thames Water may exercise powers of temporary possession. Article 34.8 provides that Thames Water may not compulsorily acquire the land referred to in Article 34.1(a)(i), but is not to be precluded from (a) acquiring new rights over any part of that land under Article 28 (compulsory acquisition of rights) or (b) acquiring any part of the subsoil of (or rights in the subsoil of) of that land under Article 29 (acquisition of subsoil only). Article 34.1(a)(ii) relates to that 'other' land within the Order Land where Thames Water may compulsorily acquire the land.
- 3.1.2 It is important to note that Article 34.8 does not itself grant the right to compulsorily acquire rights under Article 28 or subsoil under Article 29, it simply makes it clear that Thames Water is not precluded from exercising those powers in relation to the Article 34.1(a)(i) land (ie, the Schedule 14 land).
- 3.1.3 In relation to the plot of land at the Greenwich Pumping Station where this issue arose, namely Plot 16, that is Schedule 14 land and has not been identified as land where Thames Water seeks to acquire rights under Article 28. It is, therefore, rightly shown on the Land Acquisition Plan and included in the Order Land Schedule as being required for temporary possession only. Article 34.8 does not alter that. By contrast, and by way of example only, Plot 28 at the Abbey Mills Pumping Station (which is included in Schedule 14 of the *Draft DCO*) is shown on the Land Acquisition Plan and the Order Land Schedule as being required for temporary possession and the acquisition of rights. That is also correct. Article 34.8 simply makes it clear that, although Thames Water may not compulsorily acquire the freehold of Schedule 14 land, it may still acquire a right, where shown in the *Book of Reference*, and may still acquire subsoil.

## 4 Greenwich Pumping Station

### 4.1 Submissions by Derek Arnold

#### Introduction

- 4.1.1 The following documents were referred to:
- a. *Engineering Design Statement* (Doc ref: 7.18)
  - b. Response to first written question 4.31g (Doc ref: APP04)
  - c. Permanent works layout drawing number DCO-PP-23X-GREPS-240009
  - d. Construction phase drawing number DCO-PP-23X-GREPS-240028
  - e. Works plan and section drawing number DCO-WP-000-ZZZZZ-010048
  - f. Land plan drawing number DCO-LP-000-ZZZZZ-030038 – Rev 2
  - g. Land acquisition plan drawing number DCO-LA-000-ZZZZZ-020038 – Rev 1.
- 4.1.2 In the *Engineering Design Statement*, we set out how the site would be used. In our response to first written question 4.31g, we describe the alternative locations we considered for the permanent works.
- 4.1.3 At Greenwich Pumping Station, there are two existing pumping stations: a dry weather flow and a storm flow pumping station. The Greenwich Pumping Station takes flow from the following existing sewers: Low Level Sewer No. 1 Bermondsey branch, southern Low Level Sewer No. 1 mainline, Low Level Sewer No. 2 mainline, the East Greenwich Sewer and the East Greenwich Relief Sewer. As the name of the first three implies, they are low level sewers and the function of the existing pumping station is to pump the flow received here either through the dry weather pumps to the Crossness Sewage Treatment Works or, when the capacity is exceeded, the storm pumps start and they pump the storm flows through an outfall pipe, which discharges to the river some distance away near the Cutty Sark exhibition.
- 4.1.4 The Southern High Level Sewer is another sewer in the site, but it is a higher level sewer which passes on to Crossness Sewage Treatment Works, using gravity rather than being pumped. The Southern High Level sewer is the sewer which overflows through the Deptford Storm Relief, which we intercept at Deptford Church Street. The Southern High Level Sewer and the Deptford Storm Relief sewer cannot be intercepted at Greenwich Pumping Station, because the flows overflow into the Deptford Storm Relief sewer before reaching the Greenwich Pumping Station site. They are part of a different sewer system and, although they are physically close together, they are not hydraulically connected in a way which will allow an interception at Greenwich Pumping Station to pick up the flows in the Deptford Storm Relief sewer.

- 4.1.5 The CSO drop shaft is a 17 metre internal diameter drop shaft about 46 metres deep. During a typical year, we will intercept a design flow of about 36 cubic metres per second, which is a very substantial amount of overflow. The blue shaft polygon is drawn tightly as there is very little flexibility for optimising the design and the position of the drop shaft. The drop shaft is raised by about 1.1 metres above ground level. The interception chamber and valve chambers will also be raised above ground level.
- 4.1.6 The site is constrained to the west by the Deptford Creek, to the north by both the DLR railway viaduct and Network Rail railway viaduct, and to the east by Norman Road.
- 4.1.7 The east beam engine house of the pumping station is a listed building, but is currently unused. We propose to locate an air treatment facility inside the building to treat an air flow of 4 cubic metres per second.
- 4.1.8 The green polygon includes the west beam engine house because there are some electrical connections to be made within that pumping station building for the new facilities.
- 4.1.9 Some realigning of access roads and fences will be required.
- 4.1.10 The construction phase plan shows the site layout for driving the Greenwich connection tunnel, using a slurry-type tunnel boring machine.
- 4.1.11 The pumping station site itself is not big enough so we propose to acquire a site to the north of the railway, which is currently an industrial area known as Phoenix Wharf. We propose to use that northern part of the site for the slurry treatment facilities and the excavated material and handling areas. It has its own access and egress points onto Norman Road. The proposal is that the slurry pipes from the tunnel boring machine would be laid or configured so that they pass through one of the arches of the railway viaduct from the southern part of the site to the northern part of the site and back again.
- 4.1.12 We propose to divert the footpath temporarily closer to the railway viaduct so that we can maximise the use of the area there. The area where the drop shaft is located has its own access and egress points from Norman Road. To maximise the use of Thames Water land, some facilities would be located beneath the old coal sheds. Although these are listed structures, we propose to work under them without damaging them. The southern part of the site will be restricted for use by light construction vehicles and we will use the existing Thames Water access off the High Road.
- 4.1.13 The borough boundary between the London Borough of Lewisham and the Royal Borough of Greenwich runs along Deptford Creek. There is a small section of tunnel within the Royal Borough of Greenwich from the drop shaft.
- 4.1.14 The ExA requested a diagram which shows the relationship of all the sewers in this location.
- 4.1.15 A diagram of the sewerage system in the vicinity of Greenwich Pumping Station will be submitted on 13 January 2014.



- 4.1.16 The ExA sought clarification on access for the DLR to its viaduct.
- 4.1.17 The access off Norman Road, beside the diverted footpath, is a construction access road which would also be used to give DLR access to its viaduct area. The primary construction accesses are those further to the south on Norman Road.

## 4.2 Submissions from Paul Lidgley

### Alternatives – property assessment

- 4.2.1 The application for development consent document reference relevant to this response is 7.05 Volume 22 and it is the *Final Report on the Site Selection Process*, submitted by Thames Water on 23 September 2013.

#### Introduction

- 4.2.2 The site selection process identified the final shortlisted sites for this CSO in the Royal Borough of Greenwich and the London boroughs of Lewisham and Southwark. The site selection process included consideration of some of the Greenwich connection tunnel drive site options. The property team made an assessment for each of the shortlisted sites as follows.

#### C33XV – Greenwich Pumping Station

- 4.2.3 This site is mainly the existing Thames Water pumping station but includes a small area of open storage land owned by Network Rail immediately to the north.
- 4.2.4 The site was assessed as a joint CSO interception and connection tunnel reception site. The permanent structures would all be situated on Thames Water land.

#### Crown land and special land comments

- 4.2.5 The Network Rail land is owned by a statutory undertaker, and acquisition is therefore subject to the provisions of Section 127, although the land is let to a commercial tenant and is therefore not currently in operational railway use. We did not identify any Crown land interests.
- 4.2.6 A DLR viaduct crosses the northern part of the site from Norman Road in the east to Deptford Creek in the southwest. The viaduct is owned by the DLR on a ‘flying freehold’ basis, together with freehold ownership of two plots on which the supporting piers stand (plots 23 and 40), and DLR also has rights of access for maintenance and a five metre protection zone on either side of the viaduct. The Thames Water freehold beneath the viaduct is subject to a number of use restrictions, for the protection of the viaduct.
- 4.2.7 Thames Water is in discussion with DLR on the terms of an asset protection agreement in relation to the viaduct. That agreement will maintain DLR’s rights of access to the viaduct during construction, which will also be addressed in the *Code of Construction Practice* for this site.

#### **Property valuation comments**

- 4.2.8 The majority of the site is in Thames Water ownership, and the acquisition cost of the remainder, for temporary construction use, was assessed as likely to be acceptable.

#### **Disturbance compensation comments**

- 4.2.9 The Network Rail land is occupied but we understand under a relatively short term lease, and disturbance costs were not expected to be significant.

#### **Discretionary purchase comments**

- 4.2.10 There are residential properties to the southwest of the pumping station, some distance from the CSO shaft works, and the potential for discretionary purchase costs was assessed as low.

#### **Off-site compensation comments**

- 4.2.11 The site was assessed to hold little or no risk of off-site statutory compensation costs.

#### **Site conclusions**

- 4.2.12 The prospect of acquisition of the additional land required by agreement in advance of compulsory acquisition was considered reasonable.
- 4.2.13 The site was assessed by the property team as suitable.

#### **C33XV and CL004 – Greenwich Pumping Station and Greenwich Industrial Estate**

- 4.2.14 This site combination was assessed as a joint CSO interception and connection tunnel drive site, comprising the pumping station and additional land at the former industrial estate on the eastern side of Norman Road.
- 4.2.15 The industrial estate was owned by the Royal Borough of Greenwich but transferred into a joint venture arrangement with private developers, and a planning application had been made to redevelop the site with a mixed use residential, retail and hotel scheme (now known as Prime Place).

#### **Crown land and special land comments**

- 4.2.16 The site was owned by the local authority but intended for commercial development, and we considered it was unlikely to be special land and therefore not subject to the requirements of sections 131/132.

#### **Property valuation comments**

- 4.2.17 The potential cost to acquire the industrial estate was assessed as moderate, but it was recognised that when planning permission was granted for the proposed scheme, the value could rise significantly and if such permission was implemented, the acquisition costs would become unacceptably high. Note: The scheme is now under construction.

#### **Disturbance compensation comments**

- 4.2.18 The estate was not occupied and disturbance costs were not expected to be significant.

#### **Discretionary purchase comments**

- 4.2.19 The estate was part of a mainly industrial area and the potential for increased disturbance was assessed as low, with limited potential for discretionary purchase costs.

#### **Off-site compensation comments**

- 4.2.20 The site was assessed to hold little or no risk of off-site statutory compensation costs.

#### **Site conclusions**

- 4.2.21 The prospect of acquisition of the industrial estate by agreement in advance of compulsory acquisition was considered low, in view of the owners' intentions to redevelop, and the prospect of planning permission for the intended scheme added significant acquisition cost risk.
- 4.2.22 This site option was assessed by the property team as less suitable, due to the potential planning and acquisition cost risk associated with the industrial estate.

#### **C33XV and CL005 – Greenwich Pumping Station and Phoenix Wharf**

- 4.2.23 This site combination was assessed as a joint CSO interception and connection tunnel drive site, comprising the pumping station and additional land to the north, known as Phoenix Wharf.
- 4.2.24 Phoenix Wharf is part owned by Network Rail (part of Plot 16) and partly by Halliard Property Company Limited (Plot 33), and it is let by way of two leases to Jewson Builders Merchants. The lease from Network Rail to Jewson includes a number of arches within the railway viaduct as well as open yard space.

#### **Crown land and special land comments**

- 4.2.25 The Network Rail land is owned by a statutory undertaker and acquisition is therefore subject to the provisions of Section 127, although the land is let to a commercial tenant and is therefore not currently in operational railway use. An operational viaduct crosses the site. We did not identify any Crown land interests.

#### **Property valuation comments**

- 4.2.26 The potential cost to acquire Phoenix Wharf for temporary construction use was assessed as significant but acceptable. The freeholders have aspirations to redevelop the site with a mixed use residential and business use scheme, although no application for planning permission has been submitted yet.

#### **Disturbance compensation comments**

- 4.2.27 Phoenix Wharf is occupied by Jewson and disturbance costs were expected to be significant, although within an acceptable level. It is recognised that if the business cannot be relocated within the area, this part of Jewson's business could be effectively extinguished due to the length of the temporary use for construction.

#### **Discretionary purchase comments**

- 4.2.28 The estate was part of a mainly industrial area and the potential for increased disturbance was assessed as low, with limited potential for discretionary purchase costs.

#### **Off-site compensation comments**

- 4.2.29 The site was assessed to hold little or no risk of off-site statutory compensation costs.

#### **Site conclusions**

- 4.2.30 The prospect of acquisition of Phoenix Wharf by agreement in advance of compulsory acquisition was considered reasonable, given that it is required only for temporary use

- 4.2.31 This site option was assessed by the property team as suitable.

#### **C33XV and S74SK – Greenwich Pumping Station and Boatyard at Calypso Way**

- 4.2.32 This site combination was assessed as a CSO interception and tunnel reception site at Greenwich Pumping Station, and a connection tunnel drive site at the boatyard, the latter being within the London Borough of Southwark.

- 4.2.33 The boatyard is owned by the London Borough of Southwark and operated as part of South Dock Marina. It is close to residential properties to the west.

#### **Crown land and special land comments**

- 4.2.34 The boatyard is owned by a local authority. We did not identify any Crown land interests.

#### **Property valuation comments**

- 4.2.35 The potential cost to acquire the boatyard for temporary construction use and in part permanently was assessed as significant but acceptable.

#### **Disturbance compensation comments**

- 4.2.36 The boatyard is part of the marina operation and disturbance costs were expected to be significant, although within an acceptable level. It was recognised that it would be difficult to replace the boatyard and that part of the operation could be temporarily extinguished during construction.

**Discretionary purchase comments**

- 4.2.37 There are residential properties close to the boatyard, and the potential for increased disturbance was recognised, with potential for discretionary purchase costs.

**Off-site compensation comments**

- 4.2.38 The site was assessed to hold little or no risk of off-site statutory compensation costs.

**Site conclusions**

- 4.2.39 The prospect of acquisition of the boatyard by agreement in advance of compulsory acquisition was considered low, given the impact on the marina operation
- 4.2.40 This site option was, however, assessed by the property team as suitable.

**C33XV and S01LM – Greenwich Pumping Station and Convoys Wharf**

- 4.2.41 This site combination was assessed as a CSO interception and tunnel reception site at Greenwich Pumping Station, and a connection tunnel drive site at Convoys Wharf, the latter being within the London Borough of Lewisham.
- 4.2.42 Convoys Wharf is a privately owned site intended for redevelopment.

**Crown land and special land comments**

- 4.2.43 At this site, we did not identify any Crown land interests or other special categories of land.

**Property valuation comments**

- 4.2.44 The potential cost to acquire part of Convoys Wharf for temporary construction use and in part permanently was assessed as significant but acceptable.

**Disturbance compensation comments**

- 4.2.45 There were no occupiers to be relocated, and disturbance compensation was unlikely to be significant unless the site was developed.

**Discretionary purchase comments**

- 4.2.46 There are residential properties close to Convoys Wharf, and the potential for increased disturbance was recognised, with potential for discretionary purchase costs.

**Off-site compensation comments**

- 4.2.47 The site was assessed to hold little or no risk of off-site statutory compensation costs.

### **Site conclusions**

- 4.2.48 The prospect of acquisition of part of Convoys Wharf by agreement in advance of compulsory acquisition was considered low, given the landowner's intentions to redevelop the site
- 4.2.49 This site option was, however, assessed by the property team as suitable.

### **Conclusions by property team**

- 4.2.50 While land at the existing Thames Water pumping station was available for interception of the CSO, additional land was necessary for the connection tunnel drive site.
- 4.2.51 The alternatives were explored and the combination of C33XV and CL005 was considered preferable in property and compensation terms, as the permanent works could all be sited on existing Thames Water land, and the use of compulsory acquisition powers would be in respect of land required for temporary construction use only.

## **Negotiations with landowners and occupiers at Greenwich**

### **Network Rail**

- 4.2.52 Thames Water has been in discussion with Network Rail for some time about the temporary use of land at Greenwich, and also in respect of subsoil acquisition and asset protection elsewhere. In principle, Network Rail does not object to the use of land at this location, and draft Heads of Terms have been prepared for temporary use of the site and are under review by both parties.
- 4.2.53 Network Rail will require Thames Water to address all issues relating to the displacement of Jewson and any other tenant from the land, including all relocation matters and business compensation arising. We anticipate reaching agreement in the near future.

### **Halliard Property Company Limited**

- 4.2.54 Thames Water has been in discussions with Halliard for some time about the temporary use of Phoenix Wharf. Halliard has been in discussions with the local planning authority regarding the potential redevelopment of the site, and this will be taken into account in a property agreement with the company. Draft Heads of Terms have been prepared, providing for an overriding lease of the site, and are under review by both parties.
- 4.2.55 Halliard will require Thames Water to address all issues relating to the displacement of Jewson from the land, including all relocation matters and business compensation arising. Jewson's lease of the Halliard land (Plot 33) expired in September 2012 and the company is holding over on the terms of the old lease under the provisions of the Landlord and Tenant Act 1954. We anticipate reaching agreement with Halliard in the near future.

### **Docklands Light Railway**

- 4.2.56 Substantive discussions have been taking place for a considerable time with Transport for London (TfL) and DLR on a range of issues, including

asset protection and property agreements. Draft Heads of Terms have been in circulation for several months. The principal issues at this site are those of asset protection, while a small subsoil interest is also required.

### **Jewson Limited**

- 4.2.57 We are in discussions with Jewson over the implications of the temporary use of Phoenix Wharf for construction. We recognise that temporary use of the site for an extended period will require, in practical effect, the permanent relocation or extinguishment of this branch of the company's business, and we are reviewing the local market for any potentially suitable alternative sites to assist with the relocation process
- 4.2.58 Thames Water is not seeking to acquire Jewson's existing leasehold interests. We accept that compensation for business disturbance, and possibly extinguishment of this branch, will arise with use of this site.

## **5 Abbey Mills Pumping Station**

### **5.1 Submissions by Derek Arnold**

#### **Introduction**

- 5.1.1 The following documents were referred to:
- a. *Engineering Design Statement* (Doc ref 7.18)
  - b. Response to first written question 4.31g (Doc ref: APP04)
  - c. Permanent works layout drawing number DCO-PP-26X-ABMPS-270007
  - d. Construction phase drawing number DCO-PP-26X-ABMPS-270012
  - e. Works plan and section drawing number DCO-WP-000-ZZZZZ-010056
  - f. Land plan drawing number DCO-LP-000-ZZZZZ-030045 - Rev 2
  - g. Land acquisition plan drawing number DCO-LA-000-ZZZZZ-020045 - Rev 1.
- 5.1.2 In the *Engineering Design Statement*, we set out how the site would be used. In our response to first written question 4.31g we describe the alternative locations we considered for the permanent works.
- 5.1.3 Thames Water has made arrangements for a second shaft to be built at this site by the Lee Tunnel contractor which, using its naming convention, is known as Shaft G. That shaft will be built by the Lee Tunnel contractor, therefore there is no need for the Thames Tideway Tunnel project to build a shaft at this site.
- 5.1.4 The Thames Tideway Tunnel project work will include the ventilation connection for Shaft G and a permanent roof for Shaft G. The Lee Tunnel team will leave Shaft G with only a temporary roof so that the tunnel boring



machine, driven from Chambers Wharf, can be removed from Shaft G and so secondary lining of the tunnel can commence.

- 5.1.5 The LLAU extends to the north, to Gay Road, to gives us access across the pumping station site to the highway at Gay Road.
- 5.1.6 The LLAU extends down to and across Prescott Channel. If the contractor transports materials using barges, the footpath would not be able to safely continue along its current alignment. In such circumstances, it is envisaged to put a footpath over the Prescott Channel, which is the arrangement used by the Lee Tunnel.
- 5.1.7 There is still an opportunity for some materials to be transported to Abbey Mills Pumping Station by river. The transport strategy will encourage contractors to increase use of river-based transport. It is possible that a contractor could transport sand and aggregates for secondary lining of the tunnel using the area of Prescott Channel to unload.
- 5.1.8 The blue shaft polygon is no longer required, because the Lee Tunnel team have been instructed to build the second shaft, Shaft G. They will drive their tunnel boring machine through Shaft F into Shaft G, where it will be removed. Therefore, the section of main tunnel between the two shafts will be built in a much safer way by the Lee Tunnel team.
- 5.1.9 The limits of deviation for the main tunnel from Chambers Wharf to Abbey Mills Pumping Station splay out as they approach the shafts at Abbey Mills Pumping Station to allow for a slightly different tunnel alignment, depending on the location of the shaft. Now that we know exactly where Shaft G is, we are proposing to draw in the limits of deviation, to be shown on updated drawings which will be submitted on 13 January 2014.
- 5.1.10 The ExA sought clarification on whether the transference shaft works to Lee Tunnel altered the capacity to drive to and from Abbey Mills Pumping Station.
- 5.1.11 Notwithstanding our previous views on transport connectons to Abbey Mills, Thames Water confirmed that Shaft G could be used to drive a tunnel from Abbey Mills Pumping Station to Chambers Wharf, as it is large enough to launch a tunnel boring machine from this site and there be a temporary bulkhead between Shaft G and Shaft F to isolate the two sides of the system hydraulically, which will allow the Lee Tunnel to continue operation.

## 5.2 Submissions by Paul Lidgley

- 5.2.1 The application for development consent document reference relevant to this response is 7.05 Volume 23 and it is the *Final Report on the Site Selection Process* submitted by Thames Water on 23 September 2013.

### Introduction

- 5.2.2 At the phase one consultation stage, the site selection process identified three shortlisted sites for this tunnel reception/drive site in the London Borough of Newham, which were reduced to one site at phase two



consultation and subsequent stages. The property team made an assessment for each of the sites considered as follows.

#### **S84NM – Abbey Mills Pumping Station**

- 5.2.3 This site is almost entirely within the existing Thames Water pumping station, but also includes use of part of the Prescott Channel owned by the Canal & River Trust, and temporary use of a small section of the towpath.

#### **Crown land and special land comments**

- 5.2.4 At this site, we did not identify any Crown land interests or other special categories of land. The Canal & River Trust is a statutory undertaker and use of the Prescott Channel would fall within s127 requirements.

#### **Property valuation comments**

- 5.2.5 As the majority of the site is within Thames Water ownership, potential cost to acquire the land was assessed as likely to be low and therefore acceptable.

#### **Disturbance compensation comments**

- 5.2.6 There were no occupiers and we considered it unlikely there would be any disturbance issues, provided the construction site avoided a number of allotments at the pumping station.

#### **Discretionary purchase comments**

- 5.2.7 The access to the site is close to residential properties to the north but the potential for discretionary purchase costs was assessed as low.

#### **Off-site compensation comments**

- 5.2.8 The site was assessed to hold little or no risk of off-site statutory compensation costs.

#### **Site conclusions**

- 5.2.9 Given the existing Thames Water ownership, the site was assessed by the property team as suitable.

#### **S85NM – Three Mills Green**

- 5.2.10 The site comprises public open space on the west side of the Prescott Channel, being the northern part of Three Mills Island.

- 5.2.11 The site is owned by the London Borough of Newham.

#### **Crown land and special land comments**

- 5.2.12 The site is owned by the local authority and is open space. We considered it was likely to be special land and subject to the requirements of sections 131/132.

#### **Property valuation comments**

- 5.2.13 Given the undeveloped nature of the site, the potential cost to acquire the land at this site was assessed as relatively low and likely to be acceptable.

#### **Disturbance compensation comments**

- 5.2.14 The site is not occupied and it was considered unlikely that costs for disturbance compensation would be significant.

#### **Discretionary purchase comments**

- 5.2.15 There were no residential properties in the vicinity and the potential for discretionary purchase costs was assessed as being low.

#### **Off-site compensation comments**

- 5.2.16 The site was assessed to hold little or no risk of off-site statutory compensation costs.
- 5.2.17 The potential for increased disturbance to businesses in occupation of Three Mills Studios immediately to the south was assessed as potentially significant, and the potential for claims under the non-statutory compensation schemes was recognised.

#### **Site conclusions**

- 5.2.18 The prospect of acquisition by agreement in advance of compulsory acquisition was considered low.
- 5.2.19 The site was assessed by the property team as suitable, but subject to potential acquisition risk due to likely special land status.

#### **S86NM – Three Mills Studios**

- 5.2.20 The site comprises a commercial estate operated by Workspace Group plc. The London Legacy Development Corporation has a long leasehold interest.
- 5.2.21 The site is adjacent to Three Mills Green and forms the southern part of Three Mills Island.

#### **Crown land and special land comments**

- 5.2.22 As the site is in private ownership and commercial use, we did not consider it would be classified as special land.

#### **Property valuation comments**

- 5.2.23 The existing use of the site was taken into account and the potential cost to acquire the site was assessed as likely to be significant.

#### **Disturbance compensation comments**

- 5.2.24 Use of this site would cause significant disturbance to the existing commercial tenants, which could give rise to substantial compensation costs.

#### Discretionary purchase comments

- 5.2.25 There were no residential properties in the vicinity and the potential for discretionary purchase costs was assessed as being low.

#### Off-site compensation comments

- 5.2.26 The site was assessed to hold little or no risk of off-site statutory compensation costs.

#### Site conclusions

- 5.2.27 The prospect of acquisition by agreement in advance of compulsory acquisition was considered low.
- 5.2.28 The site was assessed by the property team as less suitable, on acquisition cost and disturbance grounds.

#### Conclusions by property team

- 5.2.29 The selected site makes use of the existing Thames Water ownership at Abbey Mills Pumping Station.
- 5.2.30 The alternatives to this site were explored and, in all cases, would require the use of compulsory acquisition to a greater extent than at the subject site.

## 6 Beckton Sewage Treatment Works

### 6.1 Submissions by Derek Arnold

#### Introduction

- 6.1.1 The following documents were referred to:
- Engineering Design Statement* (Doc ref: 7.18)
  - Response to first written question 4.31g (Doc ref: APP04)
  - Permanent works layout drawing number DCO-PP-27X-BESTW-270007
  - Construction phase drawing number DCO-PP-27X-BESTW-270012
  - Works plan and section drawing number DCO-WP-000-ZZZZZ-010057, 010058
  - Land plan drawing number DCO-LP-000-ZZZZZ-030046, - Rev 2, 030047 - Rev 2
  - Land acquisition plan drawing number DCO-LA-000-ZZZZZ-020046 - Rev 1, 020047 - Rev 1.
- 6.1.2 In the *Engineering Design Statement*, we set out how the site would be used. In our response to first written question 4.31g, we describe the alternative locations we considered for the permanent works.

- 6.1.3 The Lee Tunnel runs from Abbey Mills Pumping Station, mainly under the existing northern outfall sewer, but when it gets to Beckton Sewage Treatment Works, the tunnel swings northwards and passes through a shaft known as the connection shaft, and then on to another shaft near the river, known as the overflow shaft.
- 6.1.4 Just to the north of the connection shaft is another shaft known as the Tideway Pumping Station. That is the deepest and largest shaft built on either of the projects and contains pumps that enable the tunnels to be pumped out from considerable depth (70 metres deep), initially just the Lee Tunnel, but ultimately the combined tunnels.
- 6.1.5 When the treatment works at Beckton Sewage Treatment Works has capacity, the pumps then pump out the flow which has been stored in the tunnels. They pump the flow to the inlet works via two transfer pipelines. The Lee Tunnel will build the first of the two transfer pipelines connecting the Tideway Pumping Station to the inlet works. A second transfer pipeline will be built as part of the Thames Tideway Tunnel project.
- 6.1.6 The permanent works layout indicates that the two transfer pipelines could either be an above-ground or a below-ground pipeline. Since these drawings were prepared, studies have been carried out for the Lee Tunnel project and it is now confirmed that their transfer pipeline will be above-ground, mounted on pillars. It is logical that our transfer pipeline will be built in the same way.
- 6.1.7 After the Lee Tunnel is commissioned, and when the tunnel is full and exceeds the inlet works capacity to treat flow, the Lee Tunnel will overflow to the River Thames via a new CSO which will be located near the existing jetty.
- 6.1.8 When the Thames Tideway Tunnel system is connected, that overflow system will no longer be suitable and so it is proposed that a relatively small tunnel, siphon tunnel, is built from a location near the Lee Tunnel connection shaft to a location near the Lee Tunnel overflow shaft. The error on the permanent works layout DCO-PP-27X-BESTW-280011 of not showing the siphon tunnel will be corrected with an errata set of drawings on 13 January.
- 6.1.9 The siphon tunnel will be a 2.8 metre internal diameter tunnel and approximately 30 metres deep. The 9 metre internal diameter shaft at the downstream end, near the river, will be used to drive a small tunnel boring machine back towards the 7 metre internal diameter shaft near the connection shaft.
- 6.1.10 The LLAU extends along what is now known as Bazalgette Road to the entrance to the treatment works and the public highway.
- 6.1.11 The ExA asked whether additional storage capacity had been contemplated here to minimise outflows.
- 6.1.12 The answer to this question will be provided on the 13 January 2014.
- 6.1.13 The ExA questioned whether Plot 44 was essential.
- 6.1.14 The answer to this question will be provided on the 13 January 2014.

## 6.2 Submissions by Paul Lidgley

- 6.2.1 There are no site selection issues at this site, as almost all of the land required is within existing Thames Water ownership.
- 6.2.2 Two small land parcels are identified for acquisition in the *Book of Reference*. These are Plot 44, comprising a narrow strip of land at the rear of Gallions Reach Shopping Park and identified as ‘grass verge at the rear of the retail park’, and Plot 76, which is a subsoil plot within the limits of deviation at the rear of a commercial estate owned by Beckton Waterfront Management Limited.

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