

SILVERTOWN TUNNEL

Volume 8

Development Consent Order Application

8.36 Comments on Written Representations –

Statutory Bodies:

The Infrastructure Planning (Examination Procedure)

Rules 2010

December 2016

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Silvertown Tunnel

Development Consent Order Application 8.36 Comments on Written Representations – Statutory Bodies

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Contents

1	INTRODUCTION	7
1.1	Purpose of this report.....	7
2	ENVIRONMENT AGENCY	8
2.1	Comments on Written Representation	8
3	MARINE MANAGEMENT ORGANISATION.....	31
3.1	Comments on Written Representation	31
4	PORT OF LONDON AUTHORITY	53
4.1	Comments on Written Representation	53
5	HEALTH & SAFETY EXECUTIVE	114
5.1	Comments on Written Representation	114
6	THAMES WATER	118
6.1	Comments on Written Representation	118
7	NATIONAL GRID ELECTRICITY TRANSMISSION PLC (NGET) and NATIONAL GRID GAS PLC (NGG)	123
7.1	Comments on Written Representation	123
8	ROYAL MAIL GROUP LIMITED.....	126
8.1	Comments on Written Representation	126

List of Tables

Table 1-1: Key issues identified from Written Representation by Environment Agency (EA) with TfL’s commentary 8

Table 2 - Key issues identified from Written Representation by Marine Management Organisation with TfL’s commentary 31

Table 3 - Key issues identified from Written Representation by Port of London Authority (PLA) with TfL’s commentary 53

Table 4 - Key issues identified from Written Representation by Health & Safety Executive with TfL’s commentary 114

Table 5 - Key issues identified from Written Representation by Thames Water with TfL’s commentary..... 118

Table 6 - Key issues identified from Written Representation by NGET and NGG with TfL’s commentary 123

Table 7 - Key issues identified from Written Representation by Royal Mail with TfL’s commentary 126

1 INTRODUCTION

1.1 Purpose of this report

1.1.1 This report provides the Applicant's responses to Written Representations (WRs) submitted by Interested Parties (IPs) at Deadline 1 with defined and recognised statutory functions. The Applicant has categorised these IPs for presentational purposes only and attaches no greater or lesser weight to their WRs, than WRs made by other categories of IP.

1.1.2 The following IPs' WRs are covered in this report:

- Environment Agency
- Marine Management Organisation
- Port of London Authority
- Health & Safety Executive
- Thames Water
- National Grid Electricity Transmission Plc. and National Grid Gas Plc.
- Royal Mail

1.1.3 It is important to note that some of these statutory bodies also have an interest in land directly affected by the Scheme. For ease of reference any representations made by a statutory body relating to land interests have been addressed in this report alongside that body's other non-land representations.

1.1.4 The Applicant has reviewed and considered in detail the matters raised in these WRs and, to assist the ExA, has responded or commented where the Applicant considers there is a significant matter to address. The Applicant's responses and comments on the WRs are set out for each IP in turn in a tabular format.

2 ENVIRONMENT AGENCY

2.1 Comments on Written Representation

Table 1-1: Key issues identified from Written Representation by Environment Agency (EA) with TfL’s commentary

Location in Representation	TfL Reference	Interested Party’s Comment	TfL Comment
Section 1.4	WR.EA.1	<p>We would like to reiterate the points we made in our Relevant Representations in relation to flood risk management. We are concerned about the tidal flood defences on both banks of the river which are affected by the proposed tunnel works. The red line boundary for the DCO covers a much larger stretch of the north bank however, where the flood defences are generally much older and in a poorer state of repair.</p> <p>It is important that the defences on both the north and south banks can be maintained and raised in the future, as flood risk is predicted to increase with climate change. These defences form part of the Thames</p>	<p>The Applicant has an interest in ensuring the walls remain fit for purpose during construction and operation and acknowledges there will be a need to raise the river walls crest level in line with the TE2100 plan.</p> <p>Approximately 570m of river wall frontage is present within the Scheme’s Order limits on the north bank of the River Thames. The Applicant will take temporary control of this length of wall from the current riparian owners for the duration of the Scheme’s construction, and will ensure the wall’s current flood protection level is maintained during construction. Once construction is</p>

		<p>tidal defences and protect people and properties in Newham and Greenwich. Pages 119 and 122 of the TE2100 plan outline the extent of tidal flood risk in this area. The plan sets out that these defences will need to be raised in the future from the current crest level of approximately. 5.18 AOD, to 5.7m AOD in the year 2065, and to 6.2m AOD in the year 2100. Assessments of the ability to do future raising should assume that a new wall will need to be built on the landward side of the existing defences to achieve the 6.2m AOD future crest level or alternatively, demonstrate that the existing walls have a residual life long enough to take them to the future raising date</p>	<p>completed, the Applicant will ensure the wall is returned to the relevant riparian owner in a condition no worse than when the Applicant initially took possession.</p> <p>The protective provisions, as currently drafted, in Part 5 of Schedule 13 (specifically article 53 b and c) to the dDCO [REP1-095] provide a means to ensure that any necessary protective works are implemented before or during any of the authorised works which may affect the river wall and that such works do not prevent the future raising of the wall to the TE2100 levels.</p> <p>Before commencement of the specified work the Applicant must submit to the Environment Agency</p>
<p>Section 1.4</p>	<p>WR.EA.2</p>	<p>Since we lodged our Relevant Representations TfL has begun the intrusive surveys of the flood defences we requested, and has shared some preliminary findings with us. It is essential that this work is progressed, and that TfL provides evidence to demonstrate that:</p> <ul style="list-style-type: none"> - Construction activities will not impact on 	<ul style="list-style-type: none"> • plans of the specified work; • the results of the intrusive survey of the river wall giving details of the structural condition and of the relevant sections of river wall; and • information to demonstrate that the authorised works will not prevent the

	<p>the structural integrity of any of the flood defences affected. If the DCO is granted this evidence should be provided to us for approval prior to any construction activities commencing</p> <p>- Works will not prevent or increase the costs of future raising of the defences to keep up with climate change. Appendix D of the Visual Survey Report provided by TfL outlines possible options for future flood wall raising. However these options assume that the existing walls have a significant residual life making it a possibility they will be fit for purpose in 2100, and that simple crest raising would be feasible. In many instances, this is not a realistic assumption. It is also important that the costs of future raising will not be unreasonably increased as a result of the tunnel scheme being in situ. For example, if raising or rebuilding defences in close proximity to the tunnel would necessitate excessively expensive mitigation or construction techniques, this would be unacceptable as riparian owners would then be placed under an additional financial burden to raise defences to</p>	<p>relevant sections of river wall being raised to TE2100 levels in the future.</p> <p>As part of these protective provisions, the EA can impose conditions specifically to "...secure that the efficiency of any flood defence is not impaired" before or during construction. The Applicant considers that this wording is sufficient to secure that the condition of the flood defences would not be diminished during construction. The Applicant would need to comply with any reasonable conditions imposed on it by the EA for this purpose.</p> <p>The EA are currently reviewing these Protective Provisions and their comments are expected imminently. The EA's comments on the protective provisions will provide a mechanism through which the Agency can secure a level of protection which satisfies their requirements.</p> <p>The Applicant acknowledges the EA's request</p>
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		TE2100 levels.	
Section 1.4	WR.EA.3	In addition, TfL have a responsibility to maintain a fit for purpose tidal flood defence during their occupation of the site. We seek a specific provision for this in the protective provisions for the benefit of the Environment Agency. The protective provisions need to ensure that if the obligations on riparian owners under local legislation are to be disapplied, the obligation falls instead on TfL whilst the works affecting the river wall are carried out.	<p>for a provision requiring the submission of a monitoring plan. The Applicant is currently considering the request and will discuss any amended wording with the EA.</p> <p>Although the protective provisions do not require the information to be submitted until before commencement of specified works, two reports outlining the current condition of the river wall have been produced. The Applicant is in discussions with the Environment Agency regarding the condition of the wall, the likely impacts of construction activities and the ability of future raising of the river defence with the Silvertown Tunnel asset in place.</p>
Section 1.4	WR.EA.4	If it is not possible to demonstrate these points, improvement works to the defences or other suitable mitigation (such as changing construction methodologies or ensuring less loading on the wall) will need to be carried out by TfL as part of the DCO. A mitigation plan will also need to be submitted to the Environment Agency for approval. To demonstrate that the works will not prevent or increase the costs of future raising, TfL should carry out a desk study	<p>The Applicant is currently tendering the intrusive river wall survey as proposed by the protective provisions. These investigations will further inform the Applicant on the current condition of the wall and will inform the potential ability of the river walls to withstand foreseeable construction activities associated with the Scheme. The information gathered from the intrusive investigations will be shared with EA as part of pre-construction</p>

		demonstrating that the cheapest raising options that would be feasible today with would still be feasible post tunnel construction.	approvals as required by the protective provisions.
Section 1.4	WR.EA.5	The results of the intrusive surveys, as well as the subsequent mitigation reports are required to be provided prior to the commencement of works either by a Grampian style DCO requirement or within the protective provisions for the benefit of the Environment Agency. This is important to allow an understanding of what improvement works TfL may need to do as part of the DCO.	
Section 1.5	WR.EA.6	At least one wall (referred to as “Zone 12”) is in such a poor condition that TfL have stated they do not wish to carry out intrusive investigations on this section for fear of causing further structural harm. This section is immediately above the line of the tunnel on the north bank. Ideally, we would have needed detailed information on the condition of this wall, including the depth of the	The Applicant highlighted the poor condition of the 30m length of river wall on the north bank of the River Thames (referred to as ‘Zone 12’ – overlying the proposed bored tunnels) to the EA during a meeting on the 26/08/2016. The condition of this wall was observed during a river boat inspection survey commissioned by the Applicant within the dDCO boundary, and undertaken on the

	<p>embedded sheet piles and ground anchors of the river wall at this location. This is because the tunnel boring machine will be operating at a shallow depth beneath the river wall.</p> <p>In the absence of this intrusive survey work for Zone 12, full information on this wall will not be available until contractors have started work on the site. Without information from intrusive surveys it will be not be possible to accurately ascertain the extent/condition of this flood defence (depth of pile embedment, and length/angle of ground anchors) or therefore to assess impacts on this wall from boring the tunnel underneath it, and other construction activities in close proximity. It will therefore not be possible to understand what strengthening or mitigation TfL may be required to carry out in order to ensure these flood defences remain fit for purpose at all points in time, while they are on site. It is likely that works to 'Zone 12' will need to be completed in the near future to ensure it remains fit for purpose. Discussion are ongoing between the Riparian Owners (Greater London Authority and Quintain), EA</p>	<p>3rd and 4th of August, 2016.</p> <p>The Applicant is currently procuring intrusive investigations for walls within the red line boundary, which will include investigations related to Zone 12. The Zone 12 investigations will include carrying out steel sampling to determine the grade of steel the wall is comprised of. In addition, magnetometer testing will be used to ascertain both the angle and depth of the anchors supporting the river walls.</p> <p>During the meeting on the 26/08/2016, all parties acknowledged concerns related to undertaking intrusive investigations on this section of wall, due to the effects investigations may have on the wall's current stability. As a result of these discussions, the Applicant is not proposing to undertake magnetometer tests to determine the toe depth of Zone 12, as this would require loading of the wall at its river edge. However, magnetometer tests will be used to determine the river wall toe depths on other sections of</p>
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		<p>and TfL about these. Given the uncertainty around the current condition of 'Zone 12' and any potential impacts from the tunnel's construction, it may not be possible for TfL to demonstrate to the Environment Agency's satisfaction that the works will not adversely affect the river wall.</p>	<p>the wall.</p> <p>In the absence of having definitive information on the toe depth of Zone 12 prior to the end of the dDCO process, the Applicant is assessing the impact of the Scheme on Zone 12 based on a combination of available historical information and interpretation using adjacent wall configurations, and knowledge of likely wall construction custom and practice. The results of this assessment will be included in a report to be issued to the Environmental Agency.</p> <p>In accordance with Part 5 of Schedule 13 to the dDCO the Protective Provisions require the Applicant, before commencement of any specified work, to submit to the Environment Agency, plans of the specified work and the results of the intrusive survey of the river wall giving details of the structural condition and bearing capacity of the relevant sections of river wall. Prior to any construction of the Scheme's permanent works commencing which could adversely affect the stability of Zone 12, the Contractor will undertake their</p>
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			<p>own investigations to verify the toe depth of this section of wall. The Contractor will be able to carry out such investigations with contingency measures in place to ensure the wall's stability is not jeopardised during the investigation.</p> <p>The Applicant is aware of the EA's contact with the owners of the flood defence, GLA/ Quintain, and that due to the poor condition of the walls, further investigation or remedial works may be necessary and undertaken prior to commencement of construction of the Silvertown Tunnel Scheme.</p> <p>Therefore a mechanism exists whereby the preliminary results of zone 12 assessment undertaken by the Applicant described above (which have been hampered by both lack of available EA asset records, and ability to undertake full investigatory work), will be revised and submitted in accordance the Protective Provisions, closer to the construction works and benefitting from a greater level of assessment certainty, due to up to date and more comprehensive survey,</p>
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			undertaken by either the EA (on behalf of the asset owner) or by the Contractor.
Section 1.5	WR.EA.7	Other sections of the river wall on the northern bank are also in poor condition, and may also need rebuilding or strengthening, both to facilitate TfL tunnelling works and/or to ensure fit for purpose flood defences to the wider Newham area. We are in discussions with TfL and the riparian freeholders to explore how these works will be delivered and funded.	See the response WR.EA.1-5 above.
Section 1.6	WR.EA.8	The local legislation – the Metropolis Management (Thames River Prevention of Floods) Amendment Act 1879 - relating to maintenance of flood defences places a statutory duty on riparian owners to maintain flood defences. The applicant seeks to disapply this legislation for the purposes of the construction of the tunnel. We do not object to this provided the applicant is prepared to agree to a clause in the protective provisions placing the obligation	

		<p>to maintain the flood defences on the person having control of the works. Following construction, the riparian owners would have the statutory duty to maintain the flood defences. However, we do seek a clause in the protective provisions requiring a river wall monitoring plan to be agreed by us in writing. The plan should include: 1. Baseline monitoring and results, 2. Construction monitoring, agreed trigger levels and mitigation plan, 3. Post construction monitoring (for 2 years) and mitigation.</p>	
<p>Section 1.8</p>	<p>WR.EA.9</p>	<p>TfL needs to provide more information on the proposed use of the NAABSA berth, and whether any re-commissioning works will be required (for example dredging, or works to the river wall). Although the berth is in use currently, if the nature of use during construction will intensify the impact on the river wall, or there is a cumulative impact from numerous activities occurring on the foreshore, this could have a destabilising effect. We do not believe it to be a safe assumption that TfL's activities will have exactly the same (or less) loadings on this</p>	<p>The Applicant is committed to transport a minimum of 55% by weight of all construction materials by river. Paragraph 4.4.48 of the Construction Methodology Statement (CMS) [APP – 046] envisages that the NAABSA berth will be used to unload predominantly: aggregates, crushed stone and granular sub base. The berth may also be used by long reach excavator/crane to offload stockpiled tunnel arisings to waiting Thames Barges.</p> <p>The river bed in front of the NAABSA berth will be levelled to create a uniform surface to</p>

		<p>defence than current activities, or that no additional preparatory works will be required. TfL will need to provide evidence to the Environment Agency that their activities will not cause a detriment to the defence, including any cumulative impacts, and may need to carry out strengthening or other mitigation.</p> <p>Specifically any dredging in close proximity to the wall (to level the Berth) should be assessed cumulatively with TfL's loading scenarios (from the cranes/plant on the riverside)</p>	<p>allow barges to sit on the river bed at low tide. This work will involve excavating 0.5m to 1.0m of river bed and replacing with crushed stone. The crushed stone layer will not only create a uniform bed, but will help to protect against river bed erosion from the increased movement of barges, and also create a stabilising effect of the soil in front of (or on the 'passive' side of) the river walls.</p> <p>The Applicant in assessing river wall stability has used various numerical analysis code to assess the structural capacity of the river wall under existing usage, and future operations associated with the Scheme. An additional visual survey and recording of sheet piled river walls thicknesses was commissioned in September 2016 by the Applicant. The information acquired from this survey has been used to assess further the condition of river walls and apply the corrosion rates of the steel sheet piles used in the analyses.</p> <p>Results of the Applicant's river wall analyses allowing for both (conservative) loading within</p>
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			<p>the 10m rear wall (exclusion) zone in addition to construction material surcharge, and with a 0.5m reduction in river bed level, provide similar levels of stability to the current wall usage.</p> <p>The protective provisions contained in Schedule 13 to the DCO will provide the EA control over construction activity near the river wall – similar assessments supporting the Contactor’s works proposals for EA approval will be undertaken prior to construction of the Scheme, alongside the results of intrusive survey in respect of the river wall. The approval rights will allow EA to ensure that use of the NAABSA will not adversely affect the integrity of the river wall or the EA’s ability to access it.</p> <p>The Applicant highlighted the poor condition of the 30m length of river wall on the north bank of the River Thames (referred to as ‘Zone 12’ – overlying the proposed bored tunnels) to the EA during a meeting on the 26/08/2016. The condition of this wall was observed during a river boat inspection</p>
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			<p>survey commissioned by the Applicant within the dDCO boundary, and undertaken on the 3rd and 4th of August, 2016.</p> <p>The Applicant is currently procuring intrusive investigations for walls within the red line boundary, which will include investigations related to Zone 12. The Zone 12 investigations will include carrying out steel sampling to determine the grade of steel the wall is comprised of. In addition, magnetometer testing will be used to ascertain both the angle and depth of the anchors supporting the river walls.</p> <p>During the meeting on the 26/08/2016, all parties acknowledged concerns related to undertaking intrusive investigations on this section of wall, due to the effects investigations may have on the wall's current stability. As a result of these discussions, the Applicant is not proposing to undertake magnetometer tests to determine the toe depth of Zone 12, as this would require loading of the wall at its river edge. However, magnetometer tests will be used to determine</p>
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			<p>the river wall toe depths on other sections of the wall.</p> <p>In the absence of having definitive information on the toe depth of Zone 12 prior to the end of the dDCO process, the Applicant is assessing the impact of the Scheme on Zone 12 based on a combination of available historical information and interpretation using adjacent wall configurations, and knowledge of likely wall construction custom and practice. The results of this assessment will be included in a report to be issued to the Environmental Agency.</p> <p>In accordance with Part 5 of Schedule 13 to the dDCO the Protective Provisions require the Applicant, before commencement of any specified work, to submit to the Environment Agency, plans of the specified work and the results of the intrusive survey of the river wall giving details of the structural condition and bearing capacity of the relevant sections of river wall. Prior to any construction of the Scheme's permanent works commencing which could adversely affect the stability of</p>
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			<p>Zone 12, the Contractor will undertake their own investigations to verify the toe depth of this section of wall. The Contractor will be able to carry out such investigations with contingency measures in place to ensure the wall's stability is not jeopardised during the investigation.</p> <p>The Applicant is aware of the EA's contact with the owners of the flood defence, GLA/ Quintain, and that due to the poor condition of the walls, further investigation or remedial works may be necessary and undertaken prior to commencement of construction of the Silvertown Tunnel Scheme.</p> <p>Therefore a mechanism exists whereby the preliminary results of zone 12 assessment undertaken by the Applicant described above (which have been hampered by both lack of available EA asset records, and ability to undertake full investigatory work), will be revised and submitted in accordance the Protective Provisions, closer to the construction works and benefitting from a greater level of assessment certainty, due to</p>
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			<p>up to date and more comprehensive survey, undertaken by either the EA (on behalf of the asset owner) or by the Contractor..</p> <p>Apart from fendering, mooring and additional health and safety measures such as ladders, it is not envisaged that there will any need for re-commissioning works.</p>
<p>Section 2.0</p>	<p>WR.EA.10</p>	<p>In our relevant representations, we stated that we had WFD compliance concerns with regards to water quality. TfL has since provided an updated WFD compliance assessment. We understand this will be submitted to the Examining Authority in due course. We have had the opportunity to review this report, along with annex A (CEFAS Chemistry certificate of analysis). We are satisfied that this report has now addressed our outstanding WFD related concerns.</p> <p>We note that construction activity is not</p>	<p>The updated WFD compliance assessment was submitted at Deadline 1 [REP1-117].</p> <p>Removal of the temporary jetty is secured by the dDML and the PLA's Protective Provisions. As such a separate requirement is not necessary within the DCO.</p> <p>Under the Environment Agency's Protective Provisions, any approval of a specified work (which would include the jetty) may be given subject to any requirement the Agency may make for the protection of...water resources.</p> <p>Thus, any approval for the jetty could include</p>

		<p>included specifically within the dredge assessment. However we consider that the WFD risk from this would be no greater than that which has been thoroughly evaluated within the dredge assessment. We would anticipate that the piling and dredging would be consecutive rather than happening at the same time. Therefore we expect the risks to the water body from the jetty construction would be similarly low. The future demolition of the jetty and removal of the piles could potentially re-suspend sediments. However we recommend the WFD impacts of that activity would be best assessed nearer that time, so that the most up to date sediment data can be used. We would recommend a DCO requirement, firstly ensuring that the jetty is removed and decommissioned following the works, and also that a WFD assessment be provided at the decommissioning stage.</p>	<p>a condition that any decommissioning is subject to a revised WFD assessment prior to being undertaken. A separate DCO provision is therefore not required.</p>
<p>Section 3.0</p>	<p>WR.EA.11</p>	<p>Since making our relevant representations, we have had the opportunity to comment on a draft groundwater monitoring strategy. We agree with the general strategy that is</p>	<p>The risk that boreholes identified within the draft groundwater monitoring strategy (provided as Appendix F to the updated CoCP REP1-119)) may no longer exist has</p>

		<p>proposed, but advised TfL to consider and mitigate for the risk that some boreholes that the strategy relies on may no longer be in place in the near future. We understand that TfL will shortly be submitting an updated version of this report to the Examining Authority, addressing this concern. We are pleased to note that the draft DCO includes a requirement for a Groundwater Monitoring and Verification Plan.</p>	<p>been taken into consideration.</p> <p>Appendix A of the Draft Ground Water Monitoring Strategy outlines the requirement for a borehole condition survey of all proposed monitoring locations presented. This will be completed to establish the current status of the proposed monitoring boreholes / piezometers. Pending the results of the condition survey, installation of further monitoring boreholes maybe required The CoCP requires the contractor to produce a Groundwater Monitoring and Verification Plan. Section 9.3.11 outlines the <i>'Groundwater Monitoring and Verification Plan will be developed with regard to the Groundwater Monitoring Strategy (Appendix F)'</i>. The CoCP is secured by Requirement 5 of the dDCO.</p>
<p>Section 3.0</p>	<p>WR.EA.12</p>	<p>We will also seek a DCO requirement to secure further ground investigations, any necessary remediation works and a verification report confirming that any contamination risks have been addressed and that the site will be in a satisfactory</p>	<p>Chapter 9 of the CoCP sets out a number of measures that the Contractor will be required to take in order to prevent contamination risk. The exact details of these measures will form part of the Contractor's Construction Environmental Management Plan, which, as</p>

		condition.	set out in the CoCP will be consulted upon with relevant stakeholders (such as the Environment Agency), before being approved by TfL.
Section 3.0	WR.EA.13	The Code of Construction Practice states that TfL will seek approval from us before using polymers required with the Tunnel Boring Machine. It is important that TfL does consult us, as we will be able to advise whether they need an Environmental Permit to use a substance.	As this statement forms part of the Code of Construction Practice, the Contractor will be required to agree this with the Environment Agency, further to Requirement 5 of the dDCO which requires the Code of Construction to be complied with.
Section 4.1	WR.EA.14	<p>We seek a requirement to avoid all planned (i.e. non-emergency) dredging during the months of June, July and August. If dredging during these months is essential to the construction programme, then approval should be sought from the Environment Agency to ensure that suitable mitigation is in place. For example we may require water quality monitoring, or the use of low impact dredging techniques.</p> <p>The reason we seek to avoid planned</p>	<p>The Applicant has considered comments made by the Environment Agency during ongoing consultation and has incorporated a requirement within the Code of Construction Practice (CoCP) [REP-119], which was updated for Deadline 1, to avoid all planned (i.e. non-emergency) dredging during the months of June, July and August.</p> <p>Given the comments in their relevant representation, the Applicant shall amend the CoCP further for Deadline 2 to incorporate</p>

		<p>dredging during these months is that dredging can reduce dissolved oxygen (DO) levels and suspend sediment. DO levels in the river are typically low already during the summer months, as water temperatures are higher, and flows are reduced. Summer storms are also known to result in extensive areas of low DO in the Thames. Fish are sensitive to changes in water quality, and poor water quality has the potential to cause fish mortalities. During the summer months, there are higher numbers of juvenile fish in the river. Due to their size, they are less able to move away from hypoxic (oxygen depleted) conditions, and so are more vulnerable to the impacts of dredging.</p>	<p>that any dredging within the months of June, July and August shall only be undertaken with the approval of the Environment Agency.</p>
<p>Section 4.2</p>	<p>WR.EA.15</p>	<p>As stated in our relevant representations, we seek a restriction to the effect that TfL shall not commence any piling until a piling method statement has been submitted to and approved by the Environment Agency. This could either be secured by way of a requirement or in the protective provisions. We would not require any seasonal restrictions in relation to vibration or silent</p>	<p>The COCP [REP1-119] has been updated at deadline 1 to reflect the EA's comments within their relevant representation and includes further restrictions on piling. Paragraph 8.8.1 outlines:</p> <ul style="list-style-type: none"> • the use of soft start procedures during piling for a minimum of 20 minutes. Should piling cease for a period greater than 10 minutes the soft start procedure

		<p>piling techniques. However percussive or impact piling should only take place from November to March inclusive in order to avoid noise and vibration affecting key fish spawning and migration periods. We would suggest this specific prohibition be contained in the requirement relating to the piling method statement.</p>	<p>must be repeated;</p> <ul style="list-style-type: none"> percussive piling will be limited to November-March inclusive (unless otherwise agreed with the MMO, PLA and EA)
Section 5.0	WR.EA.16	<p>We note that the draft DCO includes a requirement for a Site Waste Management Plan to be submitted for approval, but it does not specify to whom. We do not have a preference whether it should be approved by the Local Planning Authority or the Environment Agency, but either way would like to have the opportunity to comment on this document.</p>	<p>The Site Waste Management Plan, which will be based on that found at Appendix E to the CoCP [REP1-119], will be approved by the Applicant. The Applicant's response to First Written Question DC94 [REP1-177] explains why this document will not need approval from third parties. The Applicant also notes that, as set out in the CoCP, part of the role of the SWMP is for the Contractor to show to TfL that it has taken into account the Duty of Care, which, ultimately, the Environment Agency would be able to enforce against TfL.</p>
Section 6.0	WR.EA.17	<p>TfL seeks to disapply various pieces of legislation for the period of construction of the works authorised by the DCO. These</p>	<p>The Applicant notes this representation and, as noted elsewhere, looks forward to receiving detailed comments from the EA on</p>

		<p>are listed in Article 3 of the draft DCO. Those relevant to the Environment Agency are:</p> <p>Metropolis Management (Thames River Prevention of Floods) Amendment Act 1879</p> <p>Thames Barrier and Flood Prevention Act 1972</p> <p>Thames Water Authority Land Drainage Byelaws 1981</p> <p>Environmental Permitting Regulations 2010 (regulation 12 only which relates to a flood risk activity)</p> <p>Water Resources Act 1991 s24 (abstraction licences)</p> <p>Byelaws under paragraph 5, 6 or 6A of Schedule 25 Water Resources Act 1991</p> <p>The Environment Agency is prepared to consider disapplication of this legislation provided TfL agrees to appropriate</p>	<p>the protective provisions in order that agreement can be reached on these points.</p> <p>The disapplication provided for by the dDCO only applies to the construction period and not beyond, as confirmed by article 3(1) which states:</p> <p>"the following provisions do not apply in relation to the construction of any works or the carrying out of any operations required for the purpose of, or in connection with, the construction of the authorised development".</p>
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		<p>protective provisions for the benefit of the Environment Agency to be included in the DCO though we would stress that we would not agree to the disapplication of the 1879 Act beyond the completion of the tunnel works which affect the river wall as we would want the legal obligations of riparian owners to maintain the flood defences to resume.</p>	
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3 MARINE MANAGEMENT ORGANISATION

3.1 Comments on Written Representation

Table 2 - Key issues identified from Written Representation by Marine Management Organisation with TfL’s commentary

Location in Representation	TfL Reference	Interested Party’s Comment	TfL Comment
Para 1.1 Benthic Ecology	WR.MMO.1	The subtidal survey was conducted during December using a 0.1m ² Day grab deployed from a vessel at 10 proposed stations. However, only 2 stations were successfully sampled. These 2 stations are not considered to accurately reflect the marine ecology of the survey area as the sediment at stations which could not be successfully sampled is presumably coarser, reflecting different habitat conditions and an altered ecology. Further sampling therefore may be required using a grab more suited to coarser sediments (e.g. a mini hamon	<p>A survey specification for the collection of intertidal and subtidal invertebrates was provided to the MMO in October 2015. The MMO provided a response in November 2015 which stated that:</p> <p>“Single replicate cores should be collected from 10 sample locations in the intertidal. This was to be accompanied by a Phase 1 Intertidal Habitat Survey; and</p> <p>Single replicate 0.1m² Day grabs should be collected from 10 sample locations in the</p>

		<p>grab) to obtain an accurate representation of the subtidal area and to fully understand the potential impacts of the proposed works, and presence of designated or rare species associated with the habitats that have not been successfully sampled. The MMO seek to discuss possible solutions with the Applicant and our technical advisors but, it is possible further samples would still be required.</p>	<p>subtidal.”</p> <p>The following surveys were undertaken to inform the marine ecological baseline:</p> <ul style="list-style-type: none"> • Phase 1 Intertidal Habitat Survey: Habitat mapping of the intertidal zone of the foreshore in the vicinity of the marine works (16th December 2015). • Intertidal Benthic Invertebrate Survey: Core sampling (using a 0.007m² hand core) of the intertidal sediments in the vicinity of the proposed works in order to better understand and quantify the intertidal infaunal assemblages (16th December 2016). Nine intertidal stations were successfully sampled out of the ten that were attempted. • Subtidal Benthic Invertebrate Survey: Grab sampling (using a 0.1m² day grab) of the subtidal sediments in the vicinity of the proposed works in order to better understand and quantify the subtidal assemblages in the area (15th
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			<p>December 2015). Due to the nature of the material encountered, it was only possible to collect samples for invertebrate analysis at two of the sample locations out of ten that were attempted.</p> <p>The survey constraints were communicated to the MMO immediately and subsequently reported/discussed on the 12/04/2016 when the results of the surveys were available. No concerns were raised with respect to the sufficiency of the data to inform the Environmental Statement. However discussions will be ongoing with the MMO on survey requirements prior to construction.</p> <p>The results of the surveys were analysed and the samples were found sufficient to characterise the study area and inform the Environmental Statement as a result of the following:</p> <ul style="list-style-type: none"> • Viable macrofauna samples were collected from two sites with enough material for particle size analysis and
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			<p>organic carbon from a consistent sediment sample, as set out in paragraph 1.2.8 of Appendix 10.B of the ES [APP-067].</p> <ul style="list-style-type: none"> • Both intertidal and subtidal habitat in the survey area were found to be species poor. • The species and benthic assemblages recorded in the area were considered typical of communities recorded in the inner Thames Estuary. No marine species or habitats which are considered nationally scarce or rare were recorded within the survey area
<p>Para 1.2 Benthic Ecology</p>	<p>WR.MMO.2</p>	<p>There is some confusion in the text regarding the description of the biotopes within Section 10.4.19 of the ES ‘The western section of the intertidal area in the immediate vicinity of the Scheme is composed of coarse sand, while the eastern section contains a larger amount</p>	<p>The text within Section 10.4.19 of the ES is correct.</p> <p>Drawing 10.3 has been updated to reflect this error and submitted at Deadline 2.</p>

		of silt and small areas of mudflat'. The biotopes mapped in the relevant Figure appear to show the opposite trend from this textual summary.	
Para 1.3 Benthic Ecology	WR.MMO.3	Section 10.4.19 also states 'no visible fauna or signs of fauna (such as casts, trails or burrows) were recorded in the survey' is symptomatic of an impoverished intertidal community'. The MMO do not agree with this statement as the community may be diverse and densely populated even in the absence of any visual features, only the community appears to lack those taxa which leave evidence of feeding on the sediment surface.	<p>Further explanation is provided below for the statement provided in Section 10.4.19 of the ES [APP-067].</p> <p>The nine intertidal invertebrate samples collected as part of the site specific survey demonstrated a very species poor intertidal community with a range of 0-2 taxa recorded (consisting of nematodes, three oligochaete species and two mollusc species) (Section 10.4.21 of the ES). The intertidal area is therefore considered to be impoverished which is further supported by the absence of any visual features on the sediment surface.</p>
Para 1.4 Benthic Ecology	WR.MMO.4	It is difficult to assess the suitability of the statement 'the extent of mudflat habitat in this area is small and is considered to be of limited ecological importance' in Section 10.4.20 without data to support	<p>Further information is provided below in support of the statement provided in Section 10.4.20 of the ES [APP-067].</p> <p>The extent of the intertidal habitat within the</p>

		<p>this. It should be clarified how large the mudflat is and the spatial extent and location of other mudflat habitats in the vicinity of the site.</p>	<p>study area covers approximately 1.3 ha of which 0.76 ha is impoverished mudflat habitat that is already subject to ongoing disturbance from the adjacent working wharves. As highlighted in Section 10.4.2.1 of the ES, the nine intertidal benthic samples collected as part of the baseline survey were very species poor with this impoverished habitat considered to be of limited ecological value.</p> <p>The loss of intertidal habitat as a result of the scheme will be negligible and temporary (the footprint of the piles is approximately 22 m² which occurs predominantly in the subtidal).</p> <p>In addition, no direct changes to the intertidal habitat will occur as a result of dredging, as this only occurs within the subtidal. The potential for any indirect changes to intertidal habitat as result of sediment accretion is predicted to be negligible.</p> <p>Intertidal habitat throughout the wider Greenwich area is limited due to the highly modified nature of the river banks with the nearest extensive mudflats located</p>
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			approximately 30 km away in the outer Thames Estuary.
Para 2.1 Underwater Noise	WR.MMO.5	The potential behavioural impacts for fish from impact piling activities have not been adequately addressed. It has been assessed solely using the dBht metric which is not supported by peer-reviewed literature. The impact criteria should be derived from peer-reviewed scientific literature and relevant to the specific source (i.e. impact piling). This was raised to the Applicant in advice on the PEIR in 2015.	<p>The Applicant believes there are currently no peer-reviewed behavioural response criteria for fish.</p> <p>Comments received from the MMO on the PEIR, advised the Popper et al. (2014) criteria that provide quantitative thresholds for recoverable injury, mortality and potential mortal injury in fish in response to pile driving, among other sources should be used in the assessment.</p> <p>Popper et al. (2014) states that the risk of a behavioural impact on fish is considered to be high for fish near to the source of impact piling, moderate at intermediate distances and low in the far-field. However, Popper et al. (2014) does not provide any thresholds for behavioural effect or clarification on the specific distances affected. The response to the PEIR from MMO recognises that there is currently no widely accepted behavioural</p>

			<p>impact criteria and does not offer an alternate approach to the dBht metric.</p> <p>Therefore, the underwater noise assessment has still applied this metric to consider the likely and relative potential behavioural effects of impact piling on different fish species. It should be noted that although this metric has not been published or validated by experimental study, it has been recognised to have some value in peer-reviewed scientific literature (e.g. Thompson et al., 2013; Popper et al., 2014).</p> <p>The piling methodology (and its impact on fish behaviour) will be controlled through the dDCO as it will form part of the construction plans and method statements which will need to be submitted to the PLA and MMO pursuant to the Protective Provisions and dDML [REP1-095]]. Specific mitigations are also embedded in the CoCP Chapter 8, namely the use of soft start procedures during piling for a minimum of 20 minutes. Should piling cease for a period greater than 10 minutes the soft start procedure must be</p>
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			repeated. In addition, percussive piling will be limited to November to March inclusive (unless otherwise agreed with the MMO, PLA and the Environment Agency).
Para 2.2 Underwater Noise	WR.MMO.6	The MMO has concerns relating to propagation loss model outlined in the Underwater Noise Assessment in Appendix 10C of the ES. It should be clarified if field measurements had been carried out to test and validate model predictions of sound propagation loss.	The Applicant is not aware of any definitive or regulatory guidance on underwater noise propagation models and their application in different marine environments. The logarithmic spreading propagation model utilised for this Scheme has been used to support numerous riverside developments such as Green Port Hull on the Humber (URS Scott Wilson, 2011) and Oikos Deep Water Jetty on the Thames (Adams Hendry Consulting, 2016), and has been accepted by regulators, including the MMO, to date. In particular, the Environment Agency advocated its use for the Green Port Hull development and advised on the specific attenuation and absorption coefficients to use as input parameters. Its continued application was therefore considered appropriate for this study. It is also worth noting that the National Marine Fisheries Service (NMFS) in the United States

			<p>recommends the use of this practical spreading model for predicting the attenuation of sound from a noise source and have incorporated this model in their in-house pile driving calculator. When carrying out an underwater noise assessment in support of a marine licence application, the NMFS requires use of this pile driving calculator to assess the potential impacts of pile driving on fish.</p> <p>No field measurements have been carried out to test and validate the model predictions of sound propagation loss. However, the attenuation and absorption coefficients of the propagation model are based on field measurements collated by the Environment Agency of piling undertaken at a range of coastal and estuarine locations (Adrian Fewings, Environment Agency, pers.comm.).</p> <p>We are aware that the spreading loss model can underestimate noise levels close to the source and overestimate noise levels further from the source (Farcas et al., 2016). On this basis, the simple propagation model will have</p>
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			<p>overestimated noise exposures at long ranges. In other words, it may have overestimated the maximum range of effects of different response thresholds. Furthermore, this model does not take account of absorption and scattering as a result of suspended sediments. Levels of suspended sediments in the Thames Estuary are relatively high and this would attenuate the propagation of noise. Overall, the simple sound propagation model is likely to have overestimated rather than underestimated noise exposures. Therefore, the assessment conclusions presented within the ES are worst case.</p>
<p>Para 2.3 Underwater Noise</p>	<p>WR.MMO.7</p>	<p>The source of the major and minor disturbance thresholds attributed to Southall et al., (2007) for proposed sound pressure level (SPL) criteria should be clarified.</p>	<p>For harbour porpoise, criteria of 155 dB re 1 µPa and 90 dB re 1 µPa are proposed as major and minor disturbance thresholds respectively (Southall et al., 2007). For seals, 200 dB re 1 µPa and 160 dB re 1 µPa are proposed as major and minor behavioural thresholds respectively. Chapter 4 in Southall et al. (2007) includes a detailed review of criteria for behavioural disturbance of high frequency cetaceans (i.e. harbour porpoise).</p>

			<p>The major and minor behavioural response criteria for pinnipeds were derived from Harris et al. (2001). Further reference is provided by Bailey et al. (2010) which reports on all these criteria in Table 2 of their peer reviewed paper.</p>
<p>Para 2.4 Underwater Noise</p>	<p>WR.MMO.8</p>	<p>The assessment states that vibro piling techniques will result in an estimated mean unweighted zero-to-peak vibro piling SL of 196 dB re 1 μPa m. It should be clarified how this source level has been derived as no references or explanation has been included</p>	<p>Vibro-piling can reduce the source level (SL) of percussive/impact piling during construction by approximately 30 dB re 1 μPa m (Illinworth and Rodkin, 2007). Hence a vibro piling source level of 196 dB re 1 μPa m has been derived by subtracting 30 dB from the impact piling source level of 226 dB re 1 μPa m.</p> <p>Measured levels of sound from vibro piling of 1m piles also indicate source level to be in this region (Illinworth and Rodkin, 2007).</p>
<p>Para 2.5 Underwater Noise</p>	<p>WR.MMO.9</p>	<p>Clarification is requested on how the distances for behavioural reactions from marine mammals have been derived.</p>	<p>The distances provided in table 7 of Appendix 10.C were calculated using the Nedwell et al. (2007) dBht metric (90dBht for major disturbance and 50dBht for minor disturbance).</p>

			<p>The distances using the Southall et al. (2007) behavioural thresholds for pinnipeds and cetaceans have also been provided below for completeness.</p> <p>A major and minor behavioural response in seals is predicted to occur within the region of 60 m and 2 km respectively. A major and minor behavioural response in harbour porpoise is predicted to occur within the region of 3 km and 13 km respectively.</p>
Para 2.6 Underwater Noise	WR.MMO.10	The full reference to Anthony et al., (2009) is missing in the reference list of the assessment and provision is requested.	Anthony, T.G., Wright, N.A., Evans, M.A. 2009. Review of diver noise exposure. Prepared by QinetiQ for the Health and Safety Executive 2009. RR735 Research Report.
Para 3.1 Coastal Processes	WR.MMO.11	The MMO understand that detailed design may not be possible at this stage. If possible the details of all planned dredging operations and seabed preparation as part of the scheme should be provided in a table, with related size of	Dredging will be required to improve tidal access windows for materials handling operations at the temporary jetty and efficient navigation to and from the jetty. The environmental impact assessment assumes dredging to the dimensions provided in the

		<p>the area/areas to be dredged, the depth of the proposed dredging, as well as the total dredge volume. If it is not possible to provide this detail at this time, then the MMO would like to reiterate the requirement for the inclusion of a condition within the DML requiring a method statement to be signed off for all activities covered by the DML, to allow for thorough assessment and approval post consent.</p>	<p>table requested by MMO, below.</p> <p>For the temporary jetty, approximately 3m of material will be dredged from the river bed (including a 0.5m over dredge allowance). This dredge pocket will allow either 2000t dry bulk vessels or 1000t barges to utilise the temporary jetty. The size of dredge pocket allows for access to the jetty 24hours a day.</p> <p>Whilst dredging is needed for the temporary jetty, there is no requirement to provide dredging for the NAABSA berth as Thames Barges will rest on the river bed at low tide. However, the dDCO allows the Applicant to maintain the NAABSA berth by levelling the river bed. It is assumed that the river bed will be excavated to a 0.5m to 1.0m depth and then crushed stone used to fill the excavated river bed to create a level bed for the barges to sit on.</p> <p>Dredging for the temporary jetty and maintenance levelling of the existing NAABSA berth will depend on the contractor's method of working, and cannot</p>
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			<p>be designed in detail at this stage. However, the table below summarises the data in the figure “River Thames Transportation Envisaged Temporary Jetty” in NIPRA [APP-054], and provides the indicative dredge/river bed excavation:</p> <table border="1" data-bbox="1303 550 1935 1003"> <thead> <tr> <th></th> <th>Temporary Jetty</th> <th>NAABSA Berth</th> </tr> </thead> <tbody> <tr> <td>Dredge/Excavation Area</td> <td>27,200m²</td> <td>2,256m²</td> </tr> <tr> <td>Maximum Depth</td> <td>3m</td> <td>1m</td> </tr> <tr> <td>Dredge /Excavation Volume</td> <td>52,500m³</td> <td>2,256m³</td> </tr> </tbody> </table> <p>The Applicant amended the dDML in Schedule 12 to the dDCO at deadline 1 to take into account the MMO’s request in this regard. Dredging activities would be licensed activities under paragraph 3 (1) of the dDML. Condition 4 of the dDML requires that the Applicant must produce a method statement</p>		Temporary Jetty	NAABSA Berth	Dredge/Excavation Area	27,200m ²	2,256m ²	Maximum Depth	3m	1m	Dredge /Excavation Volume	52,500m ³	2,256m ³
	Temporary Jetty	NAABSA Berth													
Dredge/Excavation Area	27,200m ²	2,256m ²													
Maximum Depth	3m	1m													
Dredge /Excavation Volume	52,500m ³	2,256m ³													

			<p>for any licensed activities to be approved by the MMO before any activities are commenced – the activities must be carried out in accordance with the approved method statement.</p>
<p>Para 3.2 Coastal Processes</p>	<p>WR.MMO.12</p>	<p>The modelling used for suspended sediment transport did not consider the worst case scenario. It was based on the surface sediments collected during December 2015, rather than the more consolidated clays collected during January 2016. A higher percentage contribution of fines from the sediment to be dredged needs to be considered for the modelling. The worst case scenario is to consider the total amount of sediment fines to be dispersed and contributed as a plume in the water column.</p>	<p>The modelling work presented in the ES Appendix 16.B Hydrodynamic Modelling [APP-078] used the survey data from December 2015 in order to allow sufficient time to undertake the modelling prior to submission of the Application. It is considered that the approach used to be appropriate and indicative of the worst case scenario for the following reasons.</p> <p>The proposed dredge depth is approximately 3m. The January site investigation information referenced in section 5.3 of the Hydrodynamic Modelling report indicates that the majority of this depth will comprise of the consolidated clay, rather than loose sediment. At vibracore locations 01, 03, 05, and 06 (shown on Figure 5-3 of Appendix 16.B Hydrodynamic Modelling [APP-078]): the surface sediment layer was between 0.13 and 0.25m deep and consisted of gravelly</p>

			<p>sand. Below this depth was brown clay which was sufficiently consolidated to enable sampling (unlike the soft sediment above).</p> <p>Therefore an assumption of a slightly clayey (2% clay) sand has been made within the hydrodynamic model. This is based on the Particle Size Distribution (PSD) testing results in the December 2015 investigation from a sample taken from within the dredge zone, and therefore which represents the unconsolidated sediment in the location of interest. The samples tested in the January 2016 investigation for PSD were taken from consolidated clay, rather than the unconsolidated loose sediment and therefore are not as representative of the material mass with greatest potential to be released into the water column as a result of dredging.</p> <p>The preferred dredging method is by a backhoe excavator (as stated in Section 10.6.81 of the ES [APP-031, as updated for Deadline 1: REP1-109]) which in consolidated or semi-consolidated clay will tend to limit the volume of material released into the water column because the clay</p>
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			<p>remains in clumps, as opposed to loose fine grained material susceptible to being held in suspension.</p> <p>Therefore, if the model were to be run again using the January data, changing the model to account for a greater percentage of fine sediments, it would also have to account for the reduced mass released from the dredging due to the consolidated nature of the materials.</p> <p>The results of the calculations of potential concentrations in the dissolved phase are significantly (between 4 and 7$\mu\text{g}/\text{m}^3$) below the Environmental Quality Standard (EQS), as set out in 16.4.31 of the ES [APP-031, as updated for Deadline 1: REP1-109]. It is therefore unlikely that remodelling would lead to a different conclusion. This is due to the small amount of fine sediment released during dredging of the consolidated layer will be dispersed by the currents in the dredge area and is therefore unlikely to have a notable effect on the water quality.</p>
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<p>Para 3.3 Coastal Processes</p>	<p>WR.MMO.13</p>	<p>The cumulative effects of the scheme with other developments nearby (e.g. the redevelopment of the Leamouth Peninsular adjacent to Bow Creek and the redevelopment at the Greenwich Peninsula) with regards to sediment transport needs to be considered.</p>	<p>The cumulative assessment considered other nearby developments are set out in Appendix 17A of the ES [APP-031]. In general, the schemes assessed propose very limited works within the river. Those that do and are assessed within the cumulative assessment include :</p> <ul style="list-style-type: none"> • Leamouth Peninsula North – a pedestrian bridge • Wharves, Pelton Road, Greenwich – landscaping of river wall • Coal Jetty & part of the River Thames, Peninsula Riverside, Greenwich – refurbishment of jetty • Land at Enderby Wharf (Former Alcatel Site) Christchurch Way – new jetty, improvements to river wall, dredging, piling, pontoon etc. <p>There may be potential for cumulative effect with the latter of these schemes. However, given that the ES reports that [APP-031], as updated for Deadline 1, at paragraph 16.10.5), the temporary jetty will not have any</p>
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			<p>significant impacts on the existing flow or sediment transport regimes of the River Thames, it is reasonable to conclude that there are unlikely to be significant cumulative effects with other schemes.</p>
<p>Para 3.4 Coastal Processes</p>	<p>WR.MMO.14</p>	<p>To prevent or further reduce water quality impacts from resuspension (Suspended Sediment Concentration (SSC) and contaminants), further mitigation measures to limit resuspension from dredging and eventually also from disposal are required. These can be addressed through a Waste Disposal Strategy and a Construction Environment Management Plan (CEMP).</p>	<p>The impacts of suspended sediments were simulated and calculated to be negligible, as set out in paragraph 16.6.11 of the ES [REP1-109].</p> <p>The ES paragraph 10.6.81 indicates that the preferred method of dredging is to utilise a backhoe excavator, and the contractor will be required to use the best available method to minimise the potential for suspension of sediment. This is outlined in section 15.4 of the Code of Construction Practice [REP1-119].</p> <p>See the response to WR.MMO.12, above in relation to the potential impact from suspended solids.</p> <p>As set out in paragraph 13.3.1 of the CoCP, as amended at Deadline 1 [REP1-119], disposal of dredging waste will be dealt with</p>

			<p>through the Site Waste Management Plan. The SWMP will include (as seen in the draft version of the plan submitted as Appendix E to the CoCP [REP1-119]) mitigation measures relating to the collection, storage, transportation and treatment of the sediment arisings sufficient to protect the surface water quality (as well as other environmental concerns). Furthermore, paragraph 13.3.4 of the CoCP makes clear that dredged material must be dealt with in accordance with the Receptor Site Assessment methodology, which in its defining principles, includes the need to 'protect the quality of water'.</p>
<p>Para 3.5 Coastal Processes</p>	<p>WR.MMO.15</p>	<p>No monitoring measures were included (e.g. bathymetry for scour and dredging) were outlined in the main ES or in Volume 7.6 Monitoring Strategy.</p>	<p>Monitoring measures have not been proposed because the model indicates that scour is only likely to be up to approximately 1m (see paragraph 16.6.5 of the ES [REP1-109]) and this would not make a significant difference either to the structure or to the overall condition of the river.</p> <p>As stated in paragraph 15.6.11 of the ES [REP1-110] 'Taking into account the temporary nature of the new temporary jetty</p>

			<p>(up to 4 years) and the low level of SSC concentrations and deposition associated with dredging operations in the context of already high concentrations of SSC in the Thames, the magnitude of Scheme impact during construction would be Negligible and the significance of effect on hydrodynamics and sediment transport in the River Thames Neutral.</p> <p>As the Scheme is not predicting large scale sediment deposition due to the dredging operation there is not considered to be any potential impact on navigation.</p>
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4 PORT OF LONDON AUTHORITY

4.1 Comments on Written Representation

Table 3 - Key issues identified from Written Representation by Port of London Authority (PLA) with TfL’s commentary

Location in Representation	TfL Reference	Interested Party’s Comment	TfL Comment
Para 2.1	WR.PLA.1	<p>The PLA's Relevant Representation, submitted on 30 August 2016, raised concerns about the extent of the Order limits. TfL intends to acquire permanently the land occupied by the proposed tunnel and acquire permanent rights over land surrounding the tunnel (see Land Plans, Paragraphs 5.1.7 to 5.1.9 and Figure 5-1 of the Statement of Reasons [APP-015]. The Order limits as shown on the works plans, which are also the limits of deviation, are wider than the PLA would expect to be justifiable in a project of this sort. Article 5 of the dDCO would authorise TfL to deviate</p>	<p>Detailed design of the scheme has not yet taken place, so a sufficient degree of flexibility is required within the dDCO. As explained in the Applicant's response to FWQ DC.35, the areas in which the authorised works could be situated are constrained by the extent of the land powers shown on the Land Plans. This is illustrated by the plans which the Applicant appended to its response to DC.35. Those plans show that the section of the river in which the tunnel could be located is limited to the area shaded pink over which the dDCO grants a power to compulsorily acquire land.</p>

		<p>laterally from the lines, situations or positions of the authorised development as shown on the works plans to the full extent of the Order limits. Potentially, therefore, the dDCO would allow for individual works to be moved laterally to a significant extent.</p> <p>As owner of the riverbed, the PLA is concerned that the extent of the land and rights to be taken for the tunnel should be the minimum necessary to construct, operate and maintain the tunnel. TfL should have reached a sufficiently advanced design stage that it does not require more than a modicum of flexibility in the extent of the riverbed and adjoining land that may be affected.</p>	<p>The Applicant considers this extent of land is appropriate and that the relevant statutory tests for compulsory acquisition set out in section 122 of the Planning Act 2008 are robustly met.</p>
<p>Para 2.4</p>	<p>WR.PLA.2</p>	<p>The PLA was pleased to note the statement in paragraph 7.6.24 of the ES that "no permanent acquisition of the riverbed is necessary for the construction or operation of the Scheme." However, it is also noted that of the 27 plots of land within the River that are included in the Book of Reference in respect of which the</p>	<p>Paragraph 7.6.24 of the ES was intended to refer to the surface of the river bed, although it is acknowledged that the text does not make this clear.</p> <p>Powers of permanent acquisition over the riverbed are only sought over the subsoil as</p>

	<p>PLA is the owner, only 15 are listed in Schedule 4 to the DCO as land in respect of which only rights may be acquired or restrictive covenants imposed. Accordingly, notwithstanding the statement in the ES, TfL's current proposals place the remaining 12 plots at risk of permanent acquisition and discussions with TfL indicate that (contrary to the ES statement) outright acquisition of the subsoil in which the tunnel is constructed is indeed intended. Additionally, the statement at paragraph 7.6.24 of the ES is not consistent with the Statement of Reasons, which advises at paragraph 5.1.7 that for the Tunnel the Applicant seeks powers to acquire subsoil compulsorily and that this relates to the subsoil within which the tunnel would lie, together with a layer of additional subsoil around the tunnel itself 'exclusion zone.' The exclusion zone would extend upwards for a distance of 6 metres. If the tunnel were to deviate upwards to the full extent of the limits currently proposed in article 5, there would be an approximate minimum cover between the tunnel and the riverbed of 2.7 metres. This would result in</p>	<p>indicated by the plot numbers listed in Schedule 6 to the dDCO which link to article 26 (acquisition of subsoil only). This is consistent with the approach taken with the rest of the tunnel.</p> <p>In terms of the exclusion zone, it is not correct to say that the Applicant could, with the powers as drafted, compulsorily acquire the surface of the river bed. It is clear from column 3 of the table in Schedule 6 to the dDCO that the power of compulsory acquisition is limited in respect of the riverbed plots owned by the PLA to subsoil 0.5 metres below the surface and deeper. This limitation applies to any subsoil acquired under article 26 including the exclusion zone referred to in the Statement of Reasons.</p> <p>It should be noted that the upwards limits of deviation for the tunnel have been reduced in the version of the dDCO submitted at Deadline 1 [REP1-095]. The table in article 5 now provides that the upwards limits for any section of the tunnel which is located beneath the riverbed of the Thames are restricted to</p>
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		permanent acquisition of the riverbed.	1.5 metres and are subject to the proviso that this must not result in the level of the bed of the navigable channel being above 5.8 metres below chart datum.
Para 2.5	WR.PLA.3	Article 23(1) provides that on the permanent acquisition of land, all private rights over the land will be extinguished. Under article 23(2) on the acquisition of rights over, or the imposition of restrictive covenants on, any land, all private rights over the land will be extinguished so far as their continuance would be inconsistent with the exercise of the rights or the burden of the covenants. While there is provision in article 23(7) for TfI to allow rights to continue, it is not apparent where this is expected to occur.	The Applicant notes this comment.
Para 2.6	WR.PLA.4	Paragraph 7.4.55 of the ES refers to a number of moorings within the Order limits and identifies some that will have to be relocated "in agreement with the PLA".	Discussions between the Applicant and the PLA are on-going in respect of the impacts on river users and the restrictions and other measures necessary in the river for the

	<p>However, as can be seen from the Book of Reference, there is a number of people with private rights in the affected plots under PLA-granted river works licences or otherwise and it is not apparent how all these private rights will be affected. Tfl should provide clarification on this matter, both generally and also specifically in the context of provision for the protection of the tunnels sought by Tfl in negotiations on the PLA PPs. As the body responsible under the 1968 Act for granting the licence rights, to place the moorings and other river works, which may be extinguished, the PLA is concerned that the extent of extinguishment proposed and its effects are not stated in the ES and do not appear to have been assessed. The PLA is potentially faced with a number of displaced users who will potentially be seeking alternative facilities or who will not be permitted to remove their licensed works. It is essential that:</p> <ul style="list-style-type: none"> • the interference with private rights is 	<p>protection of the new tunnel.</p>
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	<p>minimised;</p> <ul style="list-style-type: none">• by way of justification of the powers sought, Tfl provides full particulars of its proposals for private rights;• implementation of article 23 takes place in collaboration with PLA;• Tfl indemnifies the PLA (i) against all expenses related to the provision of replacement facilities and licenses and (ii) regarding any financial losses, including third party claims against the PLA; and• where a person would seek to remove a mooring or other licensed work but is unable to do so as a result of the Scheme, Tfl assumes full responsibility for maintaining it as licensee in perpetuity (or for the life of the work) in place of the licensee who has been displaced. <p>The PLA will need to be satisfied by Tfl either that there will be no adverse effects from extinguishing private rights in the way</p>	
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		that is proposed or that any such effect will be fully mitigated.	
Para 3.2 - 3.5	WR.PLA.5	<p>Tfl proposes to acquire permanent rights over and impose restrictive covenants on the land above the tunnel and on either side of the tunnel, including the subsoil up to and including the riverbed. As mentioned in paragraph 2.4, however, the PLA has noted that some of the land within the River could be the subject of outright acquisition and details are requested of the land where rights will be acquired or covenants imposed by Tfl, including details of such rights or covenants.</p> <p>The PLA has noted that only rights may be acquired over, or restrictive covenants imposed on, the plots listed in Schedule 4. Even on the basis of the Schedule 4 plots, however, the extent of the land over which Tfl proposes to acquire permanent rights or impose covenants is wider than appears to be justifiable in order to deliver and maintain the Project. As currently proposed, the acquisition of permanent</p>	<p>The Applicant is discussing the required provisions for the protection of the tunnels with the PLA, including the extent of the land over which restrictive covenants can be imposed, with a view to reaching agreement on these issues.</p>

	<p>rights or imposition of restrictive covenants could result in the effective sterilisation of parts of the riverbed. This would have an adverse and unnecessary effect on River users, especially those needing moorings or other facilities in the River, and would restrict the PLA's ability to perform its statutory conservancy functions (e.g. dredging) in the affected parts of the River. The proposals appear to mean that there would be other areas where TfI would seek to prevent other works being placed in the riverbed, thereby sterilising the affected areas of the River.</p> <p>For example, the Navigational Issues and Preliminary Risk Assessment [APP-054] ("the NIPRA") advises, at paragraph 8.4, that there will be a need to implement navigational rules such as anchoring restrictions within the proximity of the tunnel and that this could extend up to 60m either side of a tunnel. It is not apparent from the dDCO what are the powers by which this is to be achieved or enforced. Neither do the application documents show the justification for a protected area so far</p>	
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	<p>outside the Order limits. However, ignoring these obstacles, Tfl's proposal would require a River user wishing to place works such as moorings in the River or to dredge to obtain consents not just from the PLA and the Marine Management Organisation ("MMO") but also from Tfl.</p> <p>Such an additional consenting process would be unnecessarily restrictive for a River which is already well regulated. The PLA has recommended to Tfl that instead of acquiring permanent rights over the land, Tfl and the PLA should enter into a formal agreement as to what development is possible within the area immediately above the tunnel, and any necessary wider area, without consulting Tfl. The PLA would commit to consulting Tfl on any River Works Licence application relating to development that falls outside the list of agreed developments and take any resulting comments from Tfl into consideration before determining the application. A formal response to this suggestion is yet to be received. However, as Tfl has been seeking to introduce text</p>	
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		into the PLA PPs to protect the tunnels by restricting works and other activities, the indications are that the PLA's proposals will not be agreed by TfL.	
Para 4.3 - 4.6	WR.PLA.6	<p>In short, articles 29 and 30 would potentially enable TfL to exclude all users from a strip of water some 90m wide and stretching the whole width of the River and to continue such interference in whole or in part for a total (assuming the planned programme is achieved) of 11 years.</p> <p>Under articles 29(2) and 30(2) of the DCO, where TfL is in temporary possession the public right of navigation in the affected area is to be suspended. This raises major regulatory and navigational concerns, not only regarding existing river users but also for potential river users. If TfL were to exercise the full extent of these powers the affected strip of the River could be closed to traffic for years, so severing the River above the proposed tunnel from the River below the closed strip, effectively creating two entirely</p>	<p>The Applicant is currently discussing the powers contained in articles 17, 29 and 30 with the PLA with a view to reaching agreement on the extent of these provisions.</p> <p>It should be noted that paragraphs 2 of articles 29 and 30 restrict the temporary possession of the river area under those provisions "to what is necessary" for TfL safely to carry out or maintain the authorised development.</p> <p>As anticipated in the PLA's submission, the Applicant's exercise of the powers of temporary possession in connection with the construction and maintenance of the Scheme would not, in practice, involve the degree of disruption to navigation suggested by the PLA. The Applicant will therefore continue to discuss the extent of these provisions with the</p>

	<p>separate sections of River. The River would also be subject to additional severe disruption for years more. To be able to carry out its operations within both halves of the severed River, the PLA would have to increase the number of vessels it uses, install more moorings, and purchase a second maintenance vessel. Severance would also have a significant negative impact on other River users. For example, waste currently removed from the City of London via Walbrook Wharf would instead have to be transferred by road. Thames Clippers could no longer provide a through passenger service; cruise ships would be unable to access Enderby Wharf; and there would be an impact on other major projects such as the Thames Tideway Tunnel. Even if the powers enabling severance were removed from the dDCO, the PLA would still be concerned that insufficient consideration has been given by TfL to the extent to which its proposed powers would disrupt traffic on the River. The PLA does not consider that such disruption is justifiable.</p>	<p>PLA with a view to reaching agreement.</p>
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	<p>Given that the proposed River crossing is a bored tunnel rather than, say, an above-ground structure, and given the significant implications for River users of complete, long-term, or frequent River closures, the PLA cannot see that such severe measures are necessary. The powers sought by Tfl should be limited to those necessary to carry out and maintain the authorised development. Tfl may well say that the powers as expressed are already limited to what is necessary for the Scheme and that their anticipated use will not be as extensive as the full potential of these provisions indicated. In the PLA's submission any suggestion that the powers will be required on a more limited basis acknowledges that what is proposed is unjustifiably wide. Tfl should be required to demonstrate what will be justified by the needs of the Scheme and the powers over the River sought in the dDCO should be limited to that.</p> <p>The PLA has noted that Tfl is considering what is actually needed in relation to this and the proposed article 17 (see below).</p>	
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		<p>While this is undoubtedly welcome, it might be supposed that these issues had been addressed when the dDCO was framed. In the PLA's submission, TfI should be put to strict proof of the need for and projected operation of these powers.</p>	
<p>Para 4.7 - 4.10</p>	<p>WR.PLA.7</p>	<p>So far as specific works are concerned, the PLA has various concerns about Work No. 20, which will take place within an area of land identified for temporary possession. This work is an authorised work described in Schedule 1 as consisting of a temporary jetty on the north side of the River in "the area known as Thames Wharf" (but the area is not defined) for the transportation of materials associated with the construction of the Scheme. Work No. 20 would include dredging works, construction operations (including pilling, scouring and scour protection) within the River and associated strengthening works of the existing river wall.</p> <p>The verbal description in Schedule 1 says that Work No. 20 is "shown" on sheet 3 of</p>	<p>The Applicant is currently discussing the description of Work No. 20, together with the relevant works plan, with the PLA with a view to agreeing proposed amendments to both of these elements.</p>

	<p>the works plans, but it is not so shown. All that appears on the plans is an area marked "Work No. 20" and enclosed by a "scheduled works boundary". The size of the enclosed area (more than 22,000 sq m) is far too large for the location of the temporary jetty to be identifiable within that area. In relation to Work No. 20, therefore, the works plans are not compliant with regulation 5(2)U(i) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009.</p> <p>Plans apart, it is not clear to the PLA why such a wide area is sought for Work No. 20 nor why the location of the jetty is not shown on the plans: the location was clearly shown in the NIPRA (see para 2.3.1 and Appendix G) and the NIPRA is clear at paragraph 6.2.1 that in order to eliminate or reduce navigational hazards "the design and in river footprint of the temporary jetty was minimised so that intrusion into the river is minimal and set back from the authorised channel by a minimum of 15m" and "the location of the temporary jetty so not to impede the entrance to Bow Creek</p>	
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	<p>because of the increased risk to river traffic manoeuvring the entrance and the location of a shoal close to the entrance of Bow Creek." It is therefore not acceptable in practical terms for the temporary jetty to be undefined because the dDCO as drafted would allow TfL to place the jetty anywhere within the work's boundary. This could include the temporary jetty being constructed in too close proximity to the Royal Victoria Dock outfall; the navigable channel; or in a location which would impede navigation of vessels going in and out of Bow Creek (the tidal reaches of the River Lee). It is essential that the temporary jetty is placed in an area that does not interfere with existing works, sightlines, the navigable channel or with movement of vessels between the River and Bow Creek. The fact that the works will be subject to the PLA's approval of detailed design (see PLA PPs paragraph 31) does not resolve the problem of a lack of definition.</p> <p>The PLA therefore submits that TfL must limit and clearly define the position and</p>	
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		<p>alignment of Work No. 20;the water area, within which dredging is proposed (see section 10 below for further detail); the jetty and the existing Not Always Afloat But Safely Aground (NAABSA) berth. In the PLA's submission TfL should also be required to demonstrate that the proposed works boundary (which also appears to be the lateral limit of deviation) is justifiable as being required for Work No. 20 and that the size of the area of the work has been kept to a minimum.</p>	
<p>Para 5.1- 5.6</p>	<p>WR.PLA.8</p>	<p>The PLA is particularly concerned about the vertical limits of deviation as relating to the tunnel. As currently drafted, article 5 of the dDCO would permit upwards vertical deviation of 3 metres from the levels shown on the engineering section drawings and plans for Works Nos. 1(a), (b), (c) and (e), which include the cut and cover sections of the tunnel, the bored tunnel and the launch chambers. The sections show Work No. 1 passing beneath the River at depths in the approximate range 5.7m to 14.3m below the riverbed. Work No. 1</p>	<p>The Applicant amended article 5 in revision 1 of the dDCO submitted at Deadline 1 [REP1-095].</p> <p>The amendment provides that the upwards limit of deviation are limited to 1.5m in respect of works under the Thames, subject to a proviso that any deviation must not result in the level of the river bed being raised above a specified level (taking account of the level of cover required above the tunnel). The Applicant has made this amendment as a result of discussions with the PLA but cannot</p>

		<p>therefore is shallow and will be close to the riverbed.</p> <p>Were the tunnel to deviate upwards to the full extent of the limits currently proposed in article 5, there would be an approximate minimum cover between the tunnel and the riverbed of 2.7 metres. This would further compromise an already restricted level of cover over the tunnel. As previously highlighted by TfL in their consultation documentation (see paragraph 4.5 of the Further Development of Tunnel Engineering Report by Mott MacDonald July 2013), the usual cover required for a bored tunnel is one times the tunnel diameter (i.e. in this case 12.3m), but it is recognised that this will not be achieved for the Silvertown tunnel due to the physical geography of the site. However, it is essential that the upwards limit of deviation is reduced to a minimum to maximise the distance between the tunnel and the riverbed.</p> <p>If the current proposals are retained, the</p>	<p>further limit the upwards limit of deviation.</p> <p>The Silvertown Tunnel is at a preliminary level of design definition suitable for the identification of construction impacts and application, via the DCO, of various land and other powers required for its construction and operation. The final design of the Scheme is subject to a detailed design process, as has been described more fully in the documents accompanying the application for the DCO. The detailed design process may result in a need for the tunnel internal size, its location – through its required vertical alignment - and tunnel structural lining thickness to change.</p> <p>Furthermore, this large tunnel will be constructed through varied geological strata comprising clay, sands and gravels which may present construction hazards whose risks can be mitigated, in part, by alignment deviation. The detailed design and</p>
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	<p>placing of artificial cover on top of the riverbed may be required (as has become necessary elsewhere on the River, notably at Rotherhithe tunnel). The description of the authorised development appears to be wide enough to allow for this (although such cover is not explicitly assessed in the ES).</p> <p>If artificial cover were to be placed above the Silvertown tunnel it would permanently reduce the available depth of water in the River and compromise the PLA's ability to maintain or improve the depth of navigable channel in this reach of the River. This would restrict future navigation over the affected stretch of the River to shallow draft vessels and in consequence limit the current public right of navigation. The PLA is seeking confirmation from TfL as to what level of tunnel cover would trigger the need to install additional cover protection, but TfL has not yet provided this information. Currently, the main limiting factor on depth in this reach is the sill of the Thames Barrier (9.15m below Ordnance Datum or 5.8m below Chart Datum) and the PLA</p>	<p>construction processes will be developed to ensure the tunnel is suitable for its intended use, and can be constructed both economically and safely. In order to achieve these objectives, flexibility in the Silvertown Tunnel's final alignment is conventional and necessary. Whereas commonly the flexibility for a proposed tunnel at this stage of planning development to deviate upwards might be 3m (for a rail transportation tunnel of approximately 6m or less – see, for, example, the DLR Stratford International Extension, the Victoria Station Upgrade and Crossrail), as was originally proposed for the Scheme, in light of the particular alignment constraints of the Scheme a reduction to 1.5m upwards is proposed, some 10% of the tunnels' diameter. This is considered reasonable and appropriate.</p>
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	<p>needs to have the ability to achieve this depth of 5.8m below Chart Datum. If this depth could not be achieved it could inhibit future shipping by restricting the size of vessels that can navigate over the tunnel. It could also severely compromise the PLA's ability to continue with its programme of statutorily empowered dredging that is required to maintain the navigation channel in the River. Furthermore, there is already a height restriction in place in this part of the River because of the Emirates Airline cable car. For particularly tall vessels, operation of the cable car has to be suspended and cable cars removed. If the depth of 5.8m below Chart Datum is not achieved in the River above the tunnel - which itself passes directly below the cable car - then the Scheme will reduce the tidal window for the passage of tall vessels.</p> <p>In summary, if the upward limit of vertical deviation remains as currently proposed, there is a real risk that the shallowness of the tunnel will impede navigation. On the assumption that the vertical alignment of</p>	
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	<p>the tunnel cannot alter significantly, the solution must be to reduce the upward limit of deviation. The PLA's view is that a reasonable balance between the needs of the Scheme and the need to preserve the public right of navigation would be to set the vertical limits of deviation at 0.5m.</p> <p>The PLA is in discussion with Tfl on this matter and it is anticipated that Tfl will be able to maintain a depth of tunnel sufficient to ensure that river bed level in the main navigable channel plus a buffer zone either side is never restricted to less than 6.3m below Chart Datum (i.e. 5.8m for navigation plus the usually applied 0.5m for over-dredge). However this would not address the issue of sterilisation of the riverbed through Tfl seeking to restrict the PLA's ability to grant a licence for works or dredging outside of the navigable channel and buffer zone. Dredging by its very nature affects the depth of the river bed and the PLA seeks to direct new works, which may well have associated dredging, to be outside of the navigable channel plus</p>	
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		15m.	
Para 6.1 - 6.2	WR.PLA.9	<p>The southern tower of the Emirates Air Line cable car stands in the River in front of Olympian Way, directly opposite Thames Wharf and within the Order limits. The impact protection pontoons protecting the tower (which are river works licensed by the PLA) are within plot no. 04-016a. The pontoons perform an essential safety function which benefits not only the owner of the cable car but also other River users. Without this protection in place the tower could not be allowed to remain in the River. If the protection is damaged the cable car would not be allowed to operate.</p> <p>The PLA is concerned that the proposed works in the River may result in these pontoons being damaged or requiring alteration. Because of the potentially serious effects of such damage on safety in the River and the continued operation of the cable car, the PLA submits that TfL should be required to demonstrate how the integrity of the pontoons is to be preserved</p>	<p>The Applicant would agree that designed ship impact protection pontoons located toward the south (southwest) bank of the River Thames, are an integral part of TfL's/ Emirates Airline cable car system, and have a keen interest in ensuring its continuous and safe operation.</p> <p>The planned works in the River Thames by the Applicant for the Silvertown Tunnel Scheme for construction of a temporary jetty (if selected by the Contractor), are on the north (northeast) of the river, approximately some 300 metres away. Maintenance works to reinstate the existing NAABSA being similar proportions.</p> <p>Works to relocate existing navigational mooring buoys is expected to be undertaken by, and under the supervision of the PLA.</p> <p>The use of the river (including use by marine equipment required for the Scheme's</p>

		<p>and the nature of any necessary alterations. While the operation of the cable car is not in itself a matter for the PLA, the PLA has a direct interest as the authority responsible for safety in the River and the maintenance of works in or (such as the cable car) over the River on a basis that preserves public safety.</p>	<p>construction) is controlled by the PLA. In TfL's extensive engagement with the PLA on such issues (as is scheduled in the SoCG), the need for a Navigational Risk Assessment has been identified as a mechanism by which PLA can ensure risks of marine use on the river are adequately controlled. Schedule 13 Part 4 of the dDCO [REP1-095] includes protective provisions for the PLA. The Applicant must submit plans including the Passage Plan (which will include a navigational risk assessment) of the specified work for the approval of the PLA.</p> <p>Whilst usually prepared and submitted to PLA closer to commencing river use, TfL have prepared a draft of this document, known as the 'Navigation Issues and Preliminary Risk Assessment ('NIPRA') [APP-054] and submitted this with the DCO application to reflect the preliminary design stage, having discussed its contents with the PLA. An updated navigational risk assessment will also form part of the Passage Plan to be submitted to the PLA for approval prior to commencing river use as secured in the Code of Construction Practice [REP1-119]</p>
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			<p>paragraph 3.2.14.</p> <p>Together the NIPRA, the dDCO and specifically the Protective Provisions for the benefit of PLA, addresses the need to maintain operation of all navigable interests in the Thames, and will address PLA's requirements to mitigate risk of damage to pontoon impact protection.</p>
<p>Para 6.2</p>	<p>WR.PLA.10</p>	<p>(Re: Emirates Airline) Additionally, should the Licensee wish to determine the river works licence relating to these works so as not to have any ongoing obligations, they are required to remove all works from the River. TfI is however looking to prohibit the PLA's ability to grant a licence permitting the removal of any mooring or anchor (but not any other river work) that is within the bed of the River Thames if there is the prospect that in doing so a zone around the tunnel could be disturbed. It seems probable that this would prevent removal of the cable car. This potential for forcing works to be left in the River cannot be justified and the dDCO should be amended</p>	<p>The Applicant is currently discussing the required provisions for the protection of the tunnels with the PLA, including the extent of the land over which restrictive covenants can be imposed.</p>

		to ensure that this cannot occur.	
Para 6.3 moorings	WR.PLA.11	<p>The second concerns the physical impact of the authorised development on the PLA's existing mid-stream Victoria Dock Barge Roads (Upper) and Victoria Dock Barge Roads (Lower) moorings adjacent to Victoria Docks, which are provided for use by commercial river users. The Upper mooring is in permanent use, and the Lower is used very heavily. As a result of the Scheme the Upper mooring will need to be temporarily relocated and the Lower will need to be relocated permanently due to its position directly above the tunnel. These moorings are very substantial structures with fixings around 5m deep although due to the way that moorings are installed, the exact depth is unknown. TfL has told the PLA that it fears removal of these fixings could cause damage to the tunnel or destabilise the surrounding ground. TfL wants to take control as to whether the fixings are ever removed. This leaves the risk that, as silt moves in the River over time, the cut-down fixings may become exposed</p>	<p>The Applicant in responding to ExA's First Written Question (DN2) has explained why the Victoria Dock Barge Roads (Upper) moorings will be unavailable for use during construction of the temporary jetty and associated dredging works which, for safety reasons, includes an exclusion zone during the works (should the jetty be found necessary by the Contractor).</p> <p>The Applicant will make alternative provision available for this mooring, throughout the jetty construction, operation and decommissioning processes. Through the Protective Provisions for the PLA [REP1-095, page 148], the Applicant is required to submit detailed design (including details of relocation of moorings) for approval.</p> <p>Furthermore, Paragraph 40 of the protective provisions for the PLA ensure that any reasonable costs incurred by the PLA for temporary or permanent resiting of moorings will be paid for by TfL. (The Applicant would confirm that constructive discussions on the</p>

		<p>and become a hazard to navigation.</p>	<p>content of the Protective Provision are ongoing with the PLA).</p> <p>The Victoria Dock Barge Roads (Lower) mooring is situated (in plan) in close proximity to the Reference Design alignment of the proposed Silvertown bored tunnels. The depth of the mooring's foundation cannot be confirmed by PLA, therefore the Applicant may require the foundation to be removed to minimise the possibility of a physical obstruction being present to the future path of the TBM constructing the tunnels.</p> <p>The Applicant is concerned for the way in which the PLA have indicated they may remove the mooring foundation (their normal custom and practice, which clearly is appropriate elsewhere) which involves pulling the foundation to failure by boats tethered to the foundation on a rising tide. The Applicants concern in this regard is that a cone of river bed (variably Terrace Gravels and stiff London Clay in this case), surrounding the foundation could be significantly disturbed.</p>
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			<p>The ground in immediate contact and adjacent to the thin and flexible segmental tunnel lining in this location, plays a very important function in maintaining stabilising confinement to the tunnel and providing its structural integrity.</p> <p>In addition to which, a cone of ground failure created by mooring foundation removal in this manner could provide a path of preferential weakness between the river bed and tunnel boring machine during construction, giving rise to other construction hazards.</p> <p>For these reasons the Applicant wishes to have certain flexibility as to whether the mooring foundation is removed or not – consequent on the final designed tunnel location (its horizontal & vertical alignment), and the results of possible further investigation results as to the mooring’s foundation configuration.</p> <p>The Applicant would note that in discussions with PLA on this matter, we are advised that PLA regularly break components of mooring</p>
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			<p>'screw pile' foundations, which we understand results in leaving fixings exposed as a hazard to navigation elsewhere in the river.</p> <p>In this location (where our surveys in close proximity suggest little river bed silt, rather stiff London Clay), should it be necessary to remove the Lower mooring foundations, then care would be taken by the Applicant to ensure foundation stems are suitably cut down so as to minimise the future risk to navigation.</p>
<p>Para 6.4 Moorings</p>	<p>WR.PLA.12</p>	<p>The PLA is also concerned about the lack of clarity regarding the reinstatement of the Upper mooring and the relocation of the Lower mooring. The Upper mooring should be reinstated at its current location, but the PLA has received no reassurance that it will be so reinstated. This leaves uncertainty as to the position of the mooring in the long term. That is not commercially viable for the current tenant, who has used the mooring for nearly 20 years and who would want to continue using it. The PLA recognises that</p>	<p>The need for the Upper mooring to remain temporarily out of use for part of the Silvertown Tunnels construction period is in connection with the need to establish an exclusion zone for the construction of the temporary jetty and associated dredging, its operation and the jetty's decommissioning (should the jetty be found necessary by the Contractor).</p> <p>The powers sought through the dDCO to be able to construct the jetty have been taken so</p>

		<p>reinstatement of the Lower mooring is not possible due to the position of the current Lower mooring above the tunnel, so it is seeking permanent relocation of this mooring as close to the lower side of the tunnel as possible, which would be approximately 45m downriver from its current location. The PLA has not yet had any assurance that such relocation will be possible, given the restrictions TfL is seeking.</p> <p>The PLA has discussed these issues with TfL, which has yet to make clear its intentions regarding the barge moorings, and a solution is not yet in sight. In the absence of the agreement that the PLA hopes will be reached, the PLA will be constrained to make further representations about this issue, both in terms of a formula to avoid risk and provision for TfL to be responsible for any financial consequences of leaving cut-down fixings in place.</p>	<p>as to ensure that the transportation of materials for the Scheme as a whole by road can be minimised. The way in which this is achieved (and the Applicant's river use commitment achieved or exceeded) will be developed by the Contractor according to his detailed methods proposals.</p> <p>In the event the jetty is not required and not constructed, the Upper mooring need not be taken out of use during Silvertown Tunnel construction, and may remain exactly in its current location.</p> <p>In the event the jetty is constructed, the Upper mooring will be unavailable during the Silvertown Tunnel construction period (and an alternative buoy, relocated away from the works, provided to a suitable position on a temporary basis). Thereafter there is no reason that the Upper mooring cannot be relocated in exactly the current location it now occupies.</p>
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			<p>The Lower mooring may need to be relocated, as has been correctly identified. The Applicant understands from dialogue with the PLA that this relocation is possible. The new location will be selected by PLA to meet their navigational requirements, but will need to be located in such an arrangement so as not to threaten the integrity of the proposed Silvertown Tunnels in their final designed location.</p> <p>Through the Protective Provisions for the PLA [REP1-095, page 148], the Applicant is required to submit detailed design (including details of relocation of moorings) for approval of the PLA.</p> <p>Furthermore, Paragraph 40 of the protective provisions for the PLA ensure that any reasonable costs incurred by the PLA for temporary or permanent re-siting of moorings will be paid for by TfL.</p>
<p>para 7.1 Article 17</p>	<p>WR.PLA.13</p>	<p>Article 17(1) of the DCO would authorise TfL "to temporarily interfere" with the "river area" in connection with both construction</p>	<p>The Applicant is currently discussing the powers contained in articles 17, 29 and 30 with the PLA with a view to reaching</p>

		<p>and maintenance of the authorised development. Article 17(2) would allow the mooring or anchoring of vessels and their loading and unloading in any part of the river area, including the navigable channel. "River area" is defined in article 2 to comprise all the plots in the River that are shown on the land plans, i.e. all the River that is within Order limits. In fact, it is understood from Tfl that this is not what is really intended and that in fact the powers are sought solely in connection with Work No. 20. The PLA submits, therefore, that if article 17 remains in the dDCO, the purpose for which any of the article 17 powers may be used should be limited to Work No. 20. Following from that, the "river area" should be limited to the area that Tfl can demonstrate is required for that work (see paragraph 4.9 above).</p>	<p>agreement on the scope of these provisions.</p> <p>The Applicant does not expect the works to cause any significant level of disruption to navigation in the river.</p>
<p>Para 7.2 Article 17</p>	<p>WR.PLA.14</p>	<p>Unlike article 30, in article 17 "maintenance" is not time limited to a specific period. The article 17 maintenance powers would therefore apply at any time. "Maintenance" is defined in article 2. In</p>	

		<p>particular, the definition includes alteration, removal and reconstruction. While this is a standard definition, it is aimed at what an undertaker can do to its own works. By contrast, as applying in article 17 it relates to the trigger for interfering with the public right of navigation. In the PLA's submission, even if - contrary to the PLA's belief - the article 17 powers can be justified in relation to construction, there can be no justification for such wide ranging powers to be available for maintenance.</p>	
<p>Para 7.3 Article 17</p>	<p>WR.PLA.15</p>	<p>Article 17 does not make clear what is meant by "interfere". However, article 17(2) would allow the mooring or anchoring of vessels and their loading and unloading in any part of the river area, including the navigable channel. Such a wide ranging power is neither proportionate nor justifiable. It would have significant adverse implications for River users, navigational safety and the exercise of the PLA's statutory functions. As such it is completely unacceptable and should be struck out of</p>	

		the DCO.	
Para 7.4 Article 17	WR.PLA.16	The PLA is the statutory authority responsible for navigation in the River. It is therefore surprising that article 17 does not envisage the PLA playing any part in the operation of article 17, whether as a consenting body or as enabling its implementation by issuing directions to those navigating in the River. Without such provision, article 17 cannot be made to work.	
Para 7.5 Article 17	WR.PLA.17	Articles 17(4) and (5) are inadequate to safeguard affected River users. The protection it offers is limited to owners of moorings, vessels or structures and it presupposes that alternative facilities will be available. The absence of any provision for users who are not owners and the need for owners to replace their facilities mean that the PLA can expect an influx of applications to use its facilities or to place new facilities in the River. This could only be dealt with through forward planning.	

		That in turn would call for Tfl to provide clear details of how article 17 is to be implemented. And Tfl would have to meet the resulting costs to the PLA.	
Para 7.6 Article 17	WR.PLA.18	However, as matters stand Tfl has told the PLA that it cannot be specific about the working of article 17 and is uncertain how it will operate, particularly in conjunction with the temporary possession powers in articles 29 and 30, which would apply throughout the river area. It is evident from this that Tfl does not know how it is going to operate the wide powers it is seeking, nor even if it really needs them. In the PLA's submission article 17 cannot properly be included in the dDCO on this basis.	
Para 7.8 Ancillary related works	WR.PLA.19	At the end of Schedule 1 to the dDCO there is an exhaustive list of ancillary or related development which would be authorised. The items relating to the River are paragraphs (e) to (l). These are very wide powers, including dredging and	

		<p>constructing works and other structures in the River. They would be exercisable in the 'river area' as to which see paragraph 7.1 above. Nothing in the application reveals what ancillary works are contemplated. The PLA appreciates that to an extent this is the nature of ancillary works. However, given such wide powers, TfL could significantly interfere with the River in the ways which are not ascertainable, but which could have a very significant impact. The failure to tie the authorised development to what has been assessed in the ES compounds the problem. In PLA's submission this is not an acceptable situation and could well be ultra vires. At least part of the solution will be to impose a requirement regarding adherence to the ES. More directly, the description of the ancillary works should be tightened up so that the permitted works are ascertainable. The PLA would be glad to assist TfL with appropriate drafting.</p>	
<p>Para 8.2 Protective</p>	<p>WR.PLA.20</p>	<p>The PLA has no in principle objection to replacing these provisions of the 1968 Act</p>	<p>As noted, the Applicant and the PLA are in the process of discussing the form of the</p>

<p>Provisions</p>		<p>with the PLA PPs. This approach has been successfully applied in other comparable schemes and, as identified at paragraph 12.2.1 of TfL's Statement of Reasons, the PLA is in discussions with TfL regarding the specific wording of the PLA PPs. The PLA expects TfL to address its comments on the dDCO, but although some progress has been made, the protective provisions are not yet adequate. The PLA would expect the protective provisions within the Thames Water Utilities Limited (Thames Tideway Tunnel) Order 2014 ("the Thames Tideway Tunnel Order") to represent an appropriate starting point for the protective provisions in this DCO.</p>	<p>protective provisions, together with other dDCO drafting points with a view to reaching agreement on these issues.</p> <p>The Applicant notes the comment in respect of the Port of London (Consolidation) Act 1920 and will give this due consideration and make any necessary amendments to the dDCO in due course.</p>
<p>Para 8.3 Protective provisions</p>	<p>WR.PLA.21</p>	<p>Article 3(1)(d) of the dDCO seeks to disapply the Port of London (Consolidation) Act 1920. It appears from the table in paragraph 6.2 of the Explanatory Memorandum that the Applicant believes the 1920 Act to contain provisions dealing with maintenance obligations. Much of the 1920 Act having been repealed before 1968, all that was left was repealed by the</p>	

		<p>Port of London Act 1968 (s.208 and Part 1 of Schedule 9). The repeal was subject only to a saving for section 68 of the 1920 Act (1968 Act, s.209) which (see 1968 Act, Schedule 10) relates solely to an exemption from rates for lighters and certain other craft. This provision is irrelevant to the dDCO and disapplication would be both ineffective and ultra vires the Planning Act. Article 3(1)(d) must therefore be omitted.</p>	
<p>Para 8.5 - 8.7 Protective provisions</p>	<p>WR.PLA.22</p>	<p>Paragraph 36 of the PPs provides protection for the PLA in respect of the PLA's moorings and buoys that are affected by the authorised development. The PLA is content with paragraph 36 as it stands in the dDCO. In the course of the discussions with TfL, the PLA have been shown additional provisions that TfL wishes to include to add to the PLA PPs to prevent the PLA from removing the Barge Roads (Lower) mooring (see paragraph 6.3 above) without TfL's consent. This change would protect TfL's interests, not the PLA's. It is not accordingly a protective provision</p>	<p>The Applicant rejects the suggestion that it has not "developed its proposals properly or worked out how it plans to carry out the authorised development".</p> <p>As stated elsewhere, the Applicant and the PLA are discussing the form of the protective provisions, together with other dDCO drafting points, including provisions for the protection of the tunnels, with a view to reaching agreement on these issues.</p>

	<p>but would make the Order more onerous on the PLA. The PLA has not agreed this material change. When putting this amendment forward TfI said it might also want to restrict the use of the Barge Roads (Upper) mooring. The PLA has not agreed this further change.</p> <p>TfI has also proposed detailed provision in the PLA PPs to restrict the PLA's exercise of its licensing powers under the 1968 Act. The proposed restrictions are designed to protect the tunnel by preventing the installation and removal of works and dredging affecting the riverbed. This, too, is not a protective provision and has not been agreed by the PLA.</p> <p>As with article 17, these proposed changes appear to be examples of TfI not having developed its proposals properly or worked out how it plans to carry out the authorised development. The PLA is perfectly prepared to discuss with TfI how best to deal with the barge moorings and tunnel protection, and to enter into a formal</p>	
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		agreement, but it opposes provision in the Order, certainly in the terms proposed to it by Tfl.	
Para 9.2 Other Draft DCO issues	WR.PLA.23	Through the ExA's FWQs the PLA has clarified a number of issues that it considers call for amendment of the dDCO. The issues are significant and are dealt with at length in the PLA's responses to FWQs. The fact that this material is not repeated in these Written Representations does not make the issues any less important. The relevant responses relate to questions, DC1, DC5, DC14, DC17, DC19, DC31, DC34, DC44, DC46, DC49, DC52, DC90, DC106, HT3, ME?, ONS, DN6, DN8, DN11 and DN13, all of which should be treated as incorporated into these Written Representations.	The Applicant has commented separately on the PLA's responses to FWQs.
Para 10.2 -10.4 Dredging	WR.PLA.24	The ES states that a maximum volume of approximately 60,170m ³ of material will be removed by backhoe or grab dredger over an area of 27,200m ² during a period of up to two months as part of the	As stated elsewhere, the protective provisions for the benefit of the PLA are the subject of ongoing discussions between the parties. This includes discussion as to the appropriate

	<p>construction of the temporary jetty (Work No. 20). The bed depth will be lowered by a maximum of three metres (including 0.5 metre over dredge). The method of removal significantly reduces the potential for environmental effects.</p> <p>The ES states that the need for maintenance dredging is unlikely, based on the usage of the temporary berth, but there are powers under the DCO to carry out maintenance dredging. If it is required, maintenance dredging will be undertaken by water injection dredging and will fall under the restrictions outlined in the ES and Code of Construction Practice.</p> <p>The PLA acknowledges that dredging will be required, but the protections for the PLA need to be sufficient. Dredging should be limited to taking place outside the authorised channel (otherwise known as the navigable channel) which, for certainty's sake, should be defined as being the area between the pair of pecked lines on PLA Chart 322 Blackwall Reach to</p>	<p>protection for the PLA in relation to dredging.</p>
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		<p>Bugsby's Reach, as appended to these Written Representations. The protections for the PLA should include appropriate monitoring and surveying of River depths to enable adequate lead in times should the need for maintenance dredging arise. It is hoped that this can be achieved via the PLA PPs.</p>	
<p>Para 11.3 11. Project River use - waste transport and storage</p>	<p>WR.PLA.25</p>	<p>The PLA is supportive in principle of maximising the use of the River during construction and welcomes the commitment within the application documents that TfL has given to River use. However, the PLA considers that during the detailed design process, TfL should fully investigate all opportunities to utilise the River, including the movement of tunnel segment linings and to commit to using the river where those investigations find that river use is practical.</p> <p>In addition, river use should always be planned on the basis of proper need. It is not sensible, for example, to transport waste for disposal that can feasibly be</p>	<p>The Applicant has considered comments made by the PLA previously and committed in section 3.2 of the Code of Construction Practice (CoCP) [REP1-119] to maximising use of the River Thames to transport materials to and from the scheme's sites. However, the Applicant will not be in a position during the DCO examination to commit to findings of the detailed design process because the detailed design process will not commence until the DCO, if granted, is made. The commitment to transport at least 55% (by weight) by river provides a challenging, but achievable, target for the contractor.</p> <p>The Applicant agrees that the use of the River</p>

	<p>stored and permanently disposed of in the Silvertown area, which the PLA understands to be a real possibility connected with the proposed Quintain development at the former Carlsberg Tetley site, which adjoins Thames Wharf. In the PLA's submission it is also important that desirable river use should not be such as to give rise to undesirable increased associated transport by road. So, for example, possible uses of wharves within 4km of the Silvertown site (see CoCP paragraph 3.2.4) will not be sensible if that distance, measured as the crow flies, is in fact a journey distance in excess of 4km by road or if the journey route goes through already congested areas. The PLA's policy supporting river use is designed to minimise the environmental impacts of transport, not to add to transport impacts on land. These opportunities for river use should also be balanced against the long- term impacts on occupiers of affected wharves and other affected River users, as to which see section 13 below.</p>	<p>should be based upon proper need. Should the opportunity arise for re-use of material on site then clearly the Applicant would explore its feasibility. The Applicant revised paragraph 3.2.4 of the CoCP at Deadline 1 [REP1-119] to ensure that this re-use opportunity could be taken into account in the framework of the River Transport commitments. However, it is noted that the proposed development at the former Carlsberg Tetley site is not committed (i.e. does not have planning permission). Therefore, it would be premature to include proposals, including assessing the environmental impacts, in the dDCO to re-use spoil on site on the basis of Quintain's aspirations.</p> <p>The Applicant has made provision for the use of wharves within 4km of the worksite so as to maximise potential river transport opportunities from the Greenwich work site – which does not have direct river access. Direct river access was not provided on the Greenwich worksite as it was considered that the additional land take required was not justified by the needs of the scheme. The</p>
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			<p>Applicant is therefore surprised that the PLA is discouraging the Applicant from attempting to utilise the existing wharf facilities to enhance river transport opportunities – the Applicant would welcome suggestions from the PLA if it considers there are better suited sites.</p> <p>The Applicant has already committed to agreeing construction traffic routes via the Construction Traffic Management Plan with the relevant local authority in the CoCP. The Applicant considers that the relevant local authority is the competent authority with which to agree construction traffic routes.</p>
<p>Para 11.5 Project River use - waste transport and storage</p>	<p>WR.PLA.26</p>	<p>The PLA is concerned that there are no measures in the CoCP for the minimisation of spillage arising from the loading of vessels or barges with spoil and would expect to see such measures to be incorporated in a revised draft CoCP.</p>	<p>The Applicant shares the view that there should be measures for the minimisation of spillage arising from the loading of vessels or barges.</p> <p>However, the measures controlling these activities are contained within Schedule 12 – Deemed Marine License (dDML) of the draft Development Consent Order (dDCO) [REP1-095] not the Code of Construction Practice</p>

			<p>(CoCP) [REP1-119].</p> <p>Para 5 of Part 2 of the dDML contains the requirement for the Contractor to produce a “marine pollution contingency plan”. This plan must set out the Contractor’s assessment of the likely risks which could arise as a result of a spill or collision during construction and operation of the authorised development and the methods and procedures the licence holder intends to put in place to address them.</p> <p>The dDML must be approved by the Marine Maritime Organisation (MMO) before licensed activities can commence. Article 5 (3) of the dDML requires that the MMO must consult the Environment Agency and the Port of London on the marine pollution contingency plan before approving it.</p>
<p>Para 11.6 Project River use - waste transport and</p>	<p>WR.PLA.27</p>	<p>The PLA has been pleased to note that TfL proposes PLA involvement in the preparation of the Passage Plan (Requirement 5(2)(n)). However,</p>	<p>The Code of Construction Practice (CoCP) has been updated for Deadline 1 [REP1-119] and now includes the provision that the</p>

<p>storage</p>		<p>consultation alone (as is proposed) is not sufficient when the management of the proposed number of construction-related vessel movements will be a PLA responsibility. Similarly, any Construction Site River Strategy (Requirement 5(2)(f)) must affect the River, and so will directly impinge on the PLA's functions. As mentioned in paragraph 9.1 above, the PLA aims to produce specific proposals for appropriate strategy and similar documents and the appropriate level of PLA participation in each.</p>	<p>Passage Plan must be approved by the PLA.</p>
<p>Para 12.1 Use of Wharves</p>	<p>WR.PLA.28</p>	<p>The PLA disagrees with the statement at paragraph 2.7.2 of the NIPRA that the temporary structures to be constructed as part of the works would not encroach upon the navigable channel. Related to this is serious concern that, as currently drafted, mitigation measures related to these works are not guaranteed as legally enforceable commitments. The PLA's view is that the design and in-river footprint of the temporary jetty should be such that intrusion into the River is minimised with</p>	<p>The Applicant is discussing the description of Work No. 20, together with the relevant works plan, with the PLA. It is hoped that proposed amendments to both of these elements will provide the PLA with sufficient comfort.</p>

		<p>the jetty being set back from the navigable channel by a minimum of 15 metres. Further, as explained earlier the location of the temporary jetty must not impede the entrance to Bow Creek or adversely affect sightlines. As currently proposed there is nothing limiting where the jetty is placed within the Work No. 20 works boundary or where any other temporary structures would be located. While the PLA's approval of plans will be required (DCO Schedule 13, paragraph 31) its ability to refuse approval and refuse approval is limited.</p>	
<p>Para 12.2 Use of Wharves</p>	<p>WR.PLA.29</p>	<p>The proposed jetty is to be constructed using both vibratory and percussive piling methods. It is also noted that on decommissioning, the piles would be extracted by vibration or cut off one metre below the bed level. It should be emphasised that, if intended to be temporary, the jetty should be designed as such from the outset to minimise the risk of piles not being fully extracted and leaving redundant stumps in the riverbed that may</p>	<p>As stated elsewhere, the protective provisions for the benefit of the PLA are currently under discussion between the parties with a view to reaching agreement on a range of issues, including residual structures. Amendments have already been made to the protective provisions in this regard in revision 1 of the dDCO submitted at Deadline 1.</p> <p>In respect of legacy opportunities presented by the jetty, the Applicant is prepared to</p>

		<p>affect future development. The liabilities associated with any structures left in the river bed must be addressed by TfL. Additionally, there may be legacy opportunities associated with the retention of the jetty and these should be fully explored with the PLA at the appropriate time. TfL has agreed that these should be fully explored with the PLA at the appropriate time. The PLA believes these discussions should go further than exploration and that any legacy opportunities should be exploited as far as possible.</p>	<p>explore these with the PLA and help facilitate discussions between the relevant landowners at the appropriate time.</p>
<p>Para 12.4 Peruvian Wharf</p>	<p>WR.PLA.30</p>	<p>Peruvian Wharf is a safeguarded wharf. It is to be reactivated by the PLA in accordance with planning policy for river borne cargo handling operations as set out in policy 7.26 of the London Plan. It is therefore imperative that the proposed authorised development maintains an appropriate road access to and from Peruvian Wharf.</p>	<p>The closest local access to Peruvian Wharf is via the junction between North Woolwich Road and Silvertown Way to the east of the site, which would remain unaffected during both the construction and operation of the Scheme.</p>

		<p>TfL proposes to stop up part of Dock Road. This would remove the direct route from Peruvian Wharf to Tidal Basin Roundabout and the main highway network, leaving the only alternative of travelling in the opposite direction and doubling back. This is not satisfactory for a working commercial wharf and would affect its efficient operation.</p>	
<p>Para 12.6 Peruvian Wharf</p>	<p>WR.PLA.31</p>	<p>Paragraph 3.2.8 of the NIPRA states that the navigational impacts of the tunnel's construction on Peruvian Wharf "will need to be taken into consideration and any detailed NRA updated as and when likely activities and associated river logistics at PW become known with more certainty." This is too vague a commitment. First, the PLA wishes to see the NIPRA treated as a 'live' document among the plans and other documents that are required to regulate the Project (see e.g. Requirement 5(2)). Second, and more substantially, the Scheme must take account of the fact that there is an implemented planning consent</p>	<p>The interface between the Silvertown construction works and other organisations using the river Thames, has been recognised and addressed by the Applicant.</p> <p>The development of the envisaged construction methods, the Reference Design and development of the dDCO provisions have been informed by user engagement and consultation, navigable interest surveys of users of the River Thames, and regular liaison with the PLA throughout Scheme development.</p>

		<p>for Peruvian Wharf and the Wharf will be operational by late 2017. TfL must therefore plan the implementation of the Scheme so as to mitigate impacts on an active working wharf. The present proposals clearly do not do that. As owner of Peruvian Wharf, the PLA seeks a guarantee that TfL will carry out the authorised development so as not to limit the operational use of the Peruvian Wharf or access to it by water or land.</p>	<p>The use of the River (including use by marine equipment required for the Scheme's construction activity) is controlled by the PLA. In TfL's extensive engagement with the PLA on such issues, the need for a Navigational Risk Assessment has been identified as a mechanism by which PLA can ensure risks of marine use on the river are adequately controlled, to ensure it is fully informed of any potential impacts.</p> <p>Whilst usually prepared and submitted to PLA closer to commencing river use, TfL have prepared a draft of this document, known as the 'Navigation Issues and Preliminary Risk Assessment ('NIPRA') [APP-054] and submitted this with the DCO application to reflect the preliminary design stage, having discussed its contents with the PLA.</p> <p>PLA indicate in their representation a desire that this document is a live document and be therefore updated. This accords with the Applicants understanding, in that a Passage Plan to be prepared prior to river use for Silvertown as required by the CoCP and</p>
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			<p>secured by Schedule 2, paragraph 5, Requirements of the dDCO, which will be approved by the PLA, and will contain Navigational Risk Assessments (NRA).</p> <p>Together the NRA, the dDCO and specifically the Protective Provisions for the benefit of PLA (which also require the submission of navigational risk assessments pre construction as appropriate), address the need to maintain operation of all navigable interests in the Thames, Peruvian Wharf included.</p> <p>Access to and from North Woolwich Road for Peruvian Wharf will be maintained continuously throughout construction of the Silvertown Scheme, refer to paragraph 6.2.3 of the Transport Assessment [APP-086].</p>
<p>Para 13.1 River Closure</p>	<p>WR.PLA.32</p>	<p>If the DCO is made in its current form, TfL would have powers to close the river area/all parts of the River within the Order limits and take temporary possession of it. As a result, the affected area could be</p>	<p>The Applicant is currently discussing the powers contained in articles 17, 29 and 30 with the PLA with a view to reaching agreement as to the appropriate scope of</p>

		<p>closed completely to users during construction and maintenance. As explained above, these powers would, if exercised to their full extent, have very serious implications for all existing River users, including leisure users, commercial passenger craft and cargo transport. For the reasons already explained, given the nature of the Project, the PLA can see no justification for such wide ranging powers.</p>	<p>these provisions.</p>
<p>Para 13.3 - 13.4 Safeguarded and non-safeguarded cargo wharves</p>	<p>WR.PLA.33</p>	<p>The PLA's powers and duties are all concerned with the effective functioning of the River. It will be appreciated that as an essential part of this the PLA has a direct interest in every aspect of activity along the River that relies on the River as supporting infrastructure. The PLA therefore has a direct interest in the welfare of owners and occupiers of wharves and other facilities that make use of the River as a transport corridor.</p> <p>The NIPRA states (paragraph 1.1.1) that it "presents the preliminary assessment of activities within the river". But, in the PLA's</p>	<p>The PLA notes the safeguarded wharves in the vicinity of the site; however only the Thames Wharf is directly impacted by land-take as a result of Scheme construction and, as stated in paragraph 7.6.22 of the ES [APP-031], the wharf will be re-instated to its pre-Scheme condition and will be returned to existing owners. The safeguarded status of the wharf will not be affected.</p> <p>The affected businesses on non-safeguarded wharves referred to by the PLA in point 7 of their response are identified in Table 7-21 of the ES, with impacts as a result of the Scheme assessed in Tables 7-28, 7-29 and</p>

		<p>view, what it and all of the other application documents singularly fail to do is address the impact of the Scheme during construction and operation on the safeguarded and non-safeguarded cargo handling wharves and existing river related uses.</p> <p>Section 3 of the NIPRA makes the point that some occupiers have leases that will expire before the Scheme is "on site" (see NIPRA paragraph 3.1.4). This refers to several tenancies - Keltbray is one - that were granted for a rolling term. The implication is that these businesses are present on only a short term basis. That is not correct. The businesses in question were obliged to accept leases on rolling terms only because of the impending Silvertown tunnel proposals. These businesses are in the area for the long term and are looking to be left undisturbed or re-accommodated. The PLA supports this as underwriting the commercial health of the River.</p>	<p>7-31. As noted in paragraph 7.6.6 of the ES, a number of occupiers are on short-term leases with the GLA, which are due to expire prior to construction of the Scheme commencing.</p> <p>TfL has met with Keltbray (who occupy the safeguarded wharf at Thames Wharf), and with Euromix (who occupy land owned by GLA and Quintain). From the meetings it has been confirmed to TfL that occupation of the sites is on the basis of short-term leases, and that the occupation of the land by the occupiers will have ceased in accordance with the terms of those leases, ahead of the land being required for the Silvertown Tunnel scheme.</p> <p>It is therefore considered that at this stage, negotiations on compensation are not required with the tenants. However, if the temporary powers contained within the Order are required to be used, then negotiations and the support offered in the Environmental Statement (paragraph 7.6.55 of the Environmental Statement, App-031) will be</p>
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			<p>provided:</p> <p><i>'For those displaced businesses whom either have no or a very small compensatable interest, TfL is intending to signpost them to suitable agents to assist them in identifying and securing a relocation property.'</i></p> <p>The Silvertown Tunnel scheme intends to use the wharf areas during the construction of the tunnel, and use the River Thames to transport material required for the construction of the tunnel, thus reducing the impact of the scheme on the local road network. Once the construction of the scheme has been completed, and the tunnel is in operation, the landowners of the sites currently occupied by Keltbray and Tarmac will be able to lease/use the sites.</p> <p>Given the short term nature of the leases, it can be anticipated that the operators were aware that they would have to relocate on the termination of their leases, and the commercial terms and business plans of the occupiers would have reflected the finite</p>
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			<p>nature of the operation from the site. It is therefore not a reasonable expectation that TfL, a publically funded body, makes financial contributions or compensation to relocate the businesses where, in absence of the scheme, the occupiers would not, on the terms of their leases, be in occupation of the land needed for the scheme.</p> <p>As noted above, TfL has committed in the Environmental Statement to provide assistance to those businesses with no or little compensatable interest. TfL understands that both Keltbray and Tarmac have been in discussions with the PLA over opportunities to relocate. TfL notes that it was identified in the Safeguarded Wharves Review Final Recommendation – March 2013 (a Mayor’s report in collaboration with the PLA) that there was an over-supply of wharves in North East London sub-region. The report was at a point in time where Peruvian Wharf was safeguarded as a wharf but was in advance of the recent acquisition of Peruvian Wharf by the PLA. Critically, the report also made recommendations with the Silvertown Tunnel proposals referenced and considered. It was</p>
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			<p>also at a time where the safeguarding of the Thames Wharf and the Tarmac site were subject to safeguarding for the Silvertown Tunnel scheme. The report also notes that <i>‘Opportunities to consolidate wharves in the Thameside West area are under consideration and will be progressed, if appropriate, with relevant stakeholders.’</i></p> <p>Peruvian Wharf is sited a few hundred metres to the east of Thames Wharf which presents a potential opportunity for relocating the occupiers of Thames Wharf. The report identified 24 wharves in the North East London sub-region, of which 3 were proposed for release, one was proposed to be safeguarded, and one was proposed to be pursued for reactivation.</p>
<p>Para 13.5 -13.7 Safeguarded and non-safeguarded cargo wharves</p>	<p>WR.PLA.34</p>	<p>13.5 The safeguarded Thames Wharf is owned by ASD (Bow Creek frontage) and EMR (River Thames frontage). Lnstone Wharf on the Bow Creek frontage was used to export CD&E waste from the Crossrail project (Limmo drive) and handled 500,000 tonnes in 2014 and</p>	<p>The Applicant has worked together with the ASD Limited (trading name Kloeckner Metals UK) to develop a mitigation strategy to minimise potential direct impacts on ASD during construction of the Scheme, so the business can remain in operation at their</p>

	<p>222,000 tonnes in 2015.</p> <p>Keltbray handle CD&E waste and aggregates from the EMR owned site (in conjunction with operations at a further Ballymore owned site in Thameside West, Mohawk Wharf). Keltbray handled 190,000 tonnes in 2014 and 280,000 tonnes in 2015. Cargo-handling operations from the EMR owned site currently consist of at least one barge being handled per day (sometimes one on both day and night tides), with each barge of between 1kt - 2kt capacity, although at times the barges are smaller at 0.6kt - 0.7kt. It is understood that Keltbray want to increase volumes and to consolidate operations on one site; this area is particularly attractive due to proximity to main markets.</p> <p>TfL is proposing to find accommodation to enable ASD Ltd to remain in operation throughout the construction of the Scheme. This will presumably be at a new location as it appears there will not be any available</p>	<p>existing Thames Wharf site.</p> <p>As stated by the Applicant in the ES [APP-031], an alternative operational area and an alternative temporary access to the ASD site from Scarab Close have been identified as available to ASD during the construction of the Scheme.</p>
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		space on Thames Wharf.	
<p>Para 13.8 Safeguarded and non-safeguarded cargo wharves</p>	<p>WR.PLA.35</p>	<p>Whilst the Navigational Risk Assessment [APP-054] states at paragraph 2.11.2 that the "project will need to ensure, as far as reasonably practicable that once the works are completed Thames Wharf can revert to carrying out commercial operations", no details are provided on how this will be achieved and it is not clear to the PLA how the dDCO requires it. Additionally, the statement is contrary to the NIPRA which states that it is unlikely that the existing operations at Thames Wharf in their current form may continue during the Scheme operation and certainly not during the construction and dismantlement activities associated with the jetty construction. The PLA considers that there would be a fundamental impact on Keltbray during construction which could potentially result in their permanent loss from Thames Wharf with an associated loss of cargo handling capacity within the Port of London. That TfL can contemplate such a permanent outcome from a purely</p>	<p>As the Applicant is only seeking temporary possession powers over Thames Wharf, the Applicant would be under a duty (by virtue of article 29(6) of the dDCO) to restore the land to the reasonable satisfaction of the landowner before 'handing back' the land. It is this restoration which the Applicant considers would enable Thames Wharf to resume commercial operations on a general basis.</p> <p>The Applicant does not expect to acquire leaseholders interests in Thames Wharf land. In the event that tenancy extensions are granted in the face of the Silvertown Scheme, the Applicant would need to use powers sought in the dDCO to make available land required for delivery of the Scheme.</p> <p>In these circumstances, businesses displaced by the Scheme who have a qualifying interested in land will be compensated in accordance with the Compensation Code and the Applicant will seek to provide assistance</p>

		<p>temporary intervention seems extraordinary. It is contrary to London-wide and local planning policy and, in the PLA's submission, is completely unacceptable and should not be allowed.</p>	<p>on a case by case basis for those displaced businesses that either have a very small, or, no compensatable interest, such as by helping to identify suitable agents to assist in identifying land and securing a relocation property (paragraph 7.6.55 of the Environmental Statement, App-031).</p>
<p>Para 13.9 Safeguarded and non-safeguarded cargo wharves</p>	<p>WR.PLA.36</p>	<p>In addition there is one further operational, but not safeguarded, wharf within the area. Tarmac Limited trading as Euromix handle waterborne aggregates and operate a batching plant at Dock Entrance Wharf. The site is owned by Quintain and the GLA. Euromix handled 125,000 tonnes in 2014 and 150,000 tonnes in 2015. Cargo-handling operations currently consist of up to one motorised barge being handled at least every other day, with each vessel of between 0.7kt - 1.2kt in capacity. As set out in Euromix's relevant representation, it is clear that the Project will have fundamental impacts on Euromix and its cargo handling capacity within the Port of London, impacts which could be avoided if amendments to the Project allowed them</p>	<p>The Applicant does not expect to acquire leaseholders interests in Thames Wharf land due to their lease expiring in Summer 2017. In the event that tenancy extensions are granted in the face of the Silvertown Scheme, the Applicant would need to use powers sought in the dDCO to make available land required for delivery of the tunnel. However, TfL has committed to provide assistance by helping to identify suitable agents to assist in identifying land and securing a relocation property (paragraph 7.6.55 of the Environmental Statement, App-031).</p> <p>As per the response to WR.PLA.33, the occupation of the site by Tarmac is subject to a lease with GLA/Quintain, who along with LB Newham has development aspirations for the</p>

		<p>to remain on site during the construction period.</p>	<p>area. The site is not safeguarded and in the Safeguarded Wharves Review Final Recommendation – March 2013 (a Mayor’s report in collaboration with the PLA) it was identified that there was an over-supply of wharves in the North East London sub-region. The PLA newly acquired Peruvian Wharf site which lies a few hundred metres to the east and is safeguarded provides a potential opportunity for Tarmac to relocate once their lease expires.</p>
<p>Para 13.10 Safeguarded and non-safeguarded cargo wharves</p>	<p>WR.PLA.37</p>	<p>General Marine (Tugs and Barges) Ltd ("GMTB") use their yard off Dock Road for repair works to barges. This is an essential river activity. The application documents identify that GMTB's operations will need to cease during construction and operation of the temporary jetty. As it is not explained whether GMTB will be relocated or, if they will, where they will be relocated to, the implication is that the company is expected to shut down the Dock Road site but, somehow, preserve its business without a substitute site and continue the business at Dock Road six or</p>	<p>TfL Has met with General Marine Tugs and Barges Ltd (GMTB). The non-safeguarded wharf site is needed temporarily for the construction of the Silvertown Tunnel. The wharf area currently leased by GMTB forms an integral part of the tunnel worksite, being proximate to both the tunnel boring machine launch chamber area from where it is envisaged that the tunnel arisings will be brought to the surface, and to the proposed temporary jetty site from where it is envisaged that tunnel arisings will be exported away from the site. From its engagement with GMTB, it has been confirmed that GMTB</p>

		<p>more years later. The application documents also identify a permanent impact associated with the tunnel road and restrictive covenant for subsoil works. It is not clear why this level of dislocation is necessary, and TfI should be put to strict proof that these impacts cannot be avoided and are proportionate.</p>	<p>owned the site they currently occupy, but sold the site to a third party, and leased the site back. The site was subsequently sold to Quintain who, along with the GLA and local authority, has well known development aspirations for the area.</p> <p>GMTB are subject to a rolling break on their lease, and as such have been decanting from their site in anticipation that they may have to vacate if notice is given by their landlord. They are aware of the Silvertown Tunnel scheme and do not object to the proposals.</p>
<p>Para 14 Navigation and Regulation</p>	<p>WR.PLA.38</p>	<p>These Written Representations have explained the PLA's serious concerns about the potential for the dDCO to disrupt navigation in the River to the point of completely severing the navigable waterway upstream and downstream of the Order land. While not in any way resiling from the opinion that the degree of proposed disruption is excessive and unnecessary, the PLA has no doubt that any necessary disruption to River traffic is capable of being accommodated without</p>	<p>The Code of Construction Practice (CoCP) [REP1-119] has been updated for Deadline 1 and now includes the provision that the Passage Plan must be approved by the PLA.</p> <p>The Passage Plan (to be approved by the PLA) will establish cycle times for loading, unloading and journeys for vessels in relation to tides. This will enable the Applicant to plan with the PLA so as not to displace other River</p>

	<p>causing such a result.</p> <p>It is all a question of planning, coordination and management. Tfl must identify what will be needed for the Scheme and expected timing. It must plan with the PLA how this may be achieved so as not to displace other River users but to operate alongside them. And the PLA, as regulator of traffic on the River, must exercise its functions so as fairly to manage Tfl's additional use of the River. In this way there might be some level of disruption to River users, including Tfl, but wholesale interference and prevention of River use for all users other than Tfl would be avoided.</p> <p>Such a result has been achieved before on the River in relation to other infrastructure projects and the PLA can also draw on its current experience of the Thames Tideway Tunnel scheme. Once Tfl has clarified what is actually needed for the Project, the PLA has no doubt that an appropriate River regime can be agreed and provided</p>	<p>users but to operate alongside them.</p> <p>As noted, the Applicant and the PLA are in the process of discussing the form of the protective provisions, together with other dDCO drafting points with a view to reaching agreement on these issues.</p>
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5 HEALTH & SAFETY EXECUTIVE

5.1 Comments on Written Representation

Table 4 - Key issues identified from Written Representation by Health & Safety Executive with TfL’s commentary

Location in Representation	TfL Reference	Interested Party’s Comment	TfL Comment
Sections 8.1-8.6, page 32	WR.HSE.6	<p><u>8 Conclusion and HSE’s Advice on LUP matters</u></p> <p>The Southern Tunnel Approach to the Silvertown Tunnel is proposed to be constructed within HSE’s consultation Inner Zone of two major accident hazard sites; East Greenwich Gasholder Station (EGGS) and Brenntag Inorganic Chemicals Ltd (BICL).</p> <p>The busy transport link currently proposed is classed as Sensitivity Level 2 in HSE’s published LUP methodology [9] due to</p>	<p>The Applicant remains in ongoing discussions with the HSE regarding the steps required to remove the HSE’s advice against the Scheme. The wider context of these discussions is set out in paragraphs 7.4 to 7.9 of the Update Report submitted by the Applicant in October (AS-021).</p> <p>The Applicant and the HSE submitted a Statement of Common Ground at Deadline 1 (REP1-141) which updated the ExA on the current status of discussions between the parties.</p> <p>The Applicant provides below a further</p>

		<p>potentially large numbers exposed to risk, although the exposure of an individual is only for a short period. In view of the density of traffic that is likely to be present at this proposed transport link within the Inner Zone of two major hazard sites, HSE Advises Against this proposed development.</p> <p>There are means by which HSE would be prepared to reconsider its safety advice. If changes were made to the hazardous substances consents held by EGGS and the BICL site, such that the quantities and/or positioning of the hazardous substances were limited on each site, HSE would review its LUP consultation zones and the advice may change.</p> <p>A suitably worded “requirement” of the DCO along the lines of a “Grampian” condition could also result in HSE withdrawing its Advice Against the proposal. The proposed draft wording of the Grampian requirement is yet to be negotiated by the relevant parties.</p>	<p>update in relation to each site below:</p> <p>Brenntag Inorganic Chemicals Limited (BICL): It is understood that the Royal Borough of Greenwich (RBG) has recently consulted upon the application submitted to them by Brenntag in 2012. As a result of this consultation, Brenntag have been requested to undertake further studies in support of their application. The Applicant continues to engage with Brenntag in relation to the accommodation works at their site and with RBG in relation to the determination of this application.</p> <p>EGGS: Whilst SGN has still not indicated that they would allow the Hazardous Substance Consent (HSC) for the site to be revoked, both they and National Grid (NG), who own the land directly adjacent to EGGS, have advised that it remains their intention to develop the EGGS site and adjacent land for residential use. This intention was stated in NG's and SGN's responses to the RBG consultation on the Greenwich Peninsula Masterplan (as reported in the officer's report for the Revised Peninsula Masterplan dated 8</p>
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			<p>September 2015, application reference 15/0716/O).</p> <p>It remains the objective of the Applicant to secure the revocation or variation of the existing HSCs for these sites, or to obtain clear commitments from the relevant authorities on the timescales within which the existing HSCs will be revoked so as to enable the HSE to remove its advice against the Scheme. The Applicant recognises that a Grampian-style requirement in the DCO could also provide a means of removing the HSE advice if this objective cannot be achieved within the necessary timescales.</p>
<p>Section 9.1-9.2 Page 33</p>	<p>WR.HSE.8</p>	<p><u>General Marine (Tugs and Barges) Ltd</u></p> <p>General Marine (Tugs and Barges) Ltd (GMTB) holds an explosives licence under the Dangerous Goods in Harbour Areas Regulations 2016 (DGHAR) for a berth on the River Thames in Silvertown. The berth falls within an area, Works No. 20, for which TfL are seeking temporary possession during tunnel construction. If this use results</p>	<p>The Applicant has met with General Marine (Tugs and Barges) Ltd (GMTB). The non-safeguarded wharf site is needed temporarily for the construction of the Silvertown Tunnel. The wharf area currently leased by GTMB forms an integral part of the tunnel worksite, being proximate to both the tunnel boring machine (TBM) launch chamber area from where it is envisaged that the tunnel arisings will be brought to the surface, and to the</p>

		<p>in an increase in the number of people nearby then it could put the commercial viability of GMTB's explosives operation in jeopardy. This potential incompatibility could be overcome by a requirement in the DCO, but this would be for TfL and GMTB to consider.</p> <p>This is not an objection that HSE itself raises against the DCO, but a matter that is drawn to the ExA's attention for consideration during the examination period of the proposed development.</p>	<p>proposed temporary jetty site from where it is envisaged that tunnel arisings will be exported away from the site. Through engagement with GMTB, it has been confirmed that GMTB previously owned the site they currently occupy, but sold the site to a third party, and leased the site back. The site was subsequently sold to Quintain who, along with the GLA and LBN, has well-known development aspirations for the area.</p> <p>GMTB are subject to a rolling break on their lease, and as such have been decanting from their site in anticipation that they may have to vacate the site if notice is given by their landlord. They are aware of the Silvertown Tunnel scheme and do not object to the proposals.</p>
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6 THAMES WATER

6.1 Comments on Written Representation

Table 5 - Key issues identified from Written Representation by Thames Water with TfL’s commentary

Location in Representation	TfL Reference	Interested Party’s Comment	TfL Comment
Page 1	WR.TW.1	<p>Article 14</p> <p>In relation to Article 14, TWUL requires comfort that the Applicant will comply with the relevant provisions of WIA in relation to discharges that fall within the scope of WIA. TWUL also requires an amendment to provide for deemed refusal rather than deemed consent.</p>	<p>The Applicant and Thames Water are engaged in on-going discussions in respect of the DCO application, particularly the protective provisions contained in Part 1 of Schedule 13 to the dDCO.</p> <p>In respect of the specific points raised by Thames Water, the Applicant comments as follows:</p>
Page 1	WR.TW.2	<p>Article 29</p> <p>TWUL believes that protective measures installed above apparatus could interfere</p>	<p><u>Article 14</u></p> <p>Article 14 provides statutory authority for the Applicant to discharge water but with the</p>

		<p>with its statutory powers to access apparatus for the purpose of maintenance and repair, and proposes an amendment to Article 29(6)(d) to ensure these measures are removed if they interfere with access, create additional expense or impact on the operation of the apparatus.</p>	<p>consent of the person to whom the relevant watercourse, sewer or drain belongs, subject to reasonable terms and conditions. Therefore Thames Water will be able to impose conditions to ensure its assets are protected.</p>
<p>Page 1-2</p>	<p>WR.TW.3</p>	<p>Schedule 13: Protective Provisions</p> <p>TWUL’s proposed amendments to the Protective Provisions in Part 1 of Schedule 13 are:</p> <p>The definitions in paragraph 2, including to the definitions of ‘alternative apparatus’ and ‘apparatus’, should be amended to fully reflect all apparatus that TWUL owns or could own that would need to be protected under the Order, and to capture how alternative apparatus should be characterised.</p> <p>TWUL proposes an amendment to paragraph 4(1) to clarify that TWUL has</p>	<p>In respect of a 'deemed refusal', this would not follow the usual form of this article in DCOs made to date. It is considered by the Applicant that a 'deemed consent' provision is entirely appropriate for inclusion in the DCO due to it authorising a nationally significant infrastructure project. However, the Applicant will discuss this concern further with Thames Water.</p> <p><u>Article 29</u></p> <p>Any protective works to be constructed which could affect Thames Water's apparatus which is not to be relocated would be subject to the protective provisions contained in Schedule 13. These provisions enable Thames Water to specify 'reasonable requirements' in</p>

	<p>statutory powers to lay new apparatus in the land affected by the Order.</p> <p>The Applicant has no power to acquire apparatus (paragraph 5), but does have power to acquire land and interests in land. TWUL therefore proposes an amendment to clarify that the Order does not authorise the acquisition or extinguishment of rights in land that are required for the maintenance of retained apparatus, rather than referring to acquiring apparatus.</p> <p>TWUL proposes an increase to the notice period in various provisions from 28 days to not less than 56 days, and requests an amendment to require the Applicant to consult and agree technical solutions before serving notice.</p> <p>TWUL believes that paragraph 6(3) should be removed, or alternatively amended to remove the requirement on TWUL to use its compulsory purchase powers, and to require the Applicant to use all reasonable endeavours to obtain rights and facilities</p>	<p>respect of works which could affect retained apparatus, providing a sufficient element of control.</p> <p>In addition, a new paragraph 11 has been included in the revised draft of the DCO that was submitted at Deadline 1 [REP1-095] which provides that access to apparatus must be maintained.</p> <p><u>Schedule 13 – protective provisions</u></p> <p>The Applicant has noted the comments made on the protective provisions, and will continue discussions on these points during the examination. Certain sought amendments have been made in the revised draft of the DCO that was submitted at Deadline 1 [REP1-095].</p> <p><u>Schedule 13 – sewer outfall and access</u></p> <p>It is the Applicant's intention that the asset mentioned would not be adversely affected as a result of the works authorised by the DCO.</p>
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		<p>before serving notice.</p> <p>TWUL requires an amendment to paragraphs 6(5) and 8 to ensure the Applicant obtains TWUL consent before working on TWUL existing or future apparatus, and also to paragraph 6(7) to increase the protective zone from 300mm to 600mm.</p> <p>Where TWUL has rights and facilities (in addition to its statutory powers) over apparatus to be diverted, the arbitrator should ensure that the rights and facilities for alternative apparatus are not less favourable than TWUL's existing rights (paragraph 7(2)).</p> <p>TWUL requires notice of any works that could impact on TWUL apparatus, and not just works authorised under paragraph 6(2) (paragraph 8), and requests an amendment which obliges the Applicant to assess impact and propose mitigation.</p> <p>TWUL proposes an amendment to</p>	<p>It is considered that the outfall would be classed as 'apparatus' in the protective provisions and therefore be protected in the manner set out therein. Further, the new paragraph 11 as mentioned above provides that access to apparatus must be maintained.</p> <p>The Applicant will continue to discuss these, and other, issues with Thames Water, with a view to coming to agreement on the protective provisions as soon as possible during the examination.</p>
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		<p>paragraph 9(1) to ensure consistency with the expenses provisions afforded to National Grid, and to 9(3) and (4) to clarify when costs should not be deducted from overall expenses.</p> <p>The Applicant has given National Grid a comprehensive indemnity in relation to losses suffered in consequence of works authorised under the Order or otherwise, and TWUL requests the same indemnity.</p>	
<p>Page 2</p>	<p>WR.TW.4</p>	<p>Schedule 13</p> <p>TWUL holds freehold interests in land on which it has a sewer outfall and access routes. TWUL requires comfort that the outfall will be protected under the Order and that the Applicant will maintain access for the purpose of the exercise by TWUL of its statutory powers.</p>	

7 NATIONAL GRID ELECTRICITY TRANSMISSION PLC (NGET) and NATIONAL GRID GAS PLC (NGG)

7.1 Comments on Written Representation

Table 6 - Key issues identified from Written Representation by NGET and NGG with TfL’s commentary

Location in Representation	TfL Reference	Interested Party’s Comment	TfL Comment
Pages 1-2	WR.NG.1	<p>We are writing on behalf of our clients, NGET and NGG, in order to formally withdraw NGET and NGG’s objections to the Application.</p> <p>NGET and NGG have previously submitted relevant representations in relation to the Application regarding the need to protect their operational assets in the vicinity of the Application site. As set out below, agreement has now been reached on these protective provisions.</p> <p>Examining Authority’s First Round Written</p>	<p>The Applicant welcomes National Grid's withdrawal of its objection and is grateful for its cooperation to date.</p> <p>The agreed form of protective provisions for the benefit of National Grid was included in Part 3 of Schedule 13 to revision 1 of the dDCO submitted at Deadline 1 (REP1-095).</p>

		<p>Questions - Question CA2</p> <p>NGET and NGG have worked with TfL and its advisors to agree an appropriate form of protective provisions for inclusion within the development consent order (DCO) which the Application seeks consent for.</p> <p>The enclosed document, enclosed for your information and records, contains the agreed form of protective provisions. NGET and NGG understand that TfL will include these protective provisions within the DCO which is to be submitted for Deadline I of the Application.</p> <p>As noted above, agreement on the protective provisions means that both NGET and NGG's objections can be treated as withdrawn.</p> <p>Please note that this area of the gas distribution network is now owned and operated by National Grid Gas Distributions Limited.</p>	
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8 ROYAL MAIL GROUP LIMITED

8.1 Comments on Written Representation

Table 7 - Key issues identified from Written Representation by Royal Mail with TfL’s commentary

Location in Representation	TfL Reference	Interested Party’s Comment	TfL Comment
Page 1	WR.RML.1	<p>I can confirm that Royal Mail is willing to withdraw its objection to the Silvertown Tunnel DCO application as submitted at Interested Party registration on 8 August 2016 on the strict provision that TfL provides, in advance, written confirmation (to the Examination and myself on behalf of Royal Mail) that Royal Mail</p> <p>1. will be fully consulted by TfL the Project Co. on the Construction Traffic Management Plan,</p>	<p>The Applicant agrees that it is important to liaise with the local community and businesses to ensure that the effects of construction traffic on them are minimised and mitigated.</p> <p>As such, the Applicant has committed to continual engagement with local businesses in the Code of Construction (CoCP) [REP1-119] section 4 paragraph 4.1.4 of the CoCP (as amended at Deadline 2).</p> <p>The outcomes of this engagement relating to construction traffic will be embedded into the Construction Traffic Management Plan (CTMP); which is also to be agreed by the</p>

			relevant local authority. This is secured within the Code of Construction (CoCP) [REP1-119] para 3.1.4.
Page 1	WR.RML.2	<p>I can confirm that Royal Mail is willing to withdraw its objection to the Silvertown Tunnel DCO application as submitted at Interested Party registration on 8 August 2016 on the strict proviso that TfL provides, in advance, written confirmation (to the Examination and myself on behalf of Royal Mail) that Royal Mail:</p> <p>2. will be part of the Community Liaison Group that is set up by TfL / the Project Co.</p>	<p>As per the Applicant's email to Royal Mail of 24 October 2016 (included in REP1-065), the Project Co appointed to construct the Silvertown Tunnel will be contractually required to establish a Community Liaison Group, amongst other matters. The Applicant will provide the Project Co, when appointed, with a list of those organisations that it would be required to engage through the Community Liaison Group, which will include Royal Mail. Explicit reference to this has been added to the revised CoCP submitted at Deadline 2.</p>
Page 1	WR.RML.3	<p>I can confirm that Royal Mail is willing to withdraw its objection to the Silvertown Tunnel DCO application as submitted at Interested Party registration on 8 August 2016 on the strict proviso that TfL provides, in advance, written confirmation (to the Examination and myself on behalf of Royal</p>	<p>As per the Applicant's email to Royal Mail of 24 October (included within REP1-065), the Applicant has identified Royal Mail as a key stakeholder whom the Project Co should engage with during construction of the scheme, for example through Royal Mail's inclusion in a Community Liaison Group, as</p>

		<p>Mail) that Royal Mail: 3. is kept informed and engaged throughout the construction and operation of the project.</p>	<p>set out in the revised CoCP submitted at Deadline 2. Once construction is complete and the tunnel is operational, Royal Mail will continue to be engaged on traffic issues pertaining to the tunnel in the same way as for the rest of the network. So, for example, the Applicant publishes a weekly 'Roads travel bulletin' listing planned road closures or other events which might impact on the highway.</p>
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