



## **Examination of the proposed Thames Tideway Tunnel**

**London Borough of Southwark (Ref. 10018659)**

### **Further written submissions including comments on responses to the first written questions**

**2<sup>nd</sup> December 2013**

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#### **1. Introduction**

1.1 This submission responds to Item 15 of the timetable for examination of the application. It incorporates the following elements:

- Updated written summary of the council's case.
- Comments on the applicant's responses to the first written questions.
- Written summary of the case put orally at the hearings on 26<sup>th</sup> and 27<sup>th</sup> November 2013.
- Response to any other matters arising since the submission of the council's Local Impact Report and Written Representation on 4<sup>th</sup> November 2013.

1.2 Comments provided in response to the applicant's written responses to the first written questions are set out by reference to each section of the written responses, rather than in responses to each particular question. Comments on section 6 of those responses incorporate the written summary of the Council's case put orally at the hearings on 26<sup>th</sup> and 27<sup>th</sup> November

1.3 For brevity, this submission, as far as is possible, does not repeat points and evidence already provided in the council's Local Impact Report, Written Representation and oral evidence given at the issue specific hearings on 12<sup>th</sup> and 15<sup>th</sup> November. A summary of the oral evidence given at these hearings, including legal submissions on procedures for amending the application and draft DCO, has already been submitted on the 26<sup>th</sup> November 2013. For the avoidance of doubt, the Council's position on those points and evidence remains as stated in those documents, unless explicitly adjusted in this submission.

#### **2. Updated 'headline' summary of case**

##### **2.1 *The key issues are:***

- The impacts at Chambers Wharf as a drive site are wholly unacceptable and cannot be adequately mitigated.
- An alternative site is available to drive the tunnel at Abbey Mills, with far less impact

- At Shad Thames, Earl Pumping Station and Blackfriars Bridge Foreshore the mitigation currently proposed is insufficient to prevent and mitigate the harmful impacts resulting from the works.

## **2.2 Chambers Wharf as a drive site**

2.2.1 Significant harm will result from noise, traffic and other impacts. The in-combination impacts from the proposals have been underestimated in the application, particularly in terms of the impacts upon the day to day living conditions of local residents and the learning environment of school children at local schools. Key issues are:

a. *Duration of noise impacts:*

- i. noise for 6 years.
- ii. night-time noise for more than 2 years
- iii. daytime noise constantly for 6 years

b. *Intensity of noise impacts:*

- i. ranges from very intensive to clearly audible, depending on location and activity but one only has to go to the site to have a clear sense of the impact
- ii. Thames Water (TW) suggest that the impact may be less because of mitigation measures, but the mitigation is completely unspecific and there is no certainty that it can or will be delivered.
- iii. One has to have in mind that once the TBMs start there will be an imperative to keep going. Material will have to be got off site. Intensity will therefore not abate.
- iv. TW may not themselves be constructing the project, so public commitments from them are not enough. Cast iron legally binding guarantees are required.

c. *Number or receptors:*

- i. A very large number of properties front onto the site
- ii. A number are single aspect

d. *Mitigation - noise insulation:*

- i. Requires closed windows which is hopeless in single aspect flats
- ii. For some people and at some times of year this is unacceptable
- iii. For many properties the fenestration will create very unpleasant living conditions

2.2.2 This all produces in-combination impacts on residential amenity and health

2.2.3 It also produces significant impact on school children. Many will have their whole primary career within sight and sound of the works

2.2.4 Thames Water place massive weight on the desirability of getting material off site by barge. This is undoubtedly a benefit. But the National Policy Statement (NPS) only says waterborne transport is preferred. Nowhere does it suggest

that that outweighs the massive impact on residents, school children and the community as a whole.

### **2.3 Abbey Mills as a Drive Site**

- 2.3.1 From an operational and engineering perspective, it is acceptable and feasible for it to be amended to a drive site. There is no suggestion from the applicant of excessive cost.
- 2.3.2 Any impact will be well away from residential properties. There will be no construction noise impact.
- 2.3.3 The London Borough of Southwark considers that the main issue is one of construction traffic noise and, therefore, how much of the materials can be taken off the site by barge.
- 2.3.4 The applicant suggests that three barges a day can be used from the site, but studies carried out by the Council showed that five barges per day are feasible. The risks stated by the applicant are considered by the council to be overstated. There is clearly no issue that a significant proportion of materials can be transported by barge, as has been done on Lee Tunnel. The PLA agrees with this position and following recent discussions with the applicant, PLA and LBS, it has been agreed that four barges per day can be realistically achieved with dredging activity restricted to the provision of campsheds.
- 2.3.5 In making its decision on site selection, the applicant has made barge access the determinative factor along with the need for the project expressed in the NPS. However, the NPS is clear that need does not outweigh all other factors.
- 2.3.6 The only real impact at Abbey Mills is construction traffic noise:
- a. This is assessed as impacting upon a maximum of 74 properties. Many of those properties are well set back, so noise will not be significant.
  - b. That noise will continue for a total duration of two years of daytime HGV movements. There will be no night time impacts.
  - c. Shaft G will already have been built allowing further flexibility beyond the programme originally proposed for Abbey Mills.
  - d. This is to be assessed against six years of construction and construction traffic affecting hundreds of properties across day and night at Chambers Wharf.

### **2.4 Conclusion**

- 2.4.1 The London Borough of Southwark concludes that the impacts at Chambers Wharf are wholly unacceptable and cannot be adequately mitigated, the impacts at Abbey Mills are significantly less, and therefore the drive site ought to be switched from Chambers Wharf to Abbey Mills.
- 2.4.2 Adverse impacts will also result from works at Shad Thames, Earl Pumping Station and Blackfriars Bridge Foreshore. Although the council does not object to the principle of these works, further mitigation and controls are required (and need to be properly secured by the DCO) over and above that currently included in the application.

### **3. Comments on applicant's responses to written questions**

#### **3.1 Air Quality and Emissions**

- 3.1.1 In response to the applicant's answer to questions 1.2 (*site specific plans*), the council considers that site specific air quality management plans need to be secured by site specific requirements and for the approval of the local planning authority. There are specific local area variations in air quality requirements and impacts, and it is therefore important that site specific plans taken these into account.
- 3.1.2 Similarly, the Construction Environmental Management Plan for each site needs to be submitted, via a requirement, for the approval of the local planning authority. This is a key document for how the construction works will be implemented and strikes to the heart of many of the issues being considered in the examination of the application. The amount of information to be included in this document and considered by the local planning authority is significant and it should be submitted via a clear site specific requirement rather than just be included in the CoCP.
- 3.1.3 Further to the applicant's answer to question 1.3 (*dust monitoring*), it is essential that suitable monitoring regimes are in place, and that measures which are likely to be required to mitigate any unpredicted impacts, or breaches of agreed management plans and levels are agreed with the local planning authority prior to the commencement of construction works. These should not be left to when the breach has occurred.
- 3.1.4 In response to the applicant's answer to question 1.9 (*ventilation stacks*), it is unclear that the proposed new residential properties, which have planning permission and are expected to be constructed at Chambers Wharf following the Thames Tunnel works, have been fully taken into account in respect of the dispersion of the fumes from the ventilation shafts. Due to the proximity of these new properties the dispersion from the ventilation stack could have significant impacts. This needs to be clarified by the applicant.
- 3.1.5 A ventilation shaft is shown in the works at Shad Thames Pumping Station but no details have been provided of the dispersion from this shaft and how impacts will be avoided to neighbouring properties (it is not included within Table 10.1 of the applicant's written answers). The council is concerned that it may not be terminating at the correct height to avoid impacts. Located within the Conservation Area, it is important that this matter is clarified by the applicant prior to the grant of development consent, as there may be conflicts between the required height of the shaft for dispersal and visual impacts upon the character and appearance of the conservation area.
- 3.1.6 The council's full assessment of the impacts from air quality is included in its Local Impact Report within the respective chapters for each site.

#### **3.2 Biodiversity, Biological Environment & Ecology**

- 3.2.1 The council refers to its comments made in its Local Impact Report on the measures required to control and mitigate the biodiversity and ecological impacts of the proposals. With reference to the applicant's written responses to questions 2.4, 2.5 & 2.6 on piling techniques, the council also reiterates the

point that low noise/vibration piling techniques are essential in order to safeguard local amenities (including the living conditions of residents and the learning environment of school children) as well as to limit impacts on fish.

### **3.3 Coastal / River Change**

3.3.1 Further to the applicant's written answer to question 3.8 (dredging methodologies) the council considers that, at Chambers Wharf, due to the proximity to residential properties and house boats, a detailed methodology for dredging, including measures to prevent disturbance to residential properties and house boats, must be submitted for the approval of the local planning authority prior to the commencement of the works.

3.3.2 It is also noted that in paragraph 8.5.2 of its written answers, the applicant states that the final design of the coffer dam will be *the responsibility of the contractor*. Details of this design and a detailed methodology for its construction therefore needs to be submitted for the approval of the local planning authority (in consultation with the Environment Agency and the Port of London Authority) prior to its construction commencing, in order to ensure that impacts are controlled and mitigated, including those impacts on local amenities and highway conditions.

### **3.4 Compulsory Acquisition and Related Matters**

3.4.1 The Council has already commented in its response to the written questions on the need for adequate limits on the very wide powers of temporary possession and occupation provided for in the draft Development Consent Order. The Council therefore supports the oral submissions of other local authorities, including City of London Corporation, relating to the assessment of whether these powers amount to compulsory acquisition and therefore ought to be subject to the procedural safeguards that accompany CA. The Council reserves its right to make further submissions on this point following review of the submissions of those other local authorities.

### **3.5 Design, Landscape and Visual Impact**

3.5.1 Further to the applicant's response to question 5.4 (column design) the council supports the need for the detailed design of the ventilation column to be for the approval of the local planning authority. At Chambers Wharf, this is particularly important given both the prominent siting of the column adjacent to the River Thames (it will appear in some local views looking towards Tower Bridge) and its proximity to the approved residential dwellings which are expected to be constructed following the completion of the Thames Tunnel works (the permission for which will remain extant due to the implementation of the planning permission through the construction of the dwellings on the south side of Chambers Street which form part of the same planning permission). Similarly, the precise details of all the permanent works (including the shaft and site restoration/landscaping works) will need to be submitted for approval to the local planning authority to ensure compatibility with the permitted residential development.

3.5.2 As stated in the council's Local Impact Report, and in oral evidence given at the Issue Specific Hearing on 27<sup>th</sup> November 2013, several other aspects of the final design of the works will also require submission for the approval of the local planning authority prior to the commencement of the works. At Shad Thames, for example, whilst the design principles provide a useful framework of code for the permanent works, the precise details of the built works and alterations to the existing pumping station need further approval of the local planning authority given the building's location in the Conservation Area and its close proximity to adjacent residential properties, both of which may be detrimentally affected.

### **3.6 *Development Consent Order Drafting and Related Matters***

3.6.1 Again, we make comments here only where they go beyond the comments already submitted on the DCO and related matters in our Written Representation (1.9 and 9 and Appendix 8) and our answers to written questions.

3.6.2 With regard to the applicant's response on definition of 'maintain' (6.9):

(a) there are a number of references to matters such as an intention to apply it only to associated development, commitments in the Environmental Statement and the like but at no place are these matters properly secured in the draft DCO;

(b) the reference to the effect of the definition being restricted by the definition of authorised project only stands up if you accept that Article 5 cannot go beyond the effect of Article 3. This is simply not clear on the face of the draft DCO.

(c) in any event, even within the confines of the definition of authorised project, the definition is too wide. The examples of each term within the definition are just examples of what it could cover for the purposes of the project. Instead the applicant should show how each terms will not cover matters which go beyond the project and the ordinary meaning of maintain. The response in relation to "clear" is the best example of this. The comment that sewers require to be cleared ignores the fact that clear could be applied with a much wider meaning, e.g. to require clearance of the constructed project at a site, with no need for planning permission.

(d) With 'maintain' and 'maintenance' peppered throughout the draft DCO, including extremely wide temporary possession powers within and beyond the Order limits, it is absolutely essential that the definition is kept to what is truly required for the purposes of delivering project while still retaining adequate local control over development over the life of the operation of the project that could have significant impacts on its surroundings.

3.6.3 Article 7 and the disapplication of proceedings for statutory nuisance was the subject of some discussion at the 26th November hearing and the Council maintains its position as set out in previous submissions. For clarity, the Council objects to what should be Article 7(1)(c) on the basis that practically anything could be traced back to complying with a requirement of the Order. The position would be different if this related only to compliance with a specific requirement imposing a specific noise level. Also what should be

Article 7(1)(d) is unacceptable because it dilutes the qualification that the applicant already benefits from under the statutory nuisance regime of "best practicable means". The meaning of that phrase has been subject to considerable development over the years and given the paramount importance of noise impacts for the Council on this project, there is simply no justification for moving away from that existing protection for the applicant, whether or not the provision is contained in the model provisions.

3.6.4 In relation to the streets and highways provisions of the draft DCO:

- (a) The Council endorses the submissions of TfL, with the addition that as well as the London Permit Scheme applying generally to the streets and highway provisions, the New Roads and Street Works Act Code of Practice also ought to apply. In particular the Council would emphasise the need for local highways authority consent, not just consultation. The local highways authority ought to have the power of co-ordination of works to enable proper functioning of the highway network. The applicant's assertion that it simply gives notice of all works and takes priority over all other projects is wholly unreasonable. A mechanism for ensuring co-ordination is required.;
- (b) Article 10(4) in the comparative version of the DCO should also make clear to what works and in what locations the undertaker should qualify as highway authority;
- (c) temporary stopping up in Article 15 should be subject to the consent of the local highway authority whether within the Order limits or not. Reasonable vehicular and delivery access also ought to be allowed given the residential and commercial character of the area.

3.6.5 The applicant has given no explanation of the effect of the incidental powers referred to in Article 24 by comparison to the powers in the draft DCO, nor has it explained why certain restrictions - for example periods of notice - that would apply for certain kinds of works under the Water Industry Act provisions cannot apply for the purposes of similar works under the draft DCO. The applicant emphasised that the reason for Article 24 was to bring everything together under the draft DCO but in fact it does the opposite, directing the reader to another inconsistent procedure for carrying out works which is not clear from the face of the Order. The applicant ought to give a better explanation of the reasons for this. Without that explanation, it appears that the applicant is simply taking as wide powers as possible and in many cases, using that as a way to avoid having to develop its thinking and strategy in sufficient detail now.

3.6.6 The same points apply regarding the taking of powers of temporary use in Articles 34 and 35. As things stand, these articles give the appearance of being used to avoid developing the design and strategy for the project further at this stage, and take wide powers to enable whatever works the applicant deigns to do, with little or no protection for those who might be affected by them.

3.6.7 The same can be said, of course, for the current drafting of the street and highways provisions. Generally speaking the Order give the appearance of "Henry VIII" legislation, but without the public law and democratic controls that might apply to a Secretary of State who might normally be empowered by these kinds of provisions, given that the beneficiary is a private company.

- 3.6.8 Safeguarding provisions in Article 51 ought to be subject to provision for exempt applications, which under the current direction apply to not just works under the ground but alterations to existing buildings or changes in use of buildings or land. The Council also assumes that the existing safeguarding direction will be repealed by the DCO when it is made.
- 3.6.9 TfL raised the question of blight provisions. The applicant ought to explain precisely how the normal blight provisions apply in relation the draft DCO and the project. If they do not apply, the applicant should explain how the persons that would otherwise benefit from their provisions would receive equivalent protection
- 3.6.10 The effects of Article 56 ought to be clarified, in order that its effect on local legislation is clear within the explicit terms of the DCO. As matters currently stand, the reference to "remedial or other action" in Article 56(2) in the comparite draft could apply to an extremely wide category of actions, without specifying what that action affects, and where. Similarly the use of "might" in Article 56(2)(c) is of extremely wide application and might operate to frustrate actions under local legislation where conflict with the Order is no more than a small possibility.

#### *Schedule 3 Requirements*

In addition to the points already made in our Local Impact Report:

#### 3.6.11 (Question 6.60 – bodies for discharge)

**a) Highways:** The council considers that requirements relating to the approval of details of highways matters should be determined by the local planning authority rather than the local highway authority. There are two reasons for this:

- i) Firstly, it is sensible for coordination purposes that all requirements requiring approval of further details are submitted and determined at a single point. It is common place for highway conditions to be determined by the local planning authority, in consultation with the highway authority. This works well on major planning applications.
- ii) Secondly, there may be instances where there are wider environmental considerations to take into account when determining the acceptability of highway alterations. For example, there may be implications affecting landscaping, public realm and amenity interests which also need to be taken into consideration when determining the acceptability of highway works or alterations. The local planning authority is best placed to make this decision in consultation with the highway authority, as it would do for a planning application.

**b) Works in the River:** As well as waterway implications, details of works in the river may also have amenity implications from noise and/or vibration affecting adjacent residential properties (Chambers Wharf for example). There may also be archaeological implications. Therefore, relevant requirements for works in the river should be for the approval of the local planning authority, in consultation with the PLA and ES.

#### 3.6.12 (Question 6.66 – deemed consent)

The applicant has confirmed that it will remove deemed consent from the relevant part of the DCO. This is supported by the council.

#### 3.6.13 (Questions 6.67 & 68 - timescales)

The council considers that 8 weeks for both minor and major requirement discharge applications is realistic, subject to extensions being able to be agreed in writing where necessary. This is particularly the case given the ambiguity between what is a major or minor application, and the fact that seemingly 'minor' applications may still be relatively complex. Consultation, both internal and external, along with possible notification of local residents and other interest groups will also be necessary in some circumstances.

Pre-application discussions with statutory consultees and local residents should take place. From experience, problems occur where information required has not been provided up front, and therefore this should be agreed in advance. Planning performance agreements or Memoranda of Understanding should be agreed between the applicant and Local Authorities to deal with the process and funding of the discharge of requirements.

#### 3.6.14 (Question 6.69 - fees)

The charging schedule set out by the applicant is not appropriate for the type of requirements that will need to be discharged by the local authority for this project and does not reflect the work that will be involved in order to efficiently deal with the applications. A separate system of payments should be agreed, that is proportionate to the work required, through a planning performance agreement (or an appropriately worded memorandum of understanding between the council and the applicant).

#### 3.6.15 (Question 6.70 - repayment)

Adequate justification has not been provided by the applicant for why fees should be repaid if the application is deemed to be invalidly made. Local Authorities still incur a cost in checking applications and the onus should be on the applicant to ensure that their application contains all the necessary information. Pre-application discussions with the local authority and key consultees and prior agreement on the type and form of information that is required will reduce the risk of applications being made invalid. This could also be covered by a Planning Performance Agreement.

#### 3.6.16 (Question 6.71 - appeals)

The Council considers that the normal appeals procedure under the Town and Country Planning legislation is appropriate for any appeal following refusal of approval for the discharge of requirements. In cases where applications are refused, the preferable way forward would be for the applicant to discuss a revised submission with the local authority and relevant consultees in order to seek to overcome the reasons for refusal.

#### *Code of Construction Practice (Questions 6.73 to 6.79)*

#### 3.6.17 The contents of the CoCP (Part B) including any future revision needs to be for the approval of the relevant Local Planning Authority.

3.6.18 The council is in discussions with the applicant on the content of the CoCP. There are several areas where the content of the CoCP needs to be made more precise with additional detail and specification required. In particular more needs to be done to ensure that the undertaker under the DCO is obliged to enforce the CoCP against its contractor, and the contractor against its sub contractors. It is not appropriate for matters to be left for the judgement of the contractor. In many instances, there are issues arising from the CoCP where further details need to be submitted to the local planning authority by way of a requirement. Those specific matters should be included as requirements in the same way as the applicant acknowledged at hearings should apply to specific design requirements in the Design Principles. The Council will be producing a mark up of the CoCP for discussion with the applicant in the near future.

#### Design Principles (**Questions 6.80 to 6.81**)

3.6.19 Whilst the design principles provide a useful framework of code for the permanent works, the precise details of built works and alterations to existing buildings need further approval of the local planning authority rather than. This is particularly the case where buildings are located within a Conservation Area and/or are in close proximity to adjacent residential properties (Shad Thames for example).

### **3.7 Flood Risk and Climate Change**

3.7.1 No comments at this time, though the council may wish to comment on the responses from the Environment Agency in relation to these questions.

### **3.8 Historic Environment**

3.8.1 The applicant's response to question 8.1 (*site specific evaluation*) includes no answer to the question whether the work will be undertaken pre-determination as recommended by the Waste Water Policy Statement. Southwark Council, the City Archaeologist and the Greater London Archaeology Advisory Service are in discussions with Thames Water concerning possible techniques. A draft Site Specific Written Scheme of Investigation (SSWSI) for Greenwich Pumping station has been circulated already.

3.8.2 In relation to managing the process for SSWSIs, in response to question 8.2 (*site specific schemes*), it is assumed and requested that this would be undertaken in accordance with requirements and regular monitoring visits by the archaeologist for the area, whether Southwark, the City or GLAAS.

3.8.3 In response to question 8.2 (*processes to secure appropriate action*), the answer to this question is to undertake a suitable level of pre-determination evaluation work to identify assets worthy of preservation in situ and design the scheme accordingly. There are large areas of this project, for example, at Chambers Wharf where the assessment has identified assets of medium to high significance. These should be evaluated in the field by trial trenching. Should assets worthy of preservation in situ be identified where shafts are to be located there is no possibility of preservation in situ. This is why standard archaeological practice since the issue of PPG16 in 1990 has been to

undertake archaeological evaluations in advance of the determination of applications. This is also the advice in the Waste Water planning statement, and it has been the consistent advice from Southwark Council that the applicants should follow the policy advice for waste water and evaluate at Chambers Wharf. The response to simply mitigate is inadequate.

### **3.9 Land Use Including Regeneration and Open Space**

- 3.9.1 No comments on the answers provided by the applicant as these answers do not affect sites in or adjacent to the London Borough of Southwark.

### **3.10 Local Impact Reports**

- 3.10.1 The London Borough of Southwark's Local Impact Report was submitted on 4<sup>th</sup> November 2013.

### **3.11 Noise and Disturbance**

- 3.11.1 In the applicant's response to question 11.5 (*peak noise levels*) table 5.34 does not consider Riverside Primary Schools in the context of 'peak' noise levels and the number of incidences that will be experienced. The council has raised objection in its Local Impact Report and in oral evidence at hearings concerning the impacts from noise that will result upon the learning conditions of children at this school.
- 3.11.2 The assessment provided by the application in its response to question 11.6 (*total noise levels for schools*) for the impact at Riverside Primary School relates to construction noise only, and therefore does not take account of the combined impacts of construction plant noise and construction traffic noise. The access road for construction traffic is immediately adjacent to the school.
- 3.11.3 In the applicant's response to question 11.15 (*table of residential receptors*) table 15.16 (Shad Thames) identifies that internal noise levels would be 'well above' the BS8233 guidance of 40dBLAeq for living rooms for a period of 1 month at dwellings in Tamarind Court (front) and Coriander Court. It also identifies that, at these receptors, the guidance value would be exceeded during 'non-worst case periods'. A review of ES Volume 19 Appendix G Plates G.9 and G.10 indicates this to be the case for the entire construction period (18 months). It does not suggest that these receptors are eligible for Noise Insulation, although para. 9.8.3 of the ES Volume 19, Chapter 9 does suggest that they may be eligible. There is also no indication of whether any dwellings within these buildings are single aspect.
- 3.11.4 Also in the applicant's response to question 11.15, table 15.17 (Chambers Wharf) recognises that Luna House would be eligible for Noise Insulation, but the applicant does not demonstrate that this is likely to be practicable given the building's design. The council does not consider that noise insulation is practicable at this building.
- 3.11.5 In the applicant's response to question 11.18 (Building Bulletin 93 –Acoustic Design of Schools) no consideration is given to the potential noise impacts on Riverside Primary School of HGV movements on Bevington Street, or the

possibilities for mitigation thereof. As identified above, the assessment considers noise from site plant and HGV traffic separately, whereas the effects on Riverside Primary School will be in-combination. The effects from construction traffic will be increased further should the amount of materials transported by barge be reduced by just a small amount.

- 3.11.6 In the applicant's response to question 11.34 (*assessment of no-significant impact*) the applicant identifies (34.1.10) that, for a period of 2 months, significant noise effects would occur at Axis Court. It is asserted that keeping windows closed during these periods would be sufficient to control noise impacts, but there is no recognition that some of the affected dwellings are single aspect or dual aspect (with both aspects affected by construction noise). Furthermore, the findings of our independent assessment (Bureau Veritas' report 7825373-09, November 2013) indicate that the actual duration of significant effects is likely to be greater (approx. 22 months, including night-time effects) than presented in the ES Volume 20, Chapter 9.

### **3.12 Other Matters**

- 3.12.1 In response to question 12.1 (mitigation) the applicant refers to its *Mitigation Route Map*. The council is using this document in its ongoing review, and discussions with the application, of how mitigation will be properly secured should development consent be granted. In general terms, there are several elements of mitigation that need to be secured directly through a requirement than being only included in the Code of Construction Practice. This is particularly the case for aspects of the proposals where further details need to be submitted to the local planning authority for its approval, or where there are restrictions, limits and controls required which strike to the heart of the main issues being considered in the examination of the application.

- 3.12.2 Following further consideration and discussions with the applicant, the council will make further written submission on how mitigation needs to be secured by the 13<sup>th</sup> January 2014 deadline, including a revised Statement of Common Ground.

### **3.13 Policy**

- 3.13.1 The council has set out the policy context for the proposals, including the relevant Development Plan policies, in its Local Impact Report.

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### **3.14 Rationale for the Selection of Work Sites and Drive Strategies**

#### *Methodology for the assessment of site suitability (Questions 14.1 to 14.7)*

- 3.14.1 The applicant's responses to questions 14.1 to 14.7 seek to provide further information and clarification on the methodology for the assessment of site suitability. The council has previously set out, in section 5 of its Written Representation, its significant concerns over the site selection methodology used by the applicant to identify their preferred sites which has resulted in the wrong site being chosen to drive the tunnel between Chambers Wharf and Abbey Mills.
- 3.14.2 Firstly, the council considers that the information made available concerning the site selection process has not been sufficient to allow either the council or residents to come to an informed view on the site selection process. Information both on methodology used to balance impacts against benefits in the site selection process impacts and on the impacts themselves has been inadequate. This means that neither the council nor residents have been able to properly engage in the process during the important pre-application stages. The lack of appropriate information during the pre-application stages and within the application itself has resulted in a flawed and inadequate site selection.
- 3.14.3 Secondly, the methodology used to select the preferred sites was far from clear and there was no attempt to use an appropriate weighting mechanism to compare shortlisted sites and evaluate impacts which in turn would inform the sequential approach to site selection. The council urged Thames Water to reconsider the selection of sites using a systematic and transparent mechanism for assessing the impacts.
- 3.14.4 In response to the Examining Authority's written questions on the methodology for the assessment of site suitability the applicant has presented no new relevant information that addresses the concerns set out in the council's written representation. Thames Water refer back to the Final Report on Site Selection Methodology (doc ref 7.05) which fails to demonstrate how the significant negative impacts on residents, businesses and schools close to Chambers Wharf were balanced against impacts at Abbey Mills. Neither robust details nor a quantifiable system of how the relevant factors were weighted against each other have been provided.
- 3.14.5 For example, the Final Report on Site Selection process, Volume 23 (Doc ref 7.05) shows that during the phase one consultation Abbey Mills was considered as "suitable" in terms of engineering and planning and "suitable" in terms of environment in relation to archaeology, built heritage and townscape, water resources, ecology, flood risk, air quality and noise and "less suitable" in relation to road transport and land quality. Table 5.1, in Thames Water's response to the ExA's first written questions and requests for information (Doc Ref APP14) shows the final assessment of Abbey Mills as a main drive site to be "less suitable" in terms of engineering, planning and the environment. The council considers that insufficient detail has been provided to demonstrate why this assessment was changed.
- 3.14.6 Thames Water refer to the engineering options report and discussions at the multidisciplinary workshops for which no minutes have been provided.

3.14.7 Paragraph 3.4.10 of the Final Report of Site Selection Process (Volume 18) sets out the key reasons for selecting drive option C, i.e. to drive the eastern section of the main tunnel from Chambers Wharf to Abbey Mills Pumping Station and the drive the connection tunnel to from Greenwich pumping station to Chambers Wharf.

The reasons given by the applicant are that:

- a. Further technical work and discussions with the Lee Tunnel project team showed that transporting materials to and from the site by the River Lee and Bow Creek was at worst not feasible and at best highly undesirable.
- b. At Chambers Wharf, 1,500 tonne or potentially larger barges could be used on the River Thames to remove excavated material produced by the main tunnel drive site, whereas at Abbey Mills Pumping Station there were more constraints in using Bow Creek to remove excavated material due to the fact that only small 350 tonne barges could be used during a short tidal window. Even smaller barges were used for the Lee Tunnel project. Having smaller capacity barges increases the number required, which would add considerable complexity and risk.
- c. Using Chambers Wharf as the main tunnel drive site would avoid the need to construct campshed and wharf facilities in Channelsea river, which would avoid the potential health and safety risks associated with moving the contaminated materials in the river bed. It would mean less impact on the foreshore ecology and water resources at Abbey Mills.
- d. Driving the connection tunnel from Greenwich would mean that the main tunnel could be driven from Chambers Wharf, which would allow excavated materials from the larger main tunnel to be removed by river.

3.14.8 With regard to point a) the council has received no further information to date on the “discussion with the Lee Tunnel project team”. Abbey Mills was Thames Waters’ own preferred drive site during phase one consultation, Thames Water have not demonstrated that transporting materials to and from the site by the River Lee is “not feasible.” Indeed, recent discussions held between the PLA, Thames Water and LBS have concluded that it is possible to use 4 x 350 tonne barges on the River Lee per day, which would amount to almost 70% of the total excavated material needed to be removed from the site.

3.14.9 With respect to point b, Thames Water has offered no detailed information on the comparative impacts of using barges at Chambers Wharf and Abbey Mills. They also failed to demonstrate through the site selection process how the use of barges outweighs the other factors considered through the site selection methodology including but not limited to the impact on residential amenity and schools at Chambers Wharf.

3.14.10 In regards to point c, no evidence has been provided to demonstrate that construction of the campshed and wharf facilities would give rise to any potential health and safety risks that could not be appropriately mitigated against or to compare those impacts against those of the proposed cofferdam construction at Chambers Wharf.

3.14.11 Point d simply restates point b.

- 3.14.12 In summary, the applicant's responses to questions 14.1 to 14.7 show that there is no further information available on the basis for selecting Chambers Wharf because there was simply no proper methodology applied to that decision. Only now is relevant information coming to light to allow proper assessment of the options; this information should have been examined by Thames and made available to consultees at pre-application, not examination stage.
- 3.14.13 The fact that some of the views reached - e.g. as to feasibility of barges at Abbey Mills - are already being proved inaccurate shows how that process has resulted in poor decisions. What methodology was applied seems to have amounted to an irrational 'feel' of what is best on balance, without actually testing that decision methodically to assess whether it truly stands up. If the issues are as finely balanced as the applicant claims, it is all the more essential to compare them rigorously. This lack of rigour has resulted in the wrong decision on drive direction. LBS considers that the impacts of using Chambers Wharf as a drive site cannot be mitigated and it would be necessary to continue to drive the connection tunnel from Greenwich to Chambers Wharf to avoid significant adverse impacts on our residents, businesses and schools.
- 3.14.13 LBS considers that the impacts of using Chambers Wharf as a drive site cannot be mitigated and it would be necessary to continue to drive the connection tunnel from Greenwich to Chambers Wharf to avoid significant adverse impacts on our residents, businesses and schools.

*Comparison between Chambers Wharf and Abbey Mills (Question 14.25)*

- 3.14.14 The council has previously set out its comparative assessment of the merits of Chambers Wharf and Abbey Mills as drive sites in section 7 of its Written Representation. Further oral evidence was given at the Issue Specific Hearing on 12<sup>th</sup> November 2013 and summarised in writing on 26th November 2013.
- 3.14.15 The applicant's response to question 14.25 concludes that Chambers Wharf's superior river access remains an important factor and that, on balance, Chambers Wharf as a main tunnel drive site remains the preferred option. The council considers this assessment is flawed. It has been proven and since agreed that Abbey Mills is capable of operating four 350 tonne barges per day which would amount to almost 70% of the total excavated material. Further comments on the feasibility for barge access at Abbey Mills are set out below in the response to the applicant's answer to question 14.29.
- 3.14.16 The applicant overplays the risk of using barges at Abbey Mills and the council maintains that, even if there are some occasions where four barges cannot access the site, there is opportunity for some of the excavated material to be removed by road with only limited impacts, such impacts being far less than would occur upon residential properties and schools at Chambers Wharf. The applicant's conclusion in paragraph 25.1.8 that the use of Abbey Mills as a drive site would result in greater impacts on local amenity than at Chambers Wharf is unquantified and plainly wrong.
- 3.14.17 Whilst Chambers Wharf clearly offers good accessibility for barges, the council strongly disagrees with the applicant's conclusion that this factor outweighs the significant harm that would result in the locality of Chambers

Wharf. These impacts are contrary to several policy objectives which seek to protect the local environment as set out in the NPS. There is clearly a superior alternative at Abbey Mills, which has not been properly considered by the applicant, and which would allow the project to proceed whilst resulting in far reduced impacts on the surrounding area, both in terms of the number of receptors and the magnitude of the impacts. In the council's opinion, this is not an 'on-balance' issue, rather the impacts at Chambers Wharf are wholly unacceptable and not capable of mitigation. This is further emphasised by the fact that the use of Abbey Mills as a drive site is clearly a better alternative to Chambers Wharf.

- 3.14.18 The council is particularly concerned at the impacts from noise and vibration from the use of Chambers Wharf as a drive site and does not consider that the applicant has given sufficient weight to these impacts in both its response to question 14.25 and in the main application documents. It is relevant to note here that at the Issue Specific Hearing on 12<sup>th</sup> November, Rupert Taylor, giving evidence for Save Your Riverside stated that *he can't recall a proposal with such severe proximity that has survived scrutiny*. A summary table of the Council's conclusions on noise and vibration impacts is set out below:

**Summary of Noise impacts at Chambers Wharf as a Drive Site:**

<b><i>Methodology</i></b>
<ul style="list-style-type: none"> <li>○ Bureau Veritas (BV) noted apparent variability in the baseline measurements used for noise and vibration by Thames.</li> <li>○ BV also assessed that use of a singular criterion of 70dB for significance of impact allows for more accurate comparison of impacts between Chambers Wharf and Abbey Mills</li> <li>○ This 70dB singular criterion methodology used by BV provides a conservative assessment of impacts. Were Thames' thresholds for significance applied to BV's results, further significant impacts would be found.</li> <li>○ Even with this conservative assessment methodology, BV found a number of significant and unacceptable impacts.</li> </ul>
<b><i>Impacts of using CW as a drive site are wholly unacceptable</i></b>
<b><i>Residential</i></b>
<ul style="list-style-type: none"> <li>○ BV has identified approximately 232 dwellings within 40m of the Chambers Wharf site boundary, plus St Michaels College and office accommodation. Riverside Primary School is just 50m from the site boundary.</li> <li>○ In the ES Vol 20 Table 9.5.1, TW acknowledge that, based on their predictions, residential properties at Luna House and Axis Court will be exposed to significant noise impacts for a period of 29 months.</li> <li>○ In addition, BV predictions, based on the ES Vol 20 Ch 9, indicate significant <b>noise</b> impacts to residential receptors: <ul style="list-style-type: none"> <li>• 208 dwellings (including 47 that are single aspect) during</li> </ul> </li> </ul>

demolition (day, 1 month);

- 47 dwellings during cofferdam construction (day, 7 months);
  - 204 dwellings (including 47 that are single aspect) during shaft construction (night, 4 months).
  - A further 2 dwellings at 210-212 Bermondsey Wall East during shaft construction (day, 14 months).
- Potential to **mitigate** noise impacts through improved sound insulation to apartments is limited at properties overlooking the Chambers Wharf site. This would result in non-openable windows for 7 months (day) or 4 months (night).
  - Significant **vibration** impacts at 54 dwellings associated with piling during cofferdam construction (7 months), and 'possible' effects at a further 68 dwellings over the same period (ES Vol 20 Table 9.5.5).

#### *Schools*

- BV predictions, based on the ES Vol 20 Ch 9, indicate significant noise impacts to Riverside Primary School during demolition (day, 1 month), cofferdam construction (day, 7 months), and road traffic on Chambers St and Bevington St, where modular buildings with less sound attenuation and housing entry and some special needs classes immediately front the street, (day, 4 years).
- BV predictions, based on the ES Vol 20 Ch 9, indicate significant noise impacts to St Michaels College during demolition (day, 1 month).

#### *Tempus Wharf*

- BV predictions, based on the ES Vol 20 Ch 9, indicate significant noise impacts to Tempus Wharf (office) during demolition (day, 1 month), cofferdam construction (day, 7 months) when windows open (no air-conditioning).

*Construction traffic*

- Calculation in the ES Vol. 20 Ch 9 Table 9.5.3 is flawed (it was subsequently confirmed by Mr Humphries QC, on behalf of TW, that this data, as presented, may be incorrect). It suggests a reduction in HGV numbers with the development. Using the correct number, there is a significant noise impact on receptors on Chambers Street (90% by river) (day, approx. 22 months). If this reduces by only 2% to 88% by river, noise impacts are significant on Chambers St and also Bevington St (and 88% of materials transportation by river from Chambers Wharf is indicated by TW in their response to ExA Qu. 16.3 Table 3.1).
- TW response to ExA Qu. 14.25 (para 25.9.41) suggests there are approx. 38 residential properties along Bevington Street. This does not include properties on Chambers Street (inc new properties under construction) with view of site entrance.

*In combination effects*

- There is no assessment in the ES of in-combination effects of construction and traffic noise at Chambers Wharf.

3.14.19 **Transport & Highway Impacts:** The applicant's assessment has also not properly assessed the transport and highway impacts at Chambers Wharf as a drive site. These are summarised in the table below:

**Transportation Impacts at Chambers Wharf as a Drive Site:**

**1) Transport context**

- The area surrounding the site is predominantly residential in nature and it is estimated that in 2011 there were approximately 3,824 people living within a 400 metre distance of the proposed site [Southwark Local Impact Report, 3.7.14, p.35].
- There are also four schools within the same radius all of which have a high proportion of children walking to school along safe, quiet streets.
- The Thames Path runs along Chambers Street, as does National Cycle Route 4. The Mayor of London is proposing that the riverside route through the area becomes part of a new London-wide network of 'Quietway' cycle routes.
- Access to the area for motor vehicles is restricted to discourage through traffic and the whole area is included within a 20mph zone. Large vehicles are a rarity.
- The impacts of a drive site at Chambers Wharf would cause significant disruption to thousands of residents, including school children and would disrupt a key sustainable travel corridor through the riverside area.

## **2) Traffic impacts**

- Under the planned drive site scenario for Chambers Wharf a peak of 110 heavy goods vehicle movements per day would be introduced to this environment. In the 'worst case' scenario examined by the TA this number would increase to 570 [LIR 3.7.15, p.35].
- Under this scenario the 11 HGV movements generated by the site per hour equates to 8% more traffic in the AM peak on Chambers Street and an 11% increase on Bevington Street. Off peak these percentages are significantly higher and this is also the case at weekends when general traffic levels are lower.
- The main junction impacted by the proposals (A200 Jamaica Road / Bevington Street) is currently severely over capacity. Practical Reserve Capacity (PRC) is at minus 23% in the AM peak and therefore additional traffic generated by the site cannot be accommodated without causing significant additional delay.
- HGV movements would coincide with 'school run' times exposing large numbers of children to the danger posed by large vehicles. No adequate mitigation is proposed.
- Any period of 'all by road' operation at Chambers Wharf would place an intolerable strain on local streets, effectively extending the construction site beyond its narrow boundaries, with a constant stream of HGVs – one per minute [570 per day] – backed up on local roads.
- The presence of large numbers of heavy good vehicles in the Chambers Wharf area would distort the planned function of the local highway network. Any prolonged period of 'all by road' operation would be intolerable.

### 3) Transport Strategy

- The case for the use of Chambers Wharf as a drive site is based on the projection that much of the excavated material can be removed by barge. It is proposed that around 90% of such material across the whole project [88% at CW, Responses to first written questions, Table 3.1, p. 33] will be removed in this way.
- However, the emerging Transport Strategy does not provide sufficient reassurance that this target will be met. In fact, proposed derogations explicitly allow for the river transport to be discontinued in response to either 'operational' or 'exceptional' circumstances, presumably including where it becomes uneconomic to continue with barge transport [Securing the Transport Strategy - Presentation, Thames Water, 17/10/13, p.7]. There is also provision within the Strategy and the DCO to effectively remove the council's role as Highway Authority and reduce its role to that of consultee [LIR 7.73 – 7.76, p.160].
- The transport modelling carried out to investigate the impact of 'all by road' operation at Chambers Wharf assumes that this could only happen for one month in any period of 12 months, but there is nothing to substantiate that this will be the maximum in practice [LIR 7.28, p.154].
- Furthermore, the modelling work does not sufficiently explore the impact on the already congested strategic road network and the impact on other road users, particularly delay to bus passengers and the safety of cyclists [LIR 7.59, 7.56, p.158],
- Most concerning of all, there is no analysis of how the site will work in practice when river transport is not available [LIR 3.7.88, p.43]. We understand there is no room within the site for vehicles to wait and that 'just in time' arrival and departure is expected. How will this work when approximately a lorry a minute is arriving at or leaving the site? Surely in practice this will mean dozens of lorries queuing on local streets. As Highway Authority the council could not countenance such a scenario and continued site operation would be jeopardised.
- The use of Chambers Wharf as a drive site when river transport is not available will have a dramatic impact which has not been properly assessed.

3.14.20 **In-combination impacts:** For people living and learning around the site, the impacts are not felt on an individual basis, they are instead felt in combination with each other. The applicant has not properly considered, or given sufficient weight to the in-combination impacts of the proposed construction works at Chambers Wharf. The applicant has significantly underestimated the impacts of the construction works upon the day to day lives of people living, learning and working in the surrounding area. In particular:

- Noise and disturbance
- Highway safety and congestion
- Health and mental well being impacts
- Impacts on day and sunlight
- Air Quality
- Townscape impacts
- Impacts on Thames Path

- Impacts on open space

These would be significantly less at Abbey Mills should this become the drive site and the in-combination impacts at Chambers Wharf would also be radically reduced if this were amended to be a receptor site. Thames' failure to recognise this at the hearing is indicative of their failure to adequately assess in-combination effects, as is their general methodological approach to such effects (see [3.15.13] below).

*Comments on amended proposals to prevent night time barge movements*

3.14.21 Comments are provided below on the applicant's recent changes regarding barge movements at Chambers Wharf:

- The information provided states that the large vessels **could significantly reduce vessel movements**, but no indication of the number of residual night time barge movements has been provided. As noted in the Bureau Veritas report, a single barge movement in the night time would result in significant impacts.
- Disruption to river transport capacity would increase HGV movements. Only a marginal reduction in the material transported by river (from 90% to 88%) would result in significant noise impacts.
- The implications of any dredging would need to be addressed.
- Para 1.1.12 of APP 20 appears to assume there is significant space within the 3 sided enclosure to accommodate all derived material for the slurry treatment process. This needs to be confirmed and justified.
- Even should there be no night time barge movements, there is still much potential for noise from the movement and processing of spoil at night time. The excavated material will be in the form of a slurry. This will then be transferred to the slurry processing plant where the water will be separated. The final stage of this process is filter pressing where the water will be squeezed out (it is not totally dry but the water content is sufficiently reduced for transport and re-use). The resulting 'dry' cake is discharged from the plant in bays corresponding to the presses. The cake then needs to be collected (using a face shovel/loader) and tipped into a hopper (this is how it is done on the Lee Tunnel at Beckton). The hopper (essentially a funnel) is used to load a conveyor which would then pass the material onto the barges.
- There are consequent noise implications from this activity which may take place at night irrespective of there being no barge movements. As currently proposed the contractor has much flexibility as to how the operations will be arranged and managed potentially leading to further impacts upon surrounding properties. It would be beneficial, for example, if barge loading facilities were also acoustically enclosed but this it not proposed in the application.
- Finally, if barges are to be excluded at night the time restriction should be 20.00hrs at the latest in order to offer more meaningful mitigation.

*Chambers Wharf as a Receptor Site (Question 14.27)*

3.14.22 The impacts arising at Chambers Wharf from its use as a receptor site instead of a drive site would be significantly less than for its use as a Drive Site. A reduced site area would be needed and the site would be able to more comfortably accommodate the construction activities with consequently reduced impacts upon the surrounding area, and for a lesser period of time. The benefits in terms of noise and transport impacts are summarised below:

<b>Summary of Noise Benefits at Chambers Wharf as a Receptor Site</b>
<ul style="list-style-type: none"> <li>Minimal adverse noise effects (limited to one month during demolition works and marginal effects during 4 months of night-time secondary lining of the shaft) (TWUL response to ExA Qu. 14.25 Appendix Table A.9). BV assessment concurs.</li> </ul>
<ul style="list-style-type: none"> <li>Cofferdam construction (significant noise and vibration impacts (ES Vol 20 Ch 9)) reduced from 6 months to 3 months (TWUL response to ExA Qu. 14.27 (Table 27.1)).</li> </ul>
<ul style="list-style-type: none"> <li>Reduced noise level from river wall demolition due to increased separation distance to residential properties.</li> </ul>
<ul style="list-style-type: none"> <li>Duration of significant road traffic noise impacts on residential and school receptors on Chambers St and Bevington St from 22 months to 6 months.</li> </ul>
<ul style="list-style-type: none"> <li>There would be no significant noise impacts in the evening period, and at night, internal noise levels would not result in significant adverse effects.</li> </ul>

<b>Summary of Transport Benefits at Chambers Wharf as a Receptor Site</b>
<ul style="list-style-type: none"> <li>The use of Chambers Wharf as a receptor site would reduce impacts significantly, approximately halving the number of lorry movements required under the planned scenario (64,500 to 36,800) and reducing the number by 61% (190,506 to 74,140) under the 'all by road' scenario. While these impacts would remain significant, they are manageable with appropriate mitigation.</li> </ul>
<ul style="list-style-type: none"> <li>The applicant argues that the significance of the impact would remain unchanged, whether drive or receptor site, [TW responses to written questions, Q14, 25.10.22, P.429] but this is misleading. It is argued that shaft excavation would have to take place in either case and that this is the most significant impact. However, this analysis completely fails to consider the very significant reduction in impacts during tunnelling works. While a short period of significant disruption appears unavoidable in either scenario, there is no doubt that the overall impact of the use of Chambers Wharf as a receptor site would be significantly reduced.</li> </ul>
<ul style="list-style-type: none"> <li>The use of Chambers Wharf as a receptor site also significantly reduces the risk posed to the wider project by any period of all by road construction and the threat to continuous tunnelling that this would pose.</li> </ul>
<ul style="list-style-type: none"> <li>Chambers Wharf is not an appropriate location for a drive site, whereas the impact of the use of this location as a receptor site is likely to have more</li> </ul>

manageable impacts and pose less risk to the project as a whole.

*Abbey Mills as a Drive Site (Questions 14.28 & 14.30)*

3.14.23 From an operational and engineering perspective, it is acceptable and feasible for Abbey Mills to be amended to a drive site. No significant implications would result from construction noise at Abbey Mills for residential properties. The primary issue is how to transport the material off site (refer to the response to question 14.29 below). The impacts relating to noise and transport are summarised in the tables below with further details provided within section 7 of the council's Written Representation.

**Summary of Noise impacts at Abbey Mills as a Drive Site:**

<b>Impacts of using Abbey Mills as a drive site are substantially reduced by comparison to the impacts of using CW as a drive site</b>
<ul style="list-style-type: none"><li>• No significant noise effects of construction works from the Abbey Mills site (TWUL response to ExA Qu. 14.25 Appendix, para A.2.39).</li><li>• No significant vibration effects of construction works from the AM site due to increased separation distances, and no requirement for coffer dam construction (piling) (ES Vol 25 Ch 9).</li></ul>
<b>Impacts of using Abbey Mills as a drive site are not significantly greater than using it as a receptor site:</b>
<ul style="list-style-type: none"><li>• Nearest residential dwellings to AM site boundary are approximately 140m away (Crows Road).</li><li>• No significant plant noise/vibration impacts in either scenario (as presented in the ES Vol. 25 Chapter 9 (Reception) and BV Report, and as stated by TWUL in response to ExA Qu. 14.25 (para 25.7.43)).</li><li>• Even in the All By Road scenario BV calculations determine a road traffic noise change of +4.3dB which is equal to a medium magnitude effect on an absolute maximum of 74 properties along the Gay Rd/Abbey Lane during tunnelling - peak 14 months. Increase would be only +3.5dB with 33% by river. The 3 barge movements per day forecast by Thames could amount to 39% of materials being moved by river. Clearly the 4 movements now being proposed would result in further reductions in road traffic noise change.</li><li>• Properties are set at varying distances from Abbey Lane edge (typically 3 – 8m set back). The closest are typically non-sensitive (gable-end) uses. Traffic noise levels range from 61 – 66dB <math>L_{Aeq}</math> at these properties.<ul style="list-style-type: none"><li>○ Assuming 28dB <math>R_{tr}</math> for closed windows, internal noise levels would be 31-38dB <math>L_{Aeq}</math> internally. This achieves 'reasonable' rest criteria (40dB) in BS8233:1999.</li><li>○ At the Sure Start Children's Centre (set back 10m), the internal level would be 34dB <math>L_{Aeq}</math> with windows closed. This achieves recommended standard (35dB) in nursery rooms.</li></ul></li><li>• There would be daytime HGV movements only (08:00-18:00 Mon-Fri, 08:00-</li></ul>

13:00 Sat). In reference to Chambers Wharf, TWUL response to ExA Qu. 14.25 (para 25.9.36) states that residential receptors are “less sensitive during daytime, particularly in relation to noise”. The same applies for Abbey Mills.

- Shaft G will already have been constructed, resulting in no impact from shaft construction.

#### Summary of Transport Impacts at Abbey Mills as a Drive Site:

- Even if all the excavated material is removed by road, it can be achieved without adverse impacts resulting for highway capacity.

- There are comparatively low levels of pedestrian activity in the vicinity of the site in relation to Chambers Wharf.

- The route between the site and the A11 is approximately 390 metres however comparatively lower levels of pedestrian and cycle activity and spare junction capacity reduce the probability of severe impacts.

3.14.24 **Newham Representations:** At the Open Floor Hearing on 22<sup>nd</sup> November, the London Borough of Newham made oral representations on the impacts at Abbey Mills should the site be used as a Drive Site. These representations included reference to an existing planning permission for a new housing development for 1192 dwellings on Sugar House Lane, the argument being that when completed this would significantly increase the number of sensitive receptors next to the site to a level, similar or worse, to Chambers Wharf. The council has checked the details including location of this proposed development. Having done so, the council does not consider that the new development, if constructed, would be materially affected by construction works at Abbey Mills as a drive site. This is due to its location, with the edge of the proposed residential site being at least 200m from the edge of the Abbey Mills site, and at least 300m from the location of the shaft. This is in stark contrast to Chambers Wharf where over 350 dwellings will be located within 25m of the site boundary. The residential development would also not be materially affected by noise from construction traffic from Abbey Mills as a Drive Site as it is not located adjacent to the construction traffic route on Gay Road and Abbey Lane.

#### *Ability to transport waste by barge from Abbey Mills*

3.14.25 In response to **Q14.29** the applicant has provided an assessment of the ability to transport waste by barge from Abbey Mills, taking into consideration the tidal window. The Council's overall position on barging is set out in our summary of oral evidence dated 26th November. The following notes the Council's and Pell Frischmann's specific points on the responses to 14.29 in addition to that position, before going on to update the position following the meeting among PLA, the Council, Pell Frischmann and the applicant.

- 3.14.26 Similar material disposal via barge has been employed by TWUL for Lee Tunnel. It is surprising, then, that the applicant did not give more enough thought to barging even as a receptor site. The 4 berths now shown on drawing DCO-FQ-26X-ABMPS-142503 in Appendix 14.25.01 in response to the Council's representations provide a greater degree of flexibility for waterborne logistics than the arrangement shown within the DCO submission.
- 3.14.27 Within TW's responses to first written questions some element of logistics by river was again seen as feasible. It is however difficult to ascertain the amount from the figures provided but seemingly between 38% to 52% by river is seen as feasible, based upon their average rate of tunnelling.
- 3.14.27 In this Road/River option it should be noted that HGV nos. peak daily movements would be very similar as in table 26.3 under 25.7.49.
- 3.14.28 Dredging of Bow Creek would materially increase the tidal window and the council disagrees with the applicants point in paragraph 29.1.8. Taking the PLA advice on outbound movements to be made on the flood tide the council considers an increase of around 1 hr could be achieved which would enable two downstream trips.
- 3.14.29 With this dredging the layout for Abbey Mills drive site as suggested by TW, an extra tug and using assumptions of 1 barge per night offered in 29.7.12 we feel 5 barges per day could be achieved. This could equate to 10.500 tonnes/week - close to the 12,120 tonnes required to maintain 80m/week average tunnelling rate (86%).

*Summary of Meeting at Port of London Authority (28/11/2013)*

- 3.14.30 Further to evidence provided and subsequent discussion at the Issue Specific Hearing on 12<sup>th</sup> November 2013, a meeting was held on 28<sup>th</sup> November 2013 with the TTT team, the PLA and LBS regarding barging potential from Abbey Mills site using Bow Creek. A summary of outcomes is set out below:
- Upon the advice and experience of the PLA, dredging the Bow Creek along its length was accepted as being of limited merit due to limited increase in usable tidal window it would achieve. This is mainly due to the fact that within any navigational risk assessment, outbound movements of loaded barges should be made on the flood tide.
  - 350 tonne barges would be most appropriate for use given the navigational constraints along Bow Creek.
  - The berthing arrangement at Abbey Mills was discussed and it was agreed that 2 campsheds each of 2 barge capacity would be required to allow for safe manoeuvring and optimisation of tug and crew. This arrangement would allow 2 barges, each of which being towed by a tug, to access the site on each tide with the empty barges being left to be loaded over the tide and full barges being taken away.
  - The PLA considered that night time tides would be as acceptable as day tides ie 4 barges per day would be feasible.

- As the barges would be loaded over the tide, on campsheds, an 85% capacity of load would be regularly obtained. This would allow 8,330 tonnes per week via the river equating to 69% of spoil on an average tunnelling rate of 80m/week.

*Procedure for making amendments to the application*

- 3.14.31 The hearing on 15th November considered legal submissions on the procedure that would apply were amendments to be made to the application. During those submissions, the Examining Authority pointed parties to some points for further consideration and response. These were dealt with in large part in our summary of oral evidence submitted on 26th November. However we make the following additional points:
- 3.14.32 *The power of the Examining Authority or the Secretary of State to give an indication of its view of the application:* our position on this is as set out in the summary of oral evidence. In addition, in our opinion it may not be necessary for the Examining Authority to set out its view of the application. In requiring the submission of further information under Rule 17 it would be saying no more than that further information is required in order for it to properly assess the application in accordance with the National Policy Statement and in particular paragraph 2.6.34.
- 3.14.33 *Requests for extension of time period for examination:* there is no formal procedure set out in legislation for requesting an extension of time period. We understand that on other applications requests have been made by the Examining Authority (Brig y Cwm) and the applicant (Able Marine Park) but ultimately it is a matter for the Secretary of State and so in our analysis, the request could come from other sources too. The important point is that the Secretary of State can show that the decision is made in accordance with his public law duties.
- 3.14.34 *How much certainty would the Examining Authority require on the prospects of any separate application under the Town and Country Planning Act?* In addition to the comments made in the summary of oral evidence, the Council would point the Examining Authority to paragraph 3.7.9 of the NPS, which makes it clear that development consent should not be withheld unless there is good reason to believe that other consents will not be granted. We would suggest that the Examining Authority should take this as its starting point and adopt a similar approach to that set out in Advice Note 11 (page 6 and Annex). Ultimately the level of certainty required will depend on the circumstances surrounding the particular consent and its subject matter in the context of the overall project.

**3.15 Socio-Economic Impacts**

- 3.15.1 As mentioned throughout the Council's written and oral submissions, the application pays insufficient attention to in-combination effects. This can be seen in the approach taken in volume 2 of the Environmental Statement paragraph 3.8.4(a), where it is made clear that in-combination effects are 'inherent' within topic assessments and not given separate consideration. The

failure to approach a rigorous approach to in-combination effects results in their being understated.

- 3.15.2 **Open space:** With regards to the applicant's response to **Q15.3** (*impacts upon open space*), no mitigation is provided to mitigate against the impacts of the construction works on the open amenity space at the corner of Bevington Street and Chambers Street, adjacent to the Chambers Wharf site. The impacts upon this area of open space are set out in paragraphs 3.9.46 to 3.9.48 of the LIR.
- 3.15.3 **Schools:** The council considers that the applicant's inadequate response to **Q15.15** (*noise impacts upon schools at Chambers Wharf and illustrative layout plans*) highlights the importance of:
- a) The need for site layout plans to be submitted for the approval of the Borough Council for each of constructions phases, and
  - b) The need for further specificity and detail in the Code of Construction Practice.
- 3.15.4 The applicant's answer concludes that the assessments are only dependent on the illustrative plans to *a limited extent*, but it basis this on the CoCP, which the council considers does not provide the certainty, specificity or preciseness required to properly control impacts.
- 3.15.4 It also remains to be a significant concern that (in paragraph 15.1.2 of its written answers) the applicant is relying on three storey office buildings or equivalent to screen impacts from noise and vibration impacts). The council has provided evidence in paragraphs 3.9.40 to 3.9.45 of its LIR that the siting of office buildings in this location will result in unacceptable impacts on neighbouring residential properties through loss of sun/day light and overbearing visual appearance.
- 3.15.6 In its Day Light /Sun Light Assessment (Doc. 7.24) the applicant has appended a drawing (Fig 742/PL1-CAR11) showing reduced massing of the office building adjacent to the residential properties. However, the council considers this to be a contrived attempt at mitigation which will not overcome the objections raised and, at the very least, will still result in significantly adverse impacts for residents from overbearing impact for six years.
- 3.15.7 The council also does not agree that the former warehouse buildings should be used to set the base line for testing impacts. These buildings were demolished over five years ago. The base line in the assessment should be the existing situation.
- 3.15.8 This particular impact is indicative of the unsuitability of the Chambers Wharf site as a drive site, with there being insufficient room available on the site to arrange the construction works without detrimental impacts upon the sensitive receptors such as residential properties location adjoining the site. In contrast, these constraints do not apply at Abbey Mills, and were Chambers Wharf to become a receptor site there would be ample room for the any buildings to be located away from the site boundaries.
- 3.15.9 Further to the applicant's response to **Q15.16** (*noise monitoring at schools*) and **Q15.17** (*noise exceeding predicted noise levels*) the council considers that:

- a) Further detail of noise monitoring needs to be agreed with the council, and
- b) Precise details of mitigation need to be provided by the applicant and agreed in the event that noise levels exceed consented levels.

If mitigation is not provided now, a suitable requirement is needed for further predicted noise levels to be submitted to and approved by the council, along with necessary implementation measures to be agreed and implemented, prior to the commencement of construction works.

- 3.15.10 Cumulative noise impacts at Riverside Primary School over a long period (approximately 6 years) have not been sufficiently considered by the applicant and suitable mitigation has not been proposed. This is particularly relevant should the proposed target for transportation by river (90%) not be achieved in practice, with a single missed river export (1,500t barge) resulting in an additional 186no. 16t HGV movements on Bevington Street in a given day (based on 1,500t of material transported by road instead).
- 3.15.11 The applicant needs to be clear now on what mitigation will be provided should this occur. This cannot be left until the breaches occur and should not be a matter which relies upon the criminal enforcement of a s61 breach. Mitigation should be agreed and implemented prior to the commencement of works to cover future eventualities.

### **3.16 Traffic, Travel and Transportation**

- 3.16.1 The risks associated with river transport are acknowledged by TW (1.1.3 of Section 16 of Written Answers – Traffic, Travel and Transportation). Not least is the risk that there are currently neither the barges (1.3.78) nor tugs available (1.3.82). There are also issues with supply of adequately trained personnel. Not stated here, but TW have previously acknowledged that the market is not very competitive and there is a risk of being 'held to ransom'.
- 3.16.2 For Chambers Wharf the river % aspiration is only 88% (1.1.5). In fact this is only 54% when you take account of non-excavated materials which will all go by road I presume.
- 3.16.3 Continuous operation will be allowed at Chambers - possibly with 24/7 barge movements (1.3.85). Does this mean that 24/7 lorry movements will be required when the river is not available?
- 3.16.4 Finally, the Transport Strategy talks of a 'requirement' relating to % by river, but we know from discussions that derogations will be allowed from this and that the 'relevant authority' agreeing this will not be Southwark. Under 'exceptional circumstances' e.g. it's too expensive, river transport could be dropped altogether.
- 3.16.5 This last point is the nub of it - 'all by road' would be intolerable for our residents and while the whole case for CW is predicated on the availability of the river, there's nothing to back this up.

- 3.16.6 At the Issue Specific Hearing on 12<sup>th</sup> November, the ExA requested that the council reviewed the site traffic impact on local streets to focus on week days. This has been carried out below.
- 3.16.7 Traffic counts in the immediate vicinity of the proposed drive site were carried out by the council in April 2013 on Chambers Street, Bevington Street and Scott Lidgett Crescent.
- 3.16.8 The following table summarises the results of the traffic counts for an average week day (based on two week's worth of data)

Location	Direction	Total flow	Total vehicles AM peak (08:00 – 09:00)	Total vehicles PM peak (18:00 – 19:00)	85th percentile speeds (mph)
Chambers Street	Eastbound	443	27	58	22.9
Chambers Street	Westbound	587	107	38	23.2
Bevington Street	Northbound	774	68	75	30.9
Bevington Street	Southbound	432	28	29	30.1
Scott Lidgett Crescent	Eastbound	418	40	33	21.1
Scott Lidgett Crescent	Westbound	729	127	43	21.8

- 3.16.9 The best case scenario stated in the applicant's Transport Assessment of 11 HGV movements generated by the site per hour equates to 8% more traffic in the AM peak on Chambers Street and an 11% increase on Bevington Street. Off peak these percentages are significantly higher and this is also the case at weekends when general traffic levels are lower.
- 3.16.10 The all-by-road scenario requires 570 HGV movements per day or 57 HGV movements per hour. This equates to 43% extra vehicles in the AM peak on Chambers Street and 59% extra vehicles on Bevington Street. As before these percentages are higher off peak and at weekends. In both the best case and all-by-road scenarios traffic composition will be significantly affected given that existing levels of HGV movements are negligible.
- 3.16.11 Even under the proposed scenario (with 90% of the materials transported by barge) and only considering HGV traffic generated by the site, local streets will see a marked increase in overall traffic flows and a significant change in traffic composition resulting in an increased risk of delays and safety risks.

### **3.17 Waste Management**

- 3.17.1 The transport of excavated material is a significant concern for the council at Chambers Wharf. The applicant's commitment to barge transport needs to be properly secured by the DCO. At Chambers Wharf, even a small increase in the proportion of materials to be removed by road will result in adverse noise impacts on residents and the learning conditions at Riverside Primary School, and highway capacity issues. Therefore, appropriate mitigation needs to be

secured as part of the application, for how these additional impacts will be mitigated. It is not appropriate for these mitigation measures to be left for agreement when the works are taking place. This will be too late to provide and properly implement the safeguards and controls that are needed.

**3.18**      ***Water Quality and Resources***

3.18.1      No comments at this time, though appropriate mitigation is being sought on the matters raised.

**Ends.**