

Southampton to London Pipeline Project

Deadline 7

Comments on Responses to Deadline 6 Submissions

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Southampton to London Pipeline Project

Applicant's Comments on Responses submitted for Deadline 6



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1 Introduction

- 1.1.1 The Applicant has reviewed all submissions provided by Interested Parties at Deadline 6. This document provides responses to the documents submitted at Deadline 6 for which the Applicant wished to provide further information or clarification.
- 1.1.2 The Applicant has not responded to every comment, as some points raised were addressed at the Issue Specific Hearings or through the follow on actions and it wishes to avoid unnecessary repetition. Similarly, some of the submissions have raised points that the Applicant has previously addressed and it was not felt necessary to repeat the same response.



2 Applicant's Comments on Responses submitted for Deadline 6

REP6-080 – Environment Agency

REP6-080– Environment Agency Comments on responses submitted for Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
3.3 and 3.4	<p>Flood risk – topsoil management (length of time of stockpiles)</p> <p>The Environment Agency is concerned about the length of time that any stockpiles would be in place for.</p>	<p>The Applicant has had discussions with the Environment Agency and produced technical notes about this matter and the discussion is around stockpiles within Flood Zone 3 (FZ3).</p> <p>The Applicant has confirmed that the topsoil for the whole route would be reinstated on a rolling basis as the pipeline is installed, rather than being left until the end of construction. This is standard practice for pipeline construction works.</p> <p>The Applicant does not consider it feasible to give a commitment to specific time periods of working within FZ3 at this stage. However, given the minimal working distance in FZ3, as indicated on the plans provided to the Environment Agency in the Statement of Common Ground (REP6-011) and the 10m buffer commitment (commitment G184 in the Outline Water Management Plan, secured through DCO Requirement 6) the Applicant does not think this is a flood risk concern.</p>
3.3 and 3.5	<p>Flood risk – topsoil management (excess material)</p> <p>The Environment Agency is concerned about what will happen with excess material as a result of the volume of the pipeline. They note that the applicant has stated that</p>	<p>The Applicant is anticipating that the excavated material would be suitable for bedding the pipe on, and therefore the only surplus soil would be the volume of soil displaced by the pipe. For each 1m of pipeline, when the soil is spread over the average working width of 36m the displaced volume of the pipe would lead to a 2mm rise in level.</p> <p>Should imported bedding material be required, the likely total displaced volume of soil (pipe plus bedding material) would be 0.36m³. When this is spread over the average working width of 36m, this would be a 10mm rise in level.</p>



REP6-080– Environment Agency		
Comments on responses submitted for Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
	there will be no land raising, so they assume that it will be managed by removal.	The Applicant considers both the 2mm and the 10mm to be <i>de minimus</i> and therefore does not constitute land raising.
4.0	<p>River Thames Scheme</p> <p>The Environment Agency confirmed that it is still awaiting further information from the Applicant on this matter and that communications between all parties will need to continue beyond the end of the DCO examination period.</p>	<p>The Applicant has recently selected a preferred contractor for the pipeline installation work and is developing cost estimates for the section of the pipeline route that is potentially impacted by the River Thames Scheme (RTS). The Applicant is assessing the relative costs associated with:</p> <ol style="list-style-type: none"> 1) Constructing the pipeline if there were no RTS Scheme. 2) Constructing the pipeline taking into account a future RTS Scheme (based upon RTS design information provided). 3) Constructing the pipeline as per Option 1 and then diverting the pipeline to accommodate the RTS at a future date. <p>The Applicant will revert to the Environment Agency on the matter of these costs and pipeline design and these discussions will continue beyond the end of the DCO examination period.</p>



REP6-082 – Highways England

REP6-082 – Highways England Deadline 6 Submission - Written summaries of oral submissions put at Issue Specific Hearing on the draft Development Consent order (dDCO) on Tuesday 25 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
N/A	<p>Temporary stopping up</p> <p>Concerns about the appropriateness of this power in DCOs promoted by Highways England</p>	<p>The Applicant understands that this is a point of general concern about the use of temporary stopping up powers in DCOs promoted by Highways England in future, as opposed to a concern about the appropriateness of the power in this DCO. As the submission notes, '<i>none of Highways England's roads is affected by temporary stopping up in the proposal before this Examination</i>'.</p> <p>However, the Applicant did make submissions at Deadline 6 (REP6-072) explaining why it considers that it is appropriate to distinguish between the power to temporarily stop up (now close) streets and Public Rights of Way under article 13 and the power to regulate traffic under article 17. Notably, the Applicant made the point that traffic regulation applies to vehicular traffic only (see section 2 of the Road Traffic Regulation Act 1984), whilst some of the temporary stopping up / closures applies to footpaths or might apply to pedestrians on vehicular roads.</p>
	<p>Construction hours</p> <p>Extend the scope of Requirement 14(4)(c) to allow Highways England to direct the Applicant to carry out works on the strategic road network outside the core working hours</p>	<p>The Applicant did not amend sub-paragraph (4)(c) at Deadline 6 on the basis that there are no works proposed <u>on</u> the strategic road network <i>per se</i>. The Applicant will be drilling beneath those roads using trenchless construction techniques, so will not be seeking to occupy road space for that purpose. This was explained in the Applicant's responses to action points arising from the issue-specific hearing on 25 February 2020 (REP6-072).</p>



REP6-082 – Highways England Deadline 6 Submission - Written summaries of oral submissions put at Issue Specific Hearing on the draft Development Consent order (dDCO) on Tuesday 25 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
	<p>Decommissioning of the existing pipeline</p> <p>Concerns about the decommissioned pipeline becoming a maintenance liability to Highways England</p>	<p>The suggestion made at the issue-specific hearing on the draft DCO on 25 February 2020 regarding the future use of the existing pipeline as a duct for fibre optic cables was of course not the Applicant's suggestion.</p> <p>The Applicant can confirm that it proposes to decommission the existing pipeline, a process that would typically involve cleaning the pipeline with nitrogen to ensure that it is in an inert and safe condition; isolating the pipeline from the existing pipeline infrastructure at Boorley Green and West London Terminal; and filling the pipeline with grout. There would be no ongoing maintenance obligation.</p> <p>The decommissioning of the existing pipeline would be undertaken in accordance with the Pipeline Safety Regulations 1996 and does not form part of this DCO application.</p>
	<p>Traffic sensitive streets</p> <p>Highways England to provide a list of these streets</p>	<p>The term '<i>traffic sensitive streets</i>' is employed in the traffic management permit schemes operated by Hampshire and Surrey County Councils. The Applicant is not aware that it is used in the context of roads which form part of the strategic road network but awaits confirmation from Highways England.</p>



REP6-086 – Rushmoor Borough Council

REP6-086 – Rushmoor Borough Council Deadline 6 Submission - Comments on the draft Development Consent Order submitted at Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
N/A	<p>Part 3, Article 9 (now 10)</p> <p>The Council remains of the view of that the Construction Management Plan should gain Local Authority Consent.</p>	<p>The Applicant has provided a response at Deadline 7 to the ExA's draft DCO (Document Reference 8.92), including on this issue.</p> <p>The Applicant assumes that the Council is referring to the Construction Traffic Management Plan (CTMP), which is secured by Requirement 7 of the draft DCO.</p> <p>The purpose of the CTMP is to manage and reduce the impacts of the authorised development on the local highway network. The highway authorities - in this case Hampshire and Surrey County Councils – are responsible for the management of that network on a day-to-day basis through the traffic management permit schemes which apply to local roads in those counties. At the Issue Specific Hearing (ISH) on environmental matters held on 26 February 2020, Surrey County Council endorsed the Applicant's approach to the drafting of Requirement 7.</p> <p>The Applicant recognises that local planning authorities may have a role to play in considering the appropriateness of measures proposed as part of any CTMP submitted for approval under Requirement 7. It is for this reason that the draft DCO was amended at Deadline 3 (REP3-007) to provide for local planning authority consultation on any proposed CTMP. The Applicant understands that highway authorities are content to accommodate this engagement with the planning authorities.</p> <p>The Applicant therefore remains of the view that this is sufficient to ensure that legitimate concerns expressed by local planning authorities as part of the discharge process under Requirement 7 would be considered and dealt with appropriately by the highway authorities.</p>
	<p>Article 14 (now 15)</p>	<p>The Applicant does not consider this is appropriate or necessary. The Applicant is seeking consent under the draft DCO to construct the temporary and permanent accesses described in</p>



REP6-086 – Rushmoor Borough Council		
Deadline 6 Submission - Comments on the draft Development Consent Order submitted at Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
	Any changes to accesses at specific sites owned by the council, such as Southwood Country Park, Cove Cricket Club, Southwood Playing fields, Cove Brook Greenways, Queen Elizabeth Park and Highgate Football Pitch, should be subject to the Council's prior approval.	<p>Schedule 1 of the draft DCO. The consent of the street authority (or the Council as landowner or planning authority) is not required to form and lay out those accesses (article 15(2) of the draft DCO). The Council has had an opportunity to comment upon those access proposals as part of this DCO application. To add a requirement for the later approval of the Council would defeat the purpose of including them in the draft DCO.</p> <p>To the extent that the Applicant required the ability to form and lay out any further accesses which are not listed in Schedule 1, then the consent of the street authority would be required, following consultation by the street authority with the planning authority.</p>
	<p>Article 17 (now 18)</p> <p>Appropriate safeguards need to be built into the DCO to ensure no contamination or hydrological changes as a result of the pipeline</p>	<p>At no stage in the examination has the Council fully explained its concerns in relation to this article or elaborated further upon the appropriate safeguards that it considers need to be built into the draft DCO. In any event, the Applicant considers that the draft DCO already secures appropriate safeguards in respect of the water environment. For completeness, the key safeguards can be summarised as follows:</p> <ul style="list-style-type: none"> • Article 18(6) confirms that the undertaker must take such steps as are reasonably practicable to secure that any water discharged into a watercourse or public sewer or drain is as free as may be from gravel, soil or other solid substance, oil or other matter in suspension. • The Construction Environment Management Plan (REP6-030), which would need to be approved by the planning authority (in consultation with the Environmental Agency or the Lead Local Flood Authorities as appropriate) for each stage of the authorised development, would include a Water Management Plan (CEMP) (REP6-034). Outlines of the CEMP and WMP have been submitted to the Examination. The WMP would set a framework for the use and control of water on the project and sets out details as to how to manage environmental risks to the water environment. Appendix B1 to the Outline



REP6-086 – Rushmoor Borough Council		
Deadline 6 Submission - Comments on the draft Development Consent Order submitted at Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
		<p>WMP (REP6-034) contains additional measures relating to the Blackwater Valley crossing, should this ultimately need to be undertaken as open trenching, rather than the Applicant's preferred trenchless construction method. An Emergency Action Plan would also form part of the CEMP and would contain information about the processes and measures that would be implemented during an emergency, such as an extreme flood event or a significant pollution incident. Compliance with the CEMP is secured by Requirement 6 of the draft DCO.</p> <ul style="list-style-type: none"> • Within the Code of Construction Practice (Application Document 6.4, Appendix 16.1 (5)) and the Outline CEMP and its appendices submitted to the Examination, there are numerous commitments to the implementation of good practice measures relating to the water environment. These include commitments G11, G12, G44, G117, G121 and G123. Notably, commitment G123 confirms that <i>'all works within or adjacent to watercourses would be carried out in accordance with the requirements of permits and licences agreed with either the Environment Agency or relevant Lead Local Flood Authority in accordance with the provisions of the DCO.'</i> Requirement 9 also confirms that no discharge may take place under article 18 until details of the location and rate of discharge have been submitted for prior approval. This ensures that there is proper oversight and scrutiny of discharges into sewers and watercourses by those bodies which have the relevant expertise to consider such matters. <p>The Council's concerns in this regard are, therefore, unfounded.</p>
	<p>Article 41 (now 42) A requirement is needed to constrain this power. The Council should be consulted upon an arboricultural report</p>	<p>The powers conferred by article 42 of the draft DCO are already constrained by the Requirements in Schedule 2 and are not unfettered in the way that the Council suggests.</p> <p>Article 42 takes effect alongside Requirements 8 and 12 of the draft DCO. Requirement 8 deals with vegetation removal and reinstatement. It provides that, for each stage of the authorised</p>



REP6-086 – Rushmoor Borough Council Deadline 6 Submission - Comments on the draft Development Consent Order submitted at Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
		<p>development that would affect any vegetation, the retention and removal of all vegetation must be undertaken:</p> <ul style="list-style-type: none"> • In accordance with a written vegetation retention and removal plan which has been submitted to the relevant planning authority prior to the commencement of that stage and which implements the Requirements of the Landscape Ecological Management Plan (LEMP) (Document Reference 8.50 (3)). This ensures that the commitments which relate to the retention and removal of vegetation set out in the outline LEMP, notably the good practice measures described in Tables 4.1 and 4.2 of that document, are secured and would need to be implemented under any written plan submitted for information under Requirement 8. Under Requirement 12, the LEMP submitted for approval in respect of any stage of the authorised development would need to be in accordance with the Outline LEMP and must therefore incorporate these measures. • Where applicable, the Site Specific Plans (SSPs) describe the method of working at several sensitive locations along the route of the project, identified during the course of examination. In a number of instances, these plans also explain the approach to vegetation retention and removal in those sensitive locations, including the numbers of trees to be removed based on the pipe alignment described in the SSPs. To the extent that it proved necessary to amend any of the SSPs, such amendment would be subject to obtaining the prior consent of the relevant planning authority. <p>Article 42 of the draft DCO must therefore necessarily be read in the light of these Requirements, which impose important limitations upon the practical scope of the powers conferred by that article.</p> <p>For completeness, the Applicant would also emphasise that article 42 is subject to further, 'in-built' controls. Under paragraph (1), the power may only be exercised in circumstances where the Applicant reasonably believes it to be necessary to do so to prevent trees, shrubs or the roots of those trees and shrubs from obstructing or interfering with the construction,</p>



REP6-086 – Rushmoor Borough Council Deadline 6 Submission - Comments on the draft Development Consent Order submitted at Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
		<p>maintenance or operation of the authorised development or from constituting a danger to persons using the authorised development. In exercising the power, paragraph (2) also confirms that the Applicant must not cause any unnecessary damage to those trees or shrubs and must pay compensation to any person who sustains any loss or damage from such activity.</p> <p>The power is also limited in geographical scope, to trees or shrubs within or overhanging the Order Limits or the roots of trees or shrubs which extend into the Order land.</p> <p>As regards the Council's desire for an arboricultural report, earlier iterations of the draft DCO provided for the submission and approval of an arboricultural management plan as part of the CEMP under Requirement 6. However, the Applicant's approach to the management of impacts on trees and other vegetation during construction of the project has evolved over the course of the examination, in response to the Examining Authority and interested parties' comments, including the inclusion of the details set out in the SSPs relating to trees.</p> <p>In this regard, the Applicant confirmed at the ISH on the draft DCO on 25 February 2020 that the measures which would, under the Applicant's original approach, have been addressed in the AMP, were now covered in express terms by the Outline LEMP (Document Reference 8.50 (3)) and secured by Requirement 12 of the draft DCO.</p>
	<p>Requirement 3</p> <p>The written scheme setting out the stages of the authorised development should be subject to the approval of relevant planning authorities</p>	<p>The Applicant's position in relation to Requirement 3 has been clear and consistent throughout examination.</p> <p>The Applicant is very concerned about the risk of protracted discussions with local authorities, and even disagreements between local authorities, in relation to the content of the written scheme, which could impose unnecessary delays to the delivery of this project.</p> <p>The written scheme does not, and is in no way intended to, secure mitigation for impacts associated with the construction of the project. It is an administrative step, designed to provide clarity about the way in which the project will be divided up into geographical sections for the</p>



REP6-086 – Rushmoor Borough Council		
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WR Para Ref	Point raised	Applicant response to point raised:
		<p>purposes of discharging the Requirements in Schedule 2 of the draft DCO. The Applicant should retain control over how this is achieved, with input from the contractors who will be directly involved in preparing and implementing the plans, schemes and strategies secured by Schedule 2.</p> <p>The Relevant Planning Authorities will however have approval of the various management plans that relate to any particular stage within their authority boundaries.</p>
	<p>Requirement 7 The Council should approve any Construction Traffic Management Plan submitted under this Requirement</p>	<p>The Applicant refers to its response to the Council's comments on article 9 (now 10) below, which address the same point.</p>
	<p>Requirement 9 This Requirement should refer to temporary as well as permanent works</p>	<p>The Applicant has previously confirmed that any surface and foul water mitigation measures for temporary works relevant to a stage of the authorised development would be covered by the Water Management Plan approved as part of the CEMP under Requirement 6 of the draft DCO.</p>
	<p>Requirement 13 Changes to this Requirement proposed by the Council at Deadlines 4 and 5 should be adopted</p>	<p>The Applicant is not aware that the Council has proposed any changes to Requirement 13. The Requirement is widely used, well understood and supported by interested parties generally, particularly by Natural England who would be directly involved in its implementation.</p> <p>The Council did request a new Requirement on updated surveys and protected species in its response to further written question BIO.2.16 (REP4-072) and the Applicant provided a detailed response to that suggestion in its comments on responses submitted for Deadline 4 (REP5-021). That response made clear that the Outline CEMP, which is secured by Requirement 6 of the draft DCO, already makes provision for the Applicant to undertake further pre-construction</p>



REP6-086 – Rushmoor Borough Council Deadline 6 Submission - Comments on the draft Development Consent Order submitted at Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
		<p>surveys in areas where the existing baseline survey data need to be updated or supplemented. Similarly, paragraph 2.4.8 of the Code of Construction Practice (Application Document 6.4, Appendix 16.1 (5)) confirms that the Applicant would need to obtain all relevant licences from Natural England for all works affecting protected species (see commitment G43).</p> <p>It is not clear why, in the light of the response on this point already provided by the Applicant, the Council maintains its view that a further or amended Requirement is needed for protected species. There is no reasoned justification provided by the Council at Deadline 6 to assist in this regard and the Council is the only interested party advocating for it.</p>
	<p>Requirement 14</p> <p>The Council remains concerned about the activities which could take place outside the core working hours under paragraph (4)(b) and (4)(c) and about the use of the terminology “reasonably necessary” and “exceptional basis”</p>	<p>The Council’s concerns in relation to sub-paragraph (4)(b) of Requirement 14 are misguided. It is not the case that start-up and shut-down activities would be authorised ‘at any time of the day and night’ as the Council alleges. Those activities may only be undertaken one hour either side of the core working hours in sub-paragraph (1) of Requirement 14.</p> <p>Subparagraph (4)(c) was included at Deadline 4 at the request of the highway authorities. This is not a power which the Applicant may invoke itself. It would only authorise works to be undertaken on traffic-sensitive streets where so positively directed by the highway authorities under a traffic management permit. The highway authorities would need to consult with the relevant planning authority before making such a direction. In its Deadline 6 submissions (REP6-095), Surrey County Council (SCC) confirm that there is ‘<i>no intent to overuse this power</i>’ and that SCC ‘<i>always considers residents’ environmental health concerns when making decisions</i>’. Whilst Hampshire County Council (HCC) has not formally confirmed that this is the position for roads in Hampshire, the Applicant understands that SCC and HCC are broadly aligned on the use and implementation of their respective permit schemes. The Applicant considers that this provides appropriate assurances and safeguards about the way in which the provision would be applied in practice.</p>



REP6-086 – Rushmoor Borough Council		
Deadline 6 Submission - Comments on the draft Development Consent Order submitted at Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
		Finally, the Applicant has previously confirmed that the phrases 'reasonably necessary' and 'exceptional basis', as used in sub-paragraph (3) of Requirement 14, are intended to attract their ordinary meaning. Therefore, the words 'reasonably necessary' mean there must be a need, objectively assessed, to undertake any of the activities in subparagraphs (3)(a) - (d) outside the core working hours in sub-paragraphs (1), for example because of a need for certain activities, such as the completion of a trenchless pipe pull back, to take place on a continuous basis until the operation is complete. It must not be a matter of mere convenience to the Applicant for those works to take place outside the core working hours. The reference to 'exceptional basis' means just that; the Applicant cannot seek in any given location to invoke the exceptional working hours on a regular or consistent basis.
	<p>Requirement 21 (now 22)</p> <p>The Council considers that the electronic register of Requirements should be established before the submission of requests for any approvals are given</p>	<p>The Applicant included a modification to the draft DCO at Deadline 6 (REP6-003) to address this point, following comments by interested parties at the ISH on the draft DCO on 25 February 2020.</p>
	<p>Requirement 24 (now 25)</p> <p>The period for requesting further information under subparagraph (2) should be extended to 15 business days instead of 5 business days.</p>	<p>The Applicant maintains that the timescales set out in Requirement 25 are appropriate, normal for DCOs, and reflect the need to ensure that the process of discharging Requirements is not subject to delays which could frustrate the delivery of this Nationally Significant Infrastructure Project. The period in sub-paragraph (2) has already been extended during the course of this examination and the Applicant understands that the majority of the parties that will be involved in the process of discharging Requirements are now content with these timings.</p> <p>The Applicant does not agree that the words at the end of sub-paragraph (3) should be removed. The purpose of this provision is to avoid a situation where the period for determining applications</p>



REP6-086 – Rushmoor Borough Council		
Deadline 6 Submission - Comments on the draft Development Consent Order submitted at Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
	<p>The words “and in any event within 21 days of receipt of the application” at the end of sub-paragraph (3) should also be removed.</p>	<p>under Requirement 23 becomes unreasonably long. For example, without this proviso, further information could in theory be requested on the 41st day after submission of an application for approval under the Requirements, which would then trigger a further 42-day determination period under Requirement 23(1)(b). This would clearly be an unsatisfactory position. The 21-day period is more than sufficient, in the Applicant’s view, for those dealing with applications to notify the Applicant of any further information required by them to consider applications under the Requirements.</p> <p>There is no question of any party being compelled to respond, as the Council says. If no further information is provided by a requirement consultee, then that is not a problem. It simply means that, for the purposes of counting time under Requirement 23, the 42-day period is counted from the day following that on which the application was received (assuming that no other further information has been requested).</p>
	<p>Requirements 29 and 30</p> <p>Notice periods for taking temporary possession of land should be 3 months instead of 14 or 28 days</p>	<p>The Applicant understands that the reference is to articles 29 and 30 of the draft DCO (now 30 and 31), which relate to the power to take temporary possession of the Order land for the purposes of constructing and then maintaining the authorised development.</p> <p>The notice periods in articles 30 and 31 of the draft DCO ensure that the Applicant is able expeditiously to take access to the Order land to construct and maintain the authorised development. To provide for a three-month period instead would impede that process, particularly where the Applicant requires access to land to carry out important maintenance to the pipeline during the five-year maintenance period under article 31.</p> <p>The Applicant is aware that Part 2 of the Neighbourhood Planning Act 2017 would require an acquiring authority to give three months' prior notice of intended entry before taking temporary possession of land. However, Part 2 of the 2017 Act is not in force. Moreover, Parliament is still to designate the date upon which Part 2 will enter into force, nearly three years after it was enacted.</p>



REP6-086 – Rushmoor Borough Council		
Deadline 6 Submission - Comments on the draft Development Consent Order submitted at Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
		<p>That being the case, the Applicant considers that recent DCO precedent is informative and persuasive. Notably, in respect of the Drax Re-power, Abergelli Power and Northampton Gateway Rail Freight Interchange schemes approved by the Secretary of State in 2019, the same notice periods as those contained in articles 30 and 31 of the draft DCO were approved by the Secretary of State.</p> <p>The Applicant therefore considers that the notice periods in articles 30 and 31 are appropriate.</p>



REP6-087 – Rushmoor Borough Council

REP6-087 – Rushmoor Borough Council Deadline 6 Submission - Rushmoor Borough Council's response to ESSO comments to submissions and answers to ExA Questions submitted at Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
1.1	<p>Habitat Loss</p> <p>The Council refers to its submissions on Hearings Action Points 2, 4, and 6 to set out its position.</p>	<p>The Applicant has no further comments to make on this and refers to its previous responses submitted at Deadline 6 (REP6-073 and REP6-075).</p>
1.2	<p>Recreational Pressure</p> <p>In respect of recreational pressure from Southwood Country Park SANG</p> <ul style="list-style-type: none"> • Autumn working - other than within the EA Flood Alleviation Area. • Phased working – Within the Southwood Country Park Site and clear dates to be identified to enable visitors to be given prior notice of disruption. 	<p>The Applicant's environmental assessment has not identified any likely significant effects in relation to Southwood Country Park and therefore does not consider that mitigation is required. The Applicant does not accept the Council's position with regard to displacement of recreational activity.</p> <p>Notwithstanding this, the Applicant is in discussion with Rushmoor Borough Council about opportunities to include aspects of the proposed Cove Brook River and Floodplain Improvement Project within the Applicant's voluntary Environmental Investment Programme (EIP). This sits outside of the Examination process, as it delivers improvements and other measures that are not mitigation, and are not required as part of the application for development consent.</p> <p>In relation to the Council's comments on the timing and duration of works, the Applicant's updated Site Specific Plan (SSP) for Southwood Country Park submitted at Deadline 6 (REP6-057) includes additional information on the timing and duration of works in response to discussions between the Council and the Applicant at and after the February Hearings. This includes autumn working in paragraph 2.1.9 of the SSP. The Applicant has committed to continue working with Rushmoor Borough Council regarding preferred working periods within the SANG which addresses issues of ecology, flooding and other constraints. These discussions</p>



REP6-087 – Rushmoor Borough Council		
Deadline 6 Submission - Rushmoor Borough Council's response to ESSO comments to submissions and answers to ExA Questions submitted at Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
		will inform the final construction programme (paragraph 2.1.3 of the SSP). Paragraph 2.1.11 of the SSP states ' <i>Once the construction programme has been finalised, the local community will be informed and updated in line with the Community Engagement Plan</i> '.
1.3	In-combination impacts of direct habitat loss and visitor displacement from the SANG network	The combined effects of recreational pressure and direct habitat loss do not impact on the conclusions reached in the HRA Report (Application Document APP-130). As noted, the effects to the Thames Basin Heaths SPA of direct habitat loss were assessed to be de minimis (Table D.7 at p. 104 of the HRA Report) and were screened out from appropriate assessment on that basis. Similarly, no likely significant effects are anticipated as a result of displacement of recreational activity (see Table 4.2 at p. 38 of the HRA Report); such displacement would in any event be very low (paragraph 5.28 of the HRA Report) and both temporary and short term in duration. In those circumstances, there is in the Applicant's view no reasonable basis for finding that the combined effects of recreational pressure and direct habitat loss, which taken individually are very small, would lead to adverse effects on the integrity of the Thames Basin Heaths SPA.
2	Reptile surveys at Southwood Country Park The Council considers that the surveys detailed within 7.3.33 and the methodologies were not carried out on the ground, e.g. within Southwood Country Park.	The Applicant has undertaken the following surveys at Southwood Country Park (former golf course): <ul style="list-style-type: none"> • Detailed Phase 1 Habitats survey (2018) with resulting botanical lists and mapping as documented in Environmental Statement (ES) Appendix 7.1 Table B.20 (page 183); Photos 7.1.61 to 7.1.64 (page 319-20); Figures A7.1.106 to A7.1.112 (Application Document APP-080 and APP-081); and • Habitat assessment for reptiles (2018) supported by desk study records. This identified the site as having 'Potential to support medium to high populations of common reptiles'. No presence/absence surveys were undertaken at this location, as the habitat with potential to support high to medium-sized populations was confirmed using existing (Hampshire Biodiversity



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		<p>Information Centre) records of adder, common lizard, grass snake and slow worm. Presence/absence surveys would not have produced any new information to inform the assessment or approach.</p> <p>ES Appendix 7.17: Protected and Controlled Species Legislation Compliance Report (Application Document APP-101) sets out the methodology and approach for works where there are common reptiles in terms of complying with legislation. When using habitat manipulation and displacement, there is no need for population surveys, which are required to inform the level of habitat translocation. The signed Statement of Common Ground between Natural England and the Applicant (REP1-005) states under the matters agreed '<i>That the scope and methods of the ecological surveys are appropriate</i>'.</p>
2	<p>QEP Bat Survey</p> <p>Differences between the number of trees with potential bat roosts identified by the Applicant and Calyx Environmental (for the Council).</p>	<p>The Applicant does not consider that, just because an ecologist commissioned by Rushmoor Borough Council drew a different conclusion as to the number of trees with bat roost potential in a single location, this is grounds for saying that the Applicant's surveys are not legally compliant along the whole 97km route. The Applicant would note that differences of opinion between professionals are highlighted by the fact that Rushmoor's expert concluded that the Fairy Tree (Applicant's - S2700-T8, Rushmoor's - RBC-015) in QEP was not a veteran tree, despite both the Applicant and the Woodland Trust concluding that it is a veteran.</p> <p>As set out in the Applicant's Comments on Responses submitted for Deadline 5 (REP6-075), the Applicant notes some similarity in the survey methodology to that used by Calyx Environmental. However, in addition to a ground-based survey, the Applicant's bat specialists also undertook a tree-climbing survey to investigate and confirm the potential for roosting, to provide more certainty to the results, something not undertaken by Calyx Environmental.</p> <p>A further difference in survey methodology is that the Applicant undertook a survey of trees that displayed features with potential for supporting bat roosts and therefore did not include the trees</p>



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		which have had bat boxes attached to them. The Applicant is aware of the bat boxes present on trees and agrees that, should they contain bats, their relocation would be undertaken in a manner to avoid commission of an offence.
	<p>Tree replacement planting</p> <p>Question about mitigation in respect of TPOs and the trees lost at QEP.</p>	<p>The Applicant has made a number of commitments that would apply to TPOs, including G65 and G86, which are included in the Outline LEMP (REP6-028) and secured under Requirement 12. The Applicant has also committed to replacing trees on a one-for-one basis in accordance with the vegetation reinstatement plans approved under the LEMP.</p> <p>The Site Specific Plan (SSP) for Queen Elizabeth Park (Document Reference 8.57 (3)) confirms that the installation of the pipeline through the Park will not require the removal of any mature or veteran trees. It also confirms that, based on the proposed pipeline alignment identified in the SSP, 30 non-mature trees would need to be removed within the park. These are trees of a lower arboricultural value and are in areas previously discussed with the Council as benefiting from some tree removal.</p>
	<p>Noise mitigation and assessment</p> <p>Currently noise is assessed using a monthly average. A daily average should be undertaken for noise assessment.</p>	<p>The Applicant submitted a further explanation of its position at Deadline 6 in response to ISH5 Action 28 (REP6-074). For the reasons set out in that response, the Applicant considers that a monthly average noise level is a well-established basis for the assessment of construction noise as demonstrated by a number of Nationally Significant Infrastructure Projects where a similar approach has been used as the basis of the construction noise assessment in the associated Environmental Statement. These include:</p> <ul style="list-style-type: none"> • A14 Cambridge to Huntingdon improvement scheme; • A30 Chiverton to Carland Cross; • Network Rail Norton Bridge Area Improvements;



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WR Para Ref	Point raised	Applicant response to point raised:
		<ul style="list-style-type: none"> • Thames Tideway Tunnel; and • Hinkley Point C Connection Project.
	<p>Noise Assessment</p> <p>RBC notes the assessment of day working is confined to the working hours and that there is no data on the potential impact of 24 hour working.</p>	<p>As set out in Requirement 14 of the draft DCO, working outside 0800 and 1800 on weekdays and Saturdays would only occur in the limited circumstances set out in paragraphs (3) and (4) of that Requirement or in emergencies. Therefore, working extended hours may not be required at all, and if it was, it is not currently possible to determine where such 'exceptional' works would occur outside the specified working hours.</p> <p>Whilst the Applicant has sought the right to continue working in certain limited circumstances on an exceptional basis under Requirement 14, the Applicant is not aware of any circumstances where 24-hour working would occur and therefore would question why Rushmoor BC feels such an assessment would be required.</p> <p>Paragraph 3.5.6 of the Outline Noise and Vibration Management Plan (REP6-040) states '<i>the final NVMP(s) will set out the BPM justification for... out-of-hours working and community communication details in accordance with commitment G100</i>'.</p>
	<p>Noise Barriers</p> <p>The use of noise barriers for 1st floor properties and above such as resident of any maisonettes or flats on Ship Lane, Ringwood Road, Cove Road, Nash Close,</p>	<p>The Noise and Vibration Technical Note Addendum Report (REP4-017) has not identified any flats or maisonettes along Ship Lane, Ringwood Road, Cove Road, Nash Close, Ship Alley, Stake Lane or Cabrol Road that would be likely to experience significant effects.</p> <p>In addition, many of the locations where significant effects for noise have been identified are along sections of 'street working', where the working area is narrowed to a single carriageway in many cases. Therefore, any mitigation at such locations would be employed close to the noise source and would therefore be effective in such situations.</p>



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WR Para Ref	Point raised	Applicant response to point raised:
	Ship Alley, Stake Lane or Cabrol Road.	
6	<p>Potential Additional Requirement for Sports Pitches</p> <p>RBC maintains its position an additional requirement is required.</p>	<p>The Applicant has responded to this point during examination (REP5-021), in response to RBC's comments on the ExA's written question PC. 2.7. The Applicant's response was that an additional Requirement should not be imposed. For the reasons set out in that response, it maintains the view, opposed by RBC, that an additional Requirement should not be imposed in the terms proposed by RBC or at all.</p>
7.1	<p>Horizontal Directional Drilling within QEP</p> <p>RBC has been in discussion with HDD experts who have stated that trench excavation for the pipeline will be unable to be undertaken without damage to roots within the RPA's.</p> <p>RBC fully supports the report prepared by the Friends of Queen Elizabeth Park and the options that have been proposed to enable HDD through the park.</p>	<p>The Council has known for two years about proposals in Queen Elizabeth Park. At the pre-application stage, the Applicant struggled to engage with the Council on elements of the work in the park. It is wholly unreasonable to state an intention to submit new information at the final deadline in relation to fundamental issues such as construction techniques. A very difficult scenario would be imposed upon the Applicant if further controls were added, including most notably a requirement for the Council's later approval in relation to the Site Specific Plan for Queen Elizabeth Park, over and above those proposed in the Applicant's draft DCO (Document Reference 3.1 (8)).</p> <p>The Applicant is surprised that an HDD expert is saying that an open trench solution would not be possible without damaging roots within the RPAs. It is not clear on what basis an HDD expert is qualified to give that advice and in any event the Applicant does not consider the advice accurate. The experts referred to by the Council have not attended any hearings to challenge the professional views of the Applicant's experts who were present, nor submitted any written information to the Examination.</p>



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WR Para Ref	Point raised	Applicant response to point raised:
	<p>RBC is intending to commission an expert report from a qualified HDD expert between Deadline 6 and Deadline 7 to enable informed discussion with the applicant on all excavation options before the close of the examination.</p>	<p>The Applicant maintains its position, and notes once again that the Council has advanced no evidence for its position. The Applicant reiterates that it is perfectly feasible to install pipelines through the RPAs of trees using techniques such as air spades, hand digging and vacuum excavation and that for many utility companies this is common practice.</p> <p>The Applicant notes that the Council has had almost six months to commission or provide evidence or a feasibility report stating that HDD is feasible at an appropriate level of risk and yet as the Examination draws to a close, this has still not been forthcoming.</p> <p>The Applicant has provided a number of responses to NUQEP and the ExA during the Examination, expressing its concern with an HDD option beneath the park. The Applicant has now also responded to REP6-110 and REP6-111 at Deadline 7 (Document Reference 8.96) and this includes the provision of borehole data and a Technical Note by subconsultant Horizontal Drilling International (HDI Entrepouse Vinci Group) to further evidence the Applicant's view. The Applicant's response at Deadline 7 (Document Reference 8.96) highlights the lack of evidence provided by the Council and NUQEP in support of the trenchless construction method through the Park which they have proposed.</p> <p>The Applicant has specified a considerable number of areas where trenchless techniques would be used. In particular, there is HDD TC018 feeding into QEP from the west and auger bore TC019 exiting the park to the east and into Farnborough Hill School, so the Applicant has demonstrated that it is not averse to using trenchless techniques where the underlying geology is able to support such an approach.</p> <p>The Applicant has undertaken a number of boreholes in this location to bolster the publicly available borehole detail that is available (Appendix 1). The publicly available borehole data sheets and those now undertaken by the Applicant confirm that the underlying geology is made up of bands of sands and gravels. There are a number of trenchless techniques which work</p>

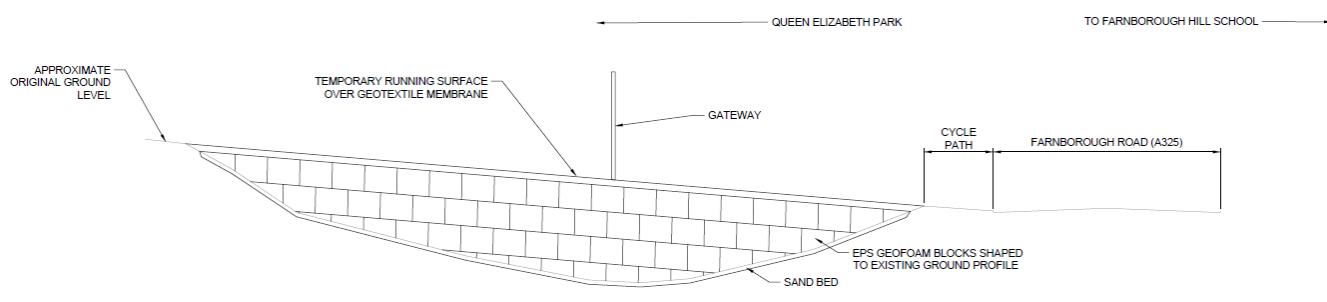


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WR Para Ref	Point raised	Applicant response to point raised:
		<p>better in such ground conditions and likewise the ground conditions also dictate what can be achieved from a directional and installation perspective.</p> <p>NUQEP has suggested two additional potential routes and the Applicant has responded later in this document to REP6-110 and REP6-111 to address these. However, the Applicant would raise the following points which apply not only to the routes suggested by NUQEP (Mr Jarman) but to any route that could be proposed:</p> <ul style="list-style-type: none"> • As the Applicant explained at the post hearing meeting with Mr and Mrs Jarman, Mrs Stuart and Ms Salmon on 27 February 2020, the significant challenge is the numerous directional changes which would be required to retain the pipe within the Order Limits. The Applicant does not consider that it would be possible to stay within the Order Limits for this alignment. The drill has an endpoint within Farnborough Hill School which must be met as the length and layout of the pipe string can only be derived from a particular location. To achieve this, not only is the drill required to make vertical changes in direction, it would also have to make horizontal directional changes, which the geology will not readily support. The Applicant may have to undertake several attempts to drive the HDD through due to these ground conditions, which would significantly increase the time works are undertaken within the park. Whilst it may be possible to steer the pilot drill through these numerous directional changes, the risk increases exponentially when the reamer is pulled back, which enlarges the bore to a sufficient size to allow the pipe string to be pulled back. • With horizontal and vertical changes in direction, referred to as a compound curve, and the underlying geology of sands and gravels, it is extremely unlikely that the geology will allow the hole to remain open to allow the string to be pulled back. This is due to the make-up of the substrate of sands and gravels being considered unstable for HDD operations of this magnitude (see attached borehole data at Appendix 1). In order to try



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WR Para Ref	Point raised	Applicant response to point raised:
		<p>to keep the bore open, bentonite/mud would need to be pumped into the bore. This is designed to form an open tube through which the pipe string can be pulled back, however sands and gravels are well known to have numerous voids and loose areas. These can provide pathways which allow the pressurised bentonite/mud to 'frac' or 'break out'. This means that the pressurised bentonite/mud could flow, uncontrolled, from underground to the surface. The location of where the liquid reaches the surface would depend on the size and location of the pathway. Whilst the bentonite/mud is not toxic, it can nevertheless cause environmental impacts (including to vegetation, animals and water receptors). Wherever it is found, it would require an environmental clean-up which may involve the removal of topsoil. The need to avoid potential 'frac out' is well understood by experienced HDD engineers. Further information regarding risks and consequences of 'frac/break outs' can be found at https://utilitymagazine.com.au/what-is-a-frac-out-in-hdd.</p> <ul style="list-style-type: none"> • Other than the risks noted above, there is still a strong possibility that a number of trees would need to be removed within Farnborough Hill School. The Applicant has covered these in its response at Deadline 5 (REP5-021). • The Applicant still maintains that the significant risks associated with this proposal with regard to geology and certainty of achieving the HDD, along with the transfer of impact to the Farnborough Hill School poses far greater additional risks, including impacts on the school, greater tree loss, and potential significant long-term environmental damage (to the park and surrounding residents' properties). • The Applicant has greater certainty by undertaking an open trench approach through the park, than the proposed HDD proposal and through the commitments made to working techniques believes the impact and overall risk to the project to be lower.

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WR Para Ref	Point raised	Applicant response to point raised:
<p>7.2</p>	<p>New works access off the A325</p> <p>The Council states that the area identified for the auger pit is completely covered by RPZs, and that damage to the root zones within this area would cause significant damage to many mature trees and lead to fragmentation of the vegetated corridor along the A325 in the medium to long term.</p>	<p>The Applicant can confirm that its engineers are fully aware of both the topography and tree locations and is confident it can deliver the project whilst complying with the commitments which are secured by the draft DCO.</p> <p>A sketch below (illustration 1) demonstrates that by using lightweight <i>geofom</i> block on a bed of sand, no damage or compaction of the RPAs is likely to be experienced.</p> <p>In addition, arboricultural experience indicates that by locating the auger pit in the area of the pond, although within RPAs, few or no roots are likely to be encountered due to the low oxygen and saturated nature of the ground.</p> <p>Illustration 1: Queen Elizabeth Park entrance from A325</p>  <p style="text-align: center;">CROSS SECTION THROUGH ACCESS INTO QUEEN ELIZABETH PARK FROM FARNBOROUGH ROAD (A325) SCALE 1:100 (HORIZ) 1:50 (VERT)</p>



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WR Para Ref	Point raised	Applicant response to point raised:
7.3	<p>Alternative car park provision</p> <p>RBC is concerned that the existing car park is only an overflow car park and is unsurfaced, becomes boggy and unusable, and is extremely small. The facility would require significant upgrading with hard surfacing and drainage.</p>	<p>The Applicant agrees that the QEP East car park, which is owned and managed by the Council, is in a poor condition. The Applicant does not accept that it should be expected to refurbish this area, and this is not proposed within the DCO application. The Applicant would note that the upkeep and maintenance of this car park and the areas of QEP that are situated outside of the Order Limits remain the responsibility of RBC.</p> <p>Notwithstanding the above, the Applicant recognises that there is the potential for increased use of the QEP East car park during the period the Cabrol Road car park is out of use. In recognition of this the Applicant is willing as part of its voluntary land agreement to fund the costs of some simple maintenance works that will enable the car park to accommodate a short-term increase in use.</p>
7.4	<p>NEAP Provision</p> <p>RBC has met with the applicant and have identified that a natural, age appropriate play space could be accommodated within the glade.</p>	<p>The Applicant can confirm that the permanent replacement of the existing NEAP is secured by the DCO through commitment OP05 in the CoCP (Document Reference 6.4 Appendix 16.1 (5)).</p> <p>In relation to the proposed temporary play equipment to be provided within QEP during the construction period, the Applicant attended a meeting with Rushmoor Borough Council on 10 March and has continued to discuss the location and detail of the proposals since then with the Council.</p> <p>A location for temporary play equipment has been identified within a glade in QEP, and agreed in principle between the Applicant and Council. The parties are continuing to negotiate the land agreement, and any side agreement, to secure and facilitate the provision of the temporary play equipment at this location.</p>



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WR Para Ref	Point raised	Applicant response to point raised:
		Should for any reason the location in the glade not be available, Commitment OP05 of the CoCP confirms that <i>'the alternative play area would ... be provided by the Project within the Order Limits in the vicinity of the existing play area on land belonging to Rushmoor Borough Council'</i> . The Applicant has also identified a suitable location for the temporary facilities, within Order Limits, on the drawing at Appendix B of the SSP to illustrate that this commitment is entirely deliverable. In addition, the Applicant's selected supplier for the temporary play area has confirmed that a Locally Equipped Area for Play (LEAP) can be provided in the area identified in the SSP. The Applicant's selected supplier for the temporary play area is a nationally renowned company with over 30 years' experience of building bespoke play spaces, which includes installing equipment in woodland settings.
1.2	<p>Comments to the Environment Agency representations</p> <p>The council notes that there are still some outstanding issues between the EA and the applicant in regards to Cove Brook.</p>	<p>The Applicant can confirm that it has agreed the wording of commitment G171 with the Environment Agency and it states <i>'the tributary of the Cove Brook (WCX047) would be subject to constraints between 15 March and 15 June. Any open cut crossing or in-channel works will only take place outside of the stated exclusion period. All dates are inclusive'</i>. The commitment is included within the Outline Construction Environmental Management Plan (REP6-030) which is secured by Requirement 6. The Applicant can confirm that there are no outstanding matters between the Environment Agency and the Applicant in relation to Cove Brook; see the signed Statement of Common Ground submitted at Deadline 6 (REP6-011).</p>



REP6-088 – Rushmoor Borough Council

REP6-088 – Rushmoor Borough Council Deadline 6 Submission - Summary of oral submission at Issue Specific Hearings		
WR Para Ref	Point raised	Applicant response to point raised:
N/A	<p>Compulsory acquisition hearing</p> <p>The key points made were as follows:</p> <p>a. That the negotiations relating to Cove Cricket Club are separate to the rest of the land owned by Rushmoor.</p> <p>b. That in relation to that land, it is optimistic to think that the Heads of Terms as presently drafted will be agreed prior to the end of the examination period.</p>	<p>a) The Applicant agrees that the agreement relating to Cove Cricket Club is separate to that for the land owned by Rushmoor Borough Council. This agreement is presently being progressed by both parties' solicitors and no major obstacles to completion are presently foreseen.</p> <p>b) The Applicant acknowledges that several points of disagreement remain over the heads of terms for the land owned by Rushmoor Borough Council and is continuing to engage with the Council to seek an agreement. The Applicant is currently seeking to agree heads of terms prior to the close of the examination.</p>
2a	<p>Part 6, Article 41 (felling or lopping) This duplicates the point made in REP6-086</p>	<p>This is addressed in the Applicant's response to REP6-086 above.</p>



REP6-088 – Rushmoor Borough Council		
Deadline 6 Submission - Summary of oral submission at Issue Specific Hearings		
WR Para Ref	Point raised	Applicant response to point raised:
2b	<p>Requirement 8 (Vegetation)</p> <p>The Council seeks provision for approval and stated that it is not an additional burden for the Applicant to submit plans for approval. The Order Limits are relatively wide and there are areas other than those covered by the SSP where there is substantial vegetation e.g. Old Ively Road and the two railway corridors.</p>	<p>The Applicant reiterates its position explained in writing (REP6-071) and oral submissions at examination hearings that it resists any requirement for the approval of this plan by relevant planning authorities. This is on the basis that the Applicant's requirement to determine the final route of the pipeline and to remove vegetation within the Order Limits to deliver that final alignment would be devoid of any value if a power to veto vegetation removal and retention was conferred upon local planning authorities.</p> <p>The Applicant would also like to point out that, beyond Southwood CP and QEP, both covered by Site Specific Plans, the majority of the route within Rushmoor is either in the road, such as Old Ively Road, or is covered by trenchless construction techniques such as the railway corridors, so it has to understand where the project is likely to encounter 'substantial vegetation'.</p>
2c	<p>Requirement 12 (LEMP) and commitment G86</p> <p>The provision is inadequate as drafted. It should be supervised by an arboriculture expert. Furthermore, in relation to commitment G97, shrub planting might not be deemed appropriate and indeed this commitment might not be necessary.</p>	<p>The Applicant added a suitably qualified and experienced arboriculturalist to the list of the roles and responsibilities in Table 3.1 of the Outline CEMP at Deadline 6 (REP6-030).</p> <p>The Applicant confirmed at ISH5 that the purpose of proposing shrub planting in woodland areas was to give reassurance that a strip of land over the easement would not be left bare or unvegetated. The Applicant also confirmed that if the Council wants the easement reinstated with some other form of vegetation, then it would be happy to discuss that option.</p>



REP6-088 – Rushmoor Borough Council Deadline 6 Submission - Summary of oral submission at Issue Specific Hearings		
WR Para Ref	Point raised	Applicant response to point raised:
2d	<p>Requirement 17 (Site Specific Plans – SSP)</p> <p>The plans are welcomed but they require further detail and further work. The SSP's should be subject to approval by the local authority. The aim is not to govern route selection but to control environmental impacts.</p>	<p>The Applicant has provided a response at Deadline 7 to the ExA's draft DCO (Document Reference 8.92), including specifically the issue of the proposed new requirement relating to the Council's approval of the QEP SSP. That response is not repeated here, but for the avoidance of doubt the Applicant strongly disagrees with the proposed new Requirement.</p> <p>The Council has provided no detailed response on the draft SSP, and the request by the Council for 'further detail and further work' is not explained. Deadline 7 would be too late to make such a submission.</p> <p>The Applicant has made amendments to the QEP SSP to reflect ongoing discussions and work, and the updated QEP SSP is submitted at Deadline 7 (Document Reference 8.57 (3)).</p>
2e	<p>Requirement 3 (Stages of authorised development)</p>	<p>The Applicant has provided a response to this point in its response to REP6-086 above.</p>
2f	<p>In Requirement 14 (construction hours)</p> <p>The first part duplicates the point made in REP6-086.</p> <p>The Council remains concerned about the disturbance caused by 24 hour working to residents and would encourage provision in requirement 14 to allow for temporary relocation where</p>	<p>The Applicant has responded to the first part in its response to REP6-086 above. In relation to any potential highway works outside of normal hours, the Applicant notes that in its Deadline 6 submissions (REP6-095), Surrey County Council confirms that it '<i>always considers residents' environmental health concerns when making decisions</i>'. Whilst Rushmoor is not in Surrey, the Applicant understands that Hampshire and Surrey County Councils are aligned in their approaches to the application of their respective permit schemes. The Applicant considers that this provides associate assurances and safeguards about the way in which the provision would be applied in practice.</p> <p>As set out in Requirement 14 in the draft DCO, working outside 0800 and 1800 on weekdays and Saturdays would only occur on an exceptional basis. Therefore, such extended working may not be required at all, and if it was, it is not currently possible to determine where such 'exceptional' works would occur outside the specified working hours.</p>



REP6-088 – Rushmoor Borough Council Deadline 6 Submission - Summary of oral submission at Issue Specific Hearings		
WR Para Ref	Point raised	Applicant response to point raised:
	working will extend into the night time period.	The Applicant has previously responded to the Council's suggestion that temporary re-housing may be required in its response at Deadline 6 (REP6-075). The Applicant maintains its view that temporary re-housing is not proportionate to the level and duration of noise impacts and that there is no need to require this as part of the DCO.
2g	<p>Requirement 6 (CEMP)</p> <p>RBC is concerned that pre-commencement works could be decided on the Council's land especially within SCP and QEP with no consultation with the council.</p> <p>There remains a concern on behalf of the local authority about the contents of the CEMP as summarised in the Council's Deadline 4 submissions.</p>	<p>The Applicant is seeking the ability to undertake some low-impact pre-commencement works on land within the Order Limits, prior to the formal discharge of Requirements under Schedule 2 of the draft DCO. This includes taking access to land for pre-commencement surveys and investigations, since the data gathered from those surveys and investigations will inform the detailed plans, such as the CEMP and LEMP, which would be submitted to local planning authorities for approval.</p> <p>However, it should be noted that, in respect of both Southwood Country Park and Queen Elizabeth Park, the Applicant would be required to comply with the commitments set out in the SSPs for those locations <i>at all times</i>, including in relation to any pre-commencement activities and works. This is because the obligation to comply with those plans under Requirement 17 of the draft DCO is not contingent upon the commencement of the authorised development, in the same way as the CEMP or the LEMP, for example.</p> <p>Further, the provisions of the draft DCO which would enable the Applicant to take access to land for surveys (article 20) or for carrying out the authorised development (article 30) are contingent upon prior notice being given to the owner of the land. It is not therefore a case of the Applicant simply taking access to land and carrying out surveys and works without any prior consultation with landowners.</p> <p>The Applicant responded to the Council's comments on the content of the Outline CEMP as part of its comments on responses submitted for Deadline 4 (REP5-021).</p>



REP6-088 – Rushmoor Borough Council		
Deadline 6 Submission - Summary of oral submission at Issue Specific Hearings		
WR Para Ref	Point raised	Applicant response to point raised:
2h	<p>Requirement 13</p> <p>Concerns about the lack of survey.</p>	<p>The Applicant does not believe that the baseline studies undertaken by its team of ecologists, is deficient or lacking in detail to allow an adequate assessment to have been undertaken.</p> <p>The Applicant would again like to confirm that the methodology for the full programme of ecological surveys was provided with the Scoping Report and Rushmoor Borough Council (BC) raised no concerns.</p> <p>Natural England has confirmed its agreement with this ecological survey methodology in the Statement of Common Ground (SoCG) (REP1-005).</p> <p>The Environmental Impact Assessment (EIA) concluded that there would be no significant impacts on protected species, and Natural England has issued Letters of No Impediment for the Draft European Protected Species licences. Therefore, the Applicant feels that the statement that 'to ensure conformity with the law' is unfounded.</p>
2i	<p>Requirement 21 (Register of Requirements)</p> <p>This Register needs to be in place prior to the submission of applications under requirements.</p>	<p>The wording of the requirement was amended by the Applicant at Deadline 6 to reflect this point.</p>
3a	<p>Breeding territories</p> <p>The Council confirmed the source of the figure of the 48 breeding territories.</p>	<p>The Applicant notes this response, and the detail provided in (REP6-089) below, noting that the Council accepts in (REP6-089) below that the figure is 46, not 48 territories.</p>



REP6-088 – Rushmoor Borough Council Deadline 6 Submission - Summary of oral submission at Issue Specific Hearings		
WR Para Ref	Point raised	Applicant response to point raised:
3b	<p>Environmental Investment Programme – scope and delivery</p> <p>There was confirmation that the provision of a pond at QEP was not agreeable. Furthermore, it was clarified that the Environmental Improvement Plan (EIP) is not secured within the draft DCO and therefore cannot be relied upon by the ExA, a point which was accepted by the Applicant.</p>	<p>The Applicant can confirm that among the various activities proposed in its Environmental Investment Programme (EIP) it has offered to restore the pond adjacent to the existing play area. In addition, reinstatement within the working areas will include the eastern pond at the location of the auger bore as noted in the SSP. The Applicant has not offered the provision of a new pond.</p> <p>As the EIP is entirely voluntary, such restoration work would not be included if the landowner, in this case Rushmoor Borough Council, does not want it.</p> <p>The Applicant can confirm that the EIP is separate to the DCO and does not form part of the Examination and does not need to be secured by the DCO, or relied on by the ExA.</p> <p>For the avoidance of any doubt the Applicant wishes to stress that despite what is said by the Council the EIP measures are not mitigation.</p>
3c to 3m	<p>Biodiversity, consideration of the Applicant's HRA, and related issues</p> <p>The Council's summary of oral submissions set out a series of matters as submitted to the hearing, including a number of "post hearing notes".</p>	<p>The Applicant responded to the Council's case, orally at the hearings and in its written submissions of its oral case, submitted at Deadline 6 (REP6-073).</p> <p>The Applicant continues to disagree with the Council in a number of respects, as is clear from those submissions, and does not seek to repeat all of the submissions below. There are, however, a number of discrete matters where the Applicant does need to provide a further response to the information submitted by the Council at Deadline 6, as set out below.</p> <p>Under points 3e, 3h and 3j, the Council comments on the removal of habitat within the SPA. The Applicant has previously explained that there would be no habitat removal at all. The Applicant would also emphasise a point raised at the hearing that there is extensive habitat manipulation within the SPA annually as part of its management, undertaken without adverse impact. In the Chobham Common SSSI component of the SPA alone the Surrey Wildlife Trust's aim is to clear</p>



REP6-088 – Rushmoor Borough Council Deadline 6 Submission - Summary of oral submission at Issue Specific Hearings		
WR Para Ref	Point raised	Applicant response to point raised:
		<p>10ha annually. Natural England has confirmed that in 2018 this included significant areas of bare ground creation, heather turf stripping and mowing. Similar works are undertaken in the other SSSI components of the SPA.</p> <p>Under point 3f, the Council states that the Hampshire and Isle of Wight Wildlife Trust have not expressed agreement with the Applicant's position, and state that '<i>they do not have the resources to consider the proposals</i>'. This is incorrect. The draft SoCG submitted at Deadline 2 (REP2-013) remains the Applicant's understanding of the agreed position. As is noted in the Applicant's cover letter submitted at Deadline 6 (REP6-001):</p> <p><i>'In an email of 7 October 2019, the trust advised that their Executive Committee had discussed the document and stated "I am afraid the position is that we are not comfortable signing the Statement of Common Ground because of how it may be construed e.g. from a climate emergency point of view. This was not taken lightly and was in the full knowledge of the direct ask from PINS and the position of Surrey WT who say they are happy to sign their SOCG. Also, it is not a reflection on the positive engagement we have had with the project team regarding the site we manage at Bourley & Long Valley".'</i></p> <p>Under point 3g and 3n, the Council comments in relation to the timing and duration of works in Southwood Country Park and its request for funding towards the Cove Brook Enhancement Project. The Applicant has responded to these points in its response to REP6-079 above.</p>
3o	<p>Mitigation of Construction Impacts</p> <p>RBC comments on the proposed trench through Blackwater Valley (Frimley</p>	<p>The Applicant's intention is to cross the Blackwater valley using a trenchless technique. The Applicant is working with engineering specialists to design a solution which is both workable and reduces any potential risks to pollution or disturbance to this sensitive area.</p> <p>In the event of an open trench crossing of the Blackwater Valley being adopted as the final construction methodology, the CEMP (and appendices, including the Water Management Plan) and LEMP would detail the construction proposals for this works item, including details of reinstatement, all to be submitted for the approval of the relevant planning authority(s). This is</p>



REP6-088 – Rushmoor Borough Council		
Deadline 6 Submission - Summary of oral submission at Issue Specific Hearings		
WR Para Ref	Point raised	Applicant response to point raised:
	Bridge) SINC which is known to be an unofficial landfill.	secured by DCO Requirements 6 (CEMP) and 12 (LEMP). Appendix B1 to the Outline Water Management Plan (REP6-034) contains additional measures relating to the Blackwater Valley crossing, should this ultimately need to be undertaken as open trenching, rather than the Applicant's preferred trenchless construction method.
3p	<p>Construction Traffic Management Plan</p> <p>RBC consider that sign off for works under the CTMP should be by the Local Planning Authorities.</p>	This is answered in the Applicant's response to REP6-086 above.
3q	RBC would not agree that suitably qualified personnel on site should agree changes to any authorised plans or mitigation on site, but would advocate that the relevant Local Authority's approval should be required.	As noted in Requirement 20, <i>'the approved details must be carried out as approved unless an application for an amendment or variation is previously agreed, by the relevant planning authority'</i> . The Applicant does not consider that any additional wording or change is required.
3r	Currently noise is assessed using a monthly average. A daily average should be undertaken for noise assessment.	The Applicant submitted a further explanation of its position at Deadline 6 in response to ISH5 Action 28 (REP6-074). For the reasons set out in that response, the Applicant considers that a monthly average noise level is a well-established basis for the assessment of construction noise as demonstrated by a number of Nationally Significant Infrastructure Projects where a similar approach has been used as the basis of the construction noise assessment in the associated Environmental Statement. These include:



REP6-088 – Rushmoor Borough Council		
Deadline 6 Submission - Summary of oral submission at Issue Specific Hearings		
WR Para Ref	Point raised	Applicant response to point raised:
		<ul style="list-style-type: none"> • A14 Cambridge to Huntingdon improvement scheme; • A30 Chiverton to Carland Cross; • Network Rail Norton Bridge Area Improvements; • Thames Tideway Tunnel; and • Hinkley Point C Connection Project.
3s	<p>Commitment G97</p> <p>In relation to commitment G97 in the LEMP, the use of native shrubs might be inappropriate in certain locations.</p> <p>RBC also require clarity that any planting within the order limits is in addition to the tree planting and that tree planting to mitigate net loss will be undertaken within the borough. In order to avoid net loss the applicant would need to look outside the order limits.</p>	<p>The Applicant has updated G97 (secured through Requirement 12 - LEMP) to clarify the Applicant's intent and to confirm that the vegetation reinstatement plans are to be approved by the relevant planning authorities as part of the LEMP. Therefore, Rushmoor Borough Council will be able to contribute to discussions on appropriate reinstatement.</p> <p>In response to no net loss, the Applicant responded to this point in REP6-074. The Environmental Statement concludes that there will be no residual impacts on biodiversity. The application is for a buried pipeline, where all infrastructure would be underground (except for limited locations at the pigging station and the valves). Any habitats temporarily lost during construction would be reinstated following installation (in the appropriate growing season). Post installation, hedgerow gaps would be replanted, open cuts through water crossings reinstated, woodland replanted (to include shrub planting directly over the pipeline), grassland re-seeded and heathland habitats left to naturally regenerate.</p> <p>As per commitment G200, trees that are removed as a result of the construction of the project will be replaced on a one-for-one basis in accordance with the vegetation reinstatement plans approved under the LEMP (Document Referent 8.50(3)). Where possible, replacement tree planting will be located at or in close proximity to the original tree. It should be noted that such tree reinstatement would not apply to areas where tree removal is for habitat improvement reasons (supplementary good practice measures), such as at Chobham Common, and this has</p>



REP6-088 – Rushmoor Borough Council		
Deadline 6 Submission - Summary of oral submission at Issue Specific Hearings		
WR Para Ref	Point raised	Applicant response to point raised:
		been agreed with Natural England and the relevant landowners. The Applicant is confident that there is sufficient space within the Order Limits to undertake the required reinstatement planting.
3t	<p>Queen Elizabeth Park</p> <p>The SSP needs to be updated to the British Standard (BS).</p>	The Applicant has committed to comply with BS 5837:2012 and updated the relevant documents to this effect at Deadline 6, including the SSP for Queen Elizabeth Park (REP6-051).
3u	<p>Queen Elizabeth Park</p> <p>Regarding the play area that there seems to be an agreed solution however presently there are no means to secure it and this needs to be provided by the applicant.</p>	This is answered in the Applicant's response to REP6-087 above.
3v	<p>Queen Elizabeth Park</p> <p>RBC would like to clarify that the local authority is promoting trenchless working in QEP. This might result in a temporary impact in Farnborough Hill School grounds and the conservation area, which is accepted.</p>	<p>The Applicant strongly objects to having to agree the installation technique for the pipeline through the park with the local authority. To date, neither the local authority nor the Neighbours and Users of Queen Elizabeth Park (NUQEP) have been able to evidence that they have the expertise required to be able to make such a technical decision.</p> <p>To impose a requirement for the approval of the SSP by the relevant planning authority, will simply leave open for later debate matters which have been discussed at length during the course of this examination but in respect of which no consensus has been reached. The Applicant has proposed a route for the purposes of this application, as set out in the Queen Elizabeth Park SSP, which is secured by Requirement 17. That route has been assessed and can be delivered whilst respecting the commitments made in the SSP (REP6-052). The Applicant</p>



REP6-088 – Rushmoor Borough Council Deadline 6 Submission - Summary of oral submission at Issue Specific Hearings		
WR Para Ref	Point raised	Applicant response to point raised:
		<p>considers that the package of commitments set out in the SSP ensure that its proposal can be delivered in a way which minimises harm to this sensitive location. In the Applicant's view, this fact, together with the submissions made by the Applicant explaining why alternative solutions proposed by interested parties are not viable, or are less viable than its own solution, mean that it would be entirely inappropriate to provide for the approval of the SSP at a later date.</p> <p>The SSP can, and should, be approved now and there must be no scope for fundamental decisions, such as construction methodology, to be deferred by the Secretary of State. If it were deferred in that way, then the Applicant would be very concerned about the deliverability of this scheme.</p> <p>The Applicant has responded in further detail to the Examining Authority's suggested changes to the draft DCO, including a bespoke Requirement for Queen Elizabeth Park, as part of the comments on the ExA's Draft DCO (Document Reference 8.93).</p> <p>Turning to the specific question of construction methodology through the park, the Applicant has utilised its extensive engineering experience and called on its professionals to alight upon the route and construction methodology selected. The Applicant has undertaken ground condition surveys (boreholes) to further expand its understanding of the underlying geology of the area. It has also analysed this evidence (Appendix 1) in line with long established practice, to conclude that the geology does not support the installation of a complex compound curve HDD through this section of the route, given the multiple changes in horizontal direction that would be required.</p> <p>Further to support the Applicant's submitted route, the Applicant has also commissioned a technical report (Appendix 2) to provide an independent viewpoint from a world renowned HDD installation company (HDI Entrepose - VINCI Group) which supports the Applicant's decision not to select a HDD methodology for the section of the pipe through Queen Elizabeth Park. The Applicant can confirm that, to ensure that any HDD solution was of an acceptable risk profile for this section of the route, it would need to be a straight drill, taking a direct route from the play area into Farnborough Hill School. The consequences of such a route have been illustrated on</p>

REP6-088 – Rushmoor Borough Council
Deadline 6 Submission - Summary of oral submission at Issue Specific Hearings

WR Para Ref	Point raised	Applicant response to point raised:
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the sketch below which would route the pipeline outside of the Order Limits. As can be seen, the trenchless section would cross the A325 into the Farnborough Hill School grounds, and once in the grounds, a reception pit would require trees within the school to be removed. The Applicant did consider a similar route in its response to DL3 ([REP3-013](#)).

Illustration 2: Single straight HDD through QEP Option





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Deadline 6 Submission - Summary of oral submission at Issue Specific Hearings		
WR Para Ref	Point raised	Applicant response to point raised:
		<p>Whilst a straight HDD removes the complexities associated with a compound curve solution which was previously proposed by NUQEP, the alignment now requires the A325 to be crossed at an angle which has the potential to compromise the A325 substrate and would require acceptance by the Highways Authority. The reception pit and pipe string would require tree removal within the school grounds, a conservation area. The topography for the pipe string appears to rise and fall over a localised elevation change and using the contour data available to the Applicant, it would appear that the elevation change is such that it would not support a 400m radius bend and achieve the required depth beneath the A325. Therefore, to be able to run out a pipe string would require the ground level to be flattened out within the school grounds, to be able to accommodate the natural vertical radius of the pipe string. The pipe string would also have an impact on Farnborough Hill School's main access route into the school. In addition, the pipe string would need to be laid in an area outside of the Order Limits across the playing fields. As the proposal has come so late in the examination process, the Applicant has had no conversations with Farnborough Hill School regarding any of the impacts this new proposal would place on the school. This further serves to underscore the significant problems associated with imposing a requirement for the later approval of the SSP, given that interested parties are now (and presumably will be in future) proposing a route which the Applicant would simply have no power to deliver.</p> <p>The Applicant has also responded to the NUQEP suggested alternative HDD Launch Area, later in this document in its response to REP6-111.</p> <p>To date, the Applicant does not believe that sufficient, credible evidence has been presented by interested parties which would call into question the solution proposed by the Applicant.</p> <p>The Applicant would reiterate that it has utilised trenchless techniques in 40 locations along the 97km of the route, and indeed TC018 and TC019 are used at both sides of the park. This demonstrates that the Applicant is in no way averse to the use of trenchless technology, where</p>



REP6-088 – Rushmoor Borough Council		
Deadline 6 Submission - Summary of oral submission at Issue Specific Hearings		
WR Para Ref	Point raised	Applicant response to point raised:
		appropriate, but in every case this has been assessed by experts to be within the range of tolerable risk.
3w	<p>Queen Elizabeth Park</p> <p>Representations were made by the local residents that they are willing to assist the Applicant in finding possible solutions to allow trenchless working to be done in QEP.</p>	<p>The Applicant welcomes the willingness of local residents to assist but again must highlight that despite being close to the end of the six month examination period, neither the Neighbours and Users of Queen Elizabeth Park (NUQEP) nor the Council have provided evidence (such as any detailed design) from a suitable specialist that would suggest a trenchless solution is feasible and deliverable within the Order Limits.</p>



REP6-089 – Rushmoor Borough Council

REP6-089– Rushmoor Borough Council Deadline 6 Submission - Response to hearing Action Points arising from the Issue Specific Hearings 24th- 25th February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
<p>DCO Action point 5</p>	<p>Requirement 12 RBC do not agree that the wording within Requirement 12 will provide adequate protection for veteran, notable and protected trees as the wording does not protect the trees from felling, loping and other works or from disturbance or other impacts within the Root Protection Zones. The Council is concerned regarding the trenching proposed within two areas, Old Ively Road and within QEP where significant numbers of notable and veteran trees are present within or adjacent to the order limits. RBC can find no</p>	<p>The Applicant notes that, once again, the statement that works cannot be undertaken without damaging the trees is not evidenced by Rushmoor BC. The Applicant would again reiterate that it is perfectly feasible to install pipelines through the RPAs of trees using techniques such as air spades, hand digging and vacuum excavation and that for many utility companies this is common practice.</p> <p>The Applicant can confirm that the trees along Old Ively road are not Ancient Woodland (Application Document APP-083). The proposed alignment along Old Ively Road is solely within the existing tarmac carriageway, so impacts to trees are not anticipated.</p> <p>The Council states it can find no solution other than HDD within root protection areas and that this is the only construction method to ensure no damage to important trees. Again, the Applicant is surprised at this unsupported statement and would expect the Council's Tree Officer to be familiar with techniques such as vacuum excavation or hand digging as suggested by BS 5837.</p>



REP6-089– Rushmoor Borough Council Deadline 6 Submission - Response to hearing Action Points arising from the Issue Specific Hearings 24th- 25th February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
	solution other than to HDD within these areas.	
DCO Action Point 21	<p>Requirement 8</p> <p>The council would suggest that the definition below should cover all vegetation 'Vegetation would include – trees, hedgerows and shrubs, natural habitats including woodland, acidic and calcareous grassland, wetland and heathland, bankside and marginal riparian habitats, and ornamental planting'.</p>	<p>The Applicant does not consider it necessary to include specific habitats within the definition. The Applicant considers its response at Deadline 2 to be sufficient that vegetation '<i>includes plants collectively, including trees and hedgerows</i>'.</p>
Env Action point 2	<p>The information within the HRA breaks the breeding territories down into SSSI sites and bird species so there is no overall number of territories quoted. As a point of correction the territories add up to 46 rather than 48 breeding territories. The</p>	<p>The Applicant confirms that the number of breeding territories is 46.</p>



REP6-089– Rushmoor Borough Council		
Deadline 6 Submission - Response to hearing Action Points arising from the Issue Specific Hearings 24th- 25th February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
	council apologises for this error.	
Env Action Point 4	To provide information as to how the 48 breeding territories are divided across the Site of Special Scientific Interest (SSSI).	The Applicant confirms that the Rushmoor information is correct (for the 46 territories).
Env Action Point 6	RBC confirmed the source of the figure of 47.6ha identified as the amount of supporting habitat for breeding birds in para 2.2.1 of [RR-293] that would be affected.	The Applicant has no comments in response.
Env Action point 12	<p>Environmental Investment Programme</p> <p>RBC is of the view that the EIP does not provide the mechanism to secure the appropriate mitigation for the impact to the habitats and species within the Natura 2000 network and throughout our land holdings.</p>	<p>The Applicant refers Rushmoor Borough Council to the Habitats Regulations Assessment Report (Application Documents APP-130 and APP-131) which includes the mitigation required for impacts on the Natura 2000 network. These measures were included in the Schedule of HRA Commitments at Deadline 6 (REP6-078).</p> <p>The Environmental Statement concludes that there are no significant effects to ecology and therefore mitigation is not required. The Applicant confirms that the EIP does not include mitigation, it is for improvements that lie outside of the examination process.</p> <p>The Applicant is continuing to discuss potential improvements as part of the EIP with RBC outside of the examination process.</p>



REP6-089– Rushmoor Borough Council Deadline 6 Submission - Response to hearing Action Points arising from the Issue Specific Hearings 24th- 25th February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
Env Action Point 14	<p>SOCCG</p> <p>The Council continue to rely upon its legal submissions provided at D3 and D5, which it notes the Applicant does not support. Therefore, regrettably, an agreed SoCG on the matter of the status of the HRA is not possible.</p>	<p>The Applicant's position is as set out in its previous submissions to the Examination.</p>
Env Action Point 21	<p>Southwood Country Park SANG</p> <p>This has been designated to accommodate proposed development in Farnborough and Aldershot town centres. RBC to confirm if any of the capacity of this SANG has already been allocated to consented development.</p> <p>Total requirement = 5491.6 Southwood capacity = 5250 As can be seen the allocations made and expected exceed the Southwood Capacity. It is</p>	<p>The Applicant would refer to the measures set out within the SSP for Southwood Country Park (REP6-057):</p> <ul style="list-style-type: none"> • The SANG will remain open for people to visit for recreation. Car parking provision will remain available (para 3.1.1). • The working area and compounds will be securely fenced at all times, therefore the use of the SANG for the walking of dogs off the lead will be retained. • The circular walks will be retained with small diversion and/or crossing points see commitment OP04 in the CoCP (Document Reference 6.4 Appendix 16.1 (5)). • The Community Engagement Plan will secure communication with users to give notice of the works and the implications of the construction activity. <p>The Applicant would like to note that there is a difference between allocation of SANG and the properties having been built and sold to residents who would make up the users of the SANG. In the Council's latest Housing Land Supply document (June 2019) it identifies [page 9, table under para 3.6] that at least 750 of the Aldershot and Farnborough Town Centre regeneration</p>



REP6-089– Rushmoor Borough Council		
Deadline 6 Submission - Response to hearing Action Points arising from the Issue Specific Hearings 24th- 25th February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
	likely that the Civic Quarter and Farnborough Town Centre will require less SANG than allowed for by the standard methodology when final mixes are determined. However it is likely other windfall schemes may come forward. So this demonstrates that the Southwood Country Park SANG will be fully or substantial allocated and being utilised during the period of the Pipeline construction.	<p>schemes dwellings will not be delivered during the 2018-2023 period i.e. until after the proposed SLP construction period. Those figures are based on a programme of development for which there is already slippage, and so further delays may take place. On the Council's own figures, the SANG would not experience full visitor numbers until after the SLP project has been constructed, meaning that there would be spare capacity within the SANG itself should any displacement occur as the Council suggests – which the Applicant disputes.</p> <p>Notwithstanding this, in terms of other locations people may be displaced to, if any visitors are displaced as a result of the works in Southwood Country Park, they are likely to use the adjacent long established Southwood Woodland SANG and potentially also the new Kennel Lane SANG to be provided in association with the proposed development at Hartland Park (the residential development at Hartland Park will not be fully completed until 2031). The Council maintains that the Southwood Woodland SANG is 'full', but this does not mean additional visitors cannot use it, it means that no additional dwellings can be allocated towards that site as there is no spare SANG capacity.</p>
Env Action Point 40	Temporary play space in QEP	This is addressed in the Applicant's response to REP6-087 above.




REP6-089– Rushmoor Borough Council		
Deadline 6 Submission - Response to hearing Action Points arising from the Issue Specific Hearings 24th- 25th February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
Further matters	<p>Noise levels and assessment</p> <p>RBC awaits sight of the explanatory note that their Noise Consultant is to provide to see their further reasoning / justification and hopefully examples of other significant infrastructure projects that have adopted this approach.</p>	<p>The Applicant submitted a further explanation of its position at Deadline 6 in response to ISH5 Action 28 (REP6-074).</p> <p>For the reasons set out in that response, the Applicant considers that a monthly average noise level is a well-established basis for the assessment of construction noise as demonstrated by a number of Nationally Significant Infrastructure Projects where a similar approach has been used as the basis of the construction noise assessment in the associated Environmental Statement. These include:</p> <ul style="list-style-type: none"> • A14 Cambridge to Huntingdon improvement scheme; • A30 Chiverton to Carland Cross; • Network Rail Norton Bridge Area Improvements; • Thames Tideway Tunnel; and • Hinkley Point C Connection Project.
Further matters	<p>Noise Assessment</p> <p>This duplicates the point made in REP6-087.</p>	<p>This is answered in response to REP6-087 above.</p>
Further matters	<p>Noise Barriers</p> <p>This duplicates the point made in REP6-087.</p>	<p>This is answered in response to REP6-087 above.</p>
Further matters	<p>BS5837:2012</p>	<p>The Applicant has committed to comply with BS 5837:2012 and has updated the relevant documents to this effect at Deadline 6, including the SSP for Queen Elizabeth Park (Document Reference 8.57 (3)). The Applicant is confident that it can deliver the project in line with this</p>



REP6-089– Rushmoor Borough Council Deadline 6 Submission - Response to hearing Action Points arising from the Issue Specific Hearings 24th- 25th February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
	<p>RBC welcomes the commitment by the Applicant to comply in full with BS5837:2012 (BS) in relation to works within QEP.</p> <p>Any trench depth greater than 1m would require “shoring” (shuttering) and require severing any bridging roots to achieve this. RBC cannot see how the development is achievable within the RPA of retained trees by trenching.</p>	<p>commitment. The Applicant has responded to the Council’s comments relating to ‘shuttering’ previously. The Applicant believes it to be incorrect and unsupported by any evidence from the Council. It simply is not the case that trenches would have to be shored up by severing roots or ‘grading’ the trench sides.</p> <p>The Applicant believes that Rushmoor BC should have provided some technical expertise to support this statement.</p> <p>The Applicant would again reiterate that it is perfectly feasible to install pipelines through the RPAs of trees using techniques such as air spades, hand digging and vacuum excavation and that for many utility companies this is common practice.</p> <p>The photo below shows how the Applicant can excavate a pipeline trench in an RPA without the use of shuttering, severing tree roots.</p>



REP6-089– Rushmoor Borough Council		
Deadline 6 Submission - Response to hearing Action Points arising from the Issue Specific Hearings 24th- 25th February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
		<p>Photograph 1: Pipeline trench being backfilled following pipe installation below tree roots.</p>  A photograph showing a long, narrow trench dug into the ground. The trench is filled with a dark, granular material, likely gravel or crushed stone, which is being used for backfilling. The trench is situated in a wooded area, with tree roots visible along its length. The ground on either side of the trench is uneven and appears to be a mix of soil and vegetation.



REP6-091 and REP6-092 – Rushmoor Borough Council

REP6-091 and REP6-092 – Rushmoor Borough Council Deadline 6 Submission - 2 Maps of the TPOs within the Order Limits and a list of grid references for the TPOs		
WR Para Ref	Point raised	Applicant response to point raised:
N/A	<p>Missing Tree Preservation Orders</p> <p>Rushmoor Borough Council provided a list of four individual TPOs and two TPO groups that it considers to be missing from the DCO.</p>	<p>The Applicant can confirm that it was aware of the TPOs at the former RAE Playing Fields, and Land at and adjoining Brewers Close (TPO references 92/00186/ORDER and 07/00437/ORDER), and that these trees were not added to Schedule 8 of the draft DCO because there is no requirement to remove or carry out any other works to them.</p> <p>In relation to the TPO trees listed for Queen Elizabeth Park (TPO reference 19/00475/ORDER), the Applicant understands from communications with the Council that this TPO has not been endorsed or served and therefore currently has no legal status or effect. On that basis, there is no TPO in force for these trees, and no need for an addition to be made to Schedule 8 of the draft DCO.</p> <p>As set out in the explanation of changes to the draft DCO at Deadline 7 (Document Reference 8.93), the Applicant has now added a new paragraph (7) to article 42 of the draft DCO, which clarifies that development consent granted by the DCO is to be treated as a specific planning permission for the purposes of regulation 14 of the Town and Country Planning (Tree Preservation)(England) Regulations 2012. The effect of this is to ensure that the exception in regulation 14(1)(a)(vii) of the 2012 Regulations to the carrying out of prohibited activities in respect of TPO trees in regulation 13 of the 2012 Regulations, applies to activities undertaken under article 42 of the draft DCO.</p> <p>Whilst article 43 confers powers to carry out works to specific TPO trees listed in Schedule 8 of the draft DCO, this further wording is necessary to ensure that the Applicant is also able to carry out works to trees which may be designated as TPO trees in future (such as the trees at</p>



REP6-091 and REP6-092 – Rushmoor Borough Council		
Deadline 6 Submission - 2 Maps of the TPOs within the Order Limits and a list of grid references for the TPOs		
WR Para Ref	Point raised	Applicant response to point raised:
		<p>Queen Elizabeth Park), without being subject to an obligation to obtain the consent of the local planning authority under regulation 13 before carrying out those works.</p> <p>Without this additional provision, there is clearly a risk that TPOs could be confirmed in future and, because those trees are not included in Schedule 8 of the draft DCO, the Applicant would have no ability to carry out works to them without first obtaining the consent of the local planning authority. This would undermine the 'one stop shop for consents' principle which the development consent order process was intended to perform.</p> <p>The wording inserted at article 42(7) of the draft DCO at Deadline 7 is preceded in DCOs: see for example article 40(4) of the National Grid (Richborough Connection Project) Development Consent Order 2017.</p>



REP6-093 - Surrey County Council

REP6-093 – Surrey County Council Deadline 6 Submission - Comments on the CoCP and CTMP		
WR Para Ref	Point raised	Applicant response to point raised:
N/A	<p>Code of Construction Practice:</p> <p>2.4.11 - Additional wording to include “without compromising safety, access/egress points should also be designed so that vehicles can swiftly leave the public highway, in order to avoid un-necessary congestion”</p>	<p>The Applicant added text to the CoCP at Deadline 6 (REP6-009) to paragraph 2.4.11 to say <i>‘Access and egress points from public highways will be designed to reduce risks and congestion by providing for the safe and efficient passage of construction traffic.’</i></p>
	<p>Code of Construction Practice:</p> <p>2.5.6 - Rather than specifying these measures only at ‘locations identified in the Noise and Vibration Management Plan’ include text to cover when such measures may be needed if extended working hours have been agreed on Traffic</p>	<p>The Applicant added text to the CoCP at Deadline 6 (REP6-009) to paragraph 2.5.6 to say <i>‘Where works take place outside of normal working hours, under the direction of the highways authorities, additional mitigation may be required. Such measures will be considered in consultation with the highways authority’.</i></p>



REP6-093 – Surrey County Council Deadline 6 Submission - Comments on the CoCP and CTMP		
WR Para Ref	Point raised	Applicant response to point raised:
	Sensitive streets to expedite works likely to cause severe traffic delays. (DCO 14-4-C)	
	<p>Code of Construction Practice:</p> <p>2.8.13 - Wording should be clear that material layer depths will be in accordance with 'Specification for the Reinstatement of Openings in Highways' (SROH) – Section 71 or NRSWA '91, as opposed current wording which could be taken to read existing material layers will be matched, which is incorrect.</p>	<p>The Applicant has amended the text in paragraph 2.8.13 of the CoCP at Deadline 7 (Document Reference 6.4 Appendix 16.1 (5)) to say '<i>Once laid, the trench will be backfilled with imported materials, typically granular fill such as MOT #1. This will be levelled and compacted in layers. If any temporary works are in the trench, these will be removed as the trench is backfilled, as described within the temporary works design. When the backfill is complete, the carriageway will be reinstated in layers of base course and wearing course. Material layer depths will be in accordance with 'Specification for the Reinstatement of Openings in Highways' (SROH) – Section 71 or NRSWA '91. In areas of modular materials these will be lifted carefully and re-used wherever possible</i>'.</p>
	<p>Code of Construction Practice:</p> <p>2.8.15 - Re-word this paragraph to reflect that reinstatement should be in accordance with the Specification for the Reinstatement of Openings</p>	<p>The Applicant has amended the text in paragraph 2.8.15 of the CoCP at Deadline 7 (Document Reference 6.4 Appendix 16.1 (5)) to say: '<i>Reinstatement of the highway will be in accordance with the requirements of the permit schemes, the DCO and in accordance with the Specification for the Reinstatement of Openings in Highways (SROH), unless otherwise directed by the Highway Authority. These bodies have documented the requirements of how-to reinstatement within the carriageway and footway. This includes the depth and material specifications to be used within different categories of carriageway. The local authorities can core-test all reinstatement, and test for material specification used and confirm the depth of material used.</i></p>



REP6-093 – Surrey County Council		
Deadline 6 Submission - Comments on the CoCP and CTMP		
WR Para Ref	Point raised	Applicant response to point raised:
	<p>in Highways (SRoH), unless otherwise directed by the Highway Authority. Content regards coring should confirm that Highways Authorities can re-charge costs for any cores taken which fail to meet the SRoH, and that Esso are then required to complete remedial works to rectify any defects identified – unless instructed not to do so by the Highway Authority.</p>	<p><i>The Highways Authorities can re-charge costs for any cores taken which fail to meet the SRoH, and the Project are then required to complete remedial works to rectify any defects identified – unless instructed not to do so by the Highway Authority’.</i></p>
	<p>Code of Construction Practice:</p> <p>2.8.19 - Re-word this paragraph to reflect that Traffic Management measures must also comply to the 'Safety at Streetworks and Road Works, a Code of Practice'. (Section 65 of NRSWA '91), as well as permit scheme requirements and DCO content.</p>	<p>The Applicant added text to the CoCP at Deadline 6 (REP6-009) to paragraph 2.8.19 to say <i>‘The street works will be undertaken within controlled traffic management at all times, with the large proportion being within traffic lights (two-way and three-way). These will be set up in accordance with the applicable highways authority permit scheme and the 'Safety at Streetworks and Road Works, A Code of Practice' and/or the requirements of the DCO, subject to the terms and conditions of the notice’.</i></p>



REP6-093 – Surrey County Council		
Deadline 6 Submission - Comments on the CoCP and CTMP		
WR Para Ref	Point raised	Applicant response to point raised:
	<p>Code of Construction Practice:</p> <p>2.10.4 - Amend wording to reflect Esso adoption of BS5837:2012 as opposed NJUG guidance</p>	<p>The Applicant updated references from NJUG to the BS5837:2012 throughout all of the certified documentation at Deadline 6. This included the CoCP (REP6-009).</p>
	<p>Code of Construction Practice:</p> <p>2.18.2 - Amend wording in line with additional DCO wording at 14-4-C.</p>	<p>The Applicant updated Section 2.18 (now Section 2.19) of the CoCP at Deadline 6 (REP6-009) regarding working hours to reflect the wording in Requirement 14.</p>



REP6-094 - Surrey County Council

REP6-094 – Surrey County Council Deadline 6 Submission - Responses to Action Points arising from the Hearings week commencing 24 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
N/A	<p>Adequacy of proposed replacement of highway trees</p> <p>SCC considers that the proposal to replace each highway tree lost with one replacement as inadequate.</p> <p>SCC are looking for Capital Asset Value for Amenity Trees (CAVAT) to be applied.</p>	<p>The Applicant does not propose to remove large numbers of highway trees and proposes to treat all tree removal and replacement equally across the application Order Limits.</p> <p>The Applicant will provide reinstatement plans, which will show the replacement planting for all areas of vegetation, regardless of the location, including details such as species, size of replacement, specimen and location, within the Landscape and Ecological Management Plan (LEMP) to be agreed with the relevant planning authority under Requirement 12 of the draft DCO (Document Reference 3.1 (8)).</p> <p>The Applicant has committed in the Outline LEMP (G92) to maintaining new tree planting for up to 5 years (Document Reference 8.50 (3)). Any new replacement trees that fail in the first few years would therefore be replanted by the Applicant and this responsibility would not fall upon the Highway Authority. This commitment to replacement planting of trees and plants which fail within the five-year aftercare period is also secured by Requirement 8(3) of the draft DCO.</p> <p>The five-year maintenance period required under the reinstatement and replanting details which the Applicant has committed to are in excess of those required by other statutory utility undertakers. The good practice measures included in the DCO application and secured in the requirements of the DCO are in excess of the measures available to the local Highway Authority in regard to street works.</p> <p>While the Applicant has agreed to follow the permitting scheme, it does not accept the need to follow the CAVAT requirements, as the measures in the DCO Requirements secure greater levels of reinstatement, replacement planting and a longer ongoing maintenance period.</p>



REP6-095 - Surrey County Council

REP6-095 – Surrey County Council Deadline 6 Submission - Summary of the hearings of week beginning 24 February		
WR Para Ref	Point raised	Applicant response to point raised:
N/A	<p>Protective Provisions</p> <p>Confirmed that SCC are not instructed to negotiate for both LLFAs. Negotiations between the Applicant and SCC on Protective Provisions are continuing.</p>	<p>The Applicant has agreed Protective Provisions with both of the Lead Local Flood Authorities.</p>
	<p>Temporary Stopping up</p> <p>Remove reference within the Article to stopping up. Remaining concern – temporary or permanent? Terminology not clear. Need clarification.</p>	<p>The Applicant notes this concern and that the ExA has proposed a drafting change to replace the term 'stopping up' with 'closure'. The Applicant has made this change in the revised draft DCO submitted at Deadline 7 (Document Reference 3.1 (8)).</p> <p>The Applicant is not seeking powers to permanently close or stop up any streets and this is clear from the drafting of article 13, which only refers to temporary closures, restrictions, diversions and alterations.</p>
	<p>Highway trees</p> <p>Rewording required to take account of SCC's preference on approach to highway trees specifically. There is a CAVAT process.</p>	<p>See above the Applicant's response to Surrey County Council's Responses to Action Points arising from the Hearings week commencing 24 February 2020 (REP6-094) regarding the adequacy of proposed replacement of highway trees.</p>



REP6-096 - Surrey Heath Borough Council

REP6-096– Surrey Heath Borough Council Deadline 6 Submission - Responses to Action Points arising from the Issue Specific Hearing on the draft Development Consent Order (dDCO) on Tuesday 25 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
N/A	<p>Schedule 2 Requirement 3 - Flexibility</p> <p>The Council remains concerned that the use of “may” has the potential to introduce an unintended level of flexibility, and thereby uncertainty, to the proposal. Clarification from the Applicant would be welcome as to why the Applicant believes that “it would lose all meaningful control over how the development is implemented” given commitments it has given as part of the Examination process of how and when the development would be undertaken.</p>	<p>The Applicant notes the concern and has amended Requirement 3 of the draft DCO at Deadline 7 (Document Reference 3.1 (8)) so that it reads as follows:</p> <p>‘The authorised development may <u>must</u> not commence until a written scheme setting out all stages of the authorised development has been submitted to each relevant planning authority.’ ‘The authorised development may <u>must</u> not commence until a written scheme setting out all stages of the authorised development has been submitted to each relevant planning authority.’ ‘The authorised development may <u>must</u> not commence until a written scheme setting out all stages of the authorised development has been submitted to each relevant planning authority.’</p> <p>The concerns raised by the Applicant about loss of control were made not in relation to the use of “may” or “must” in Requirement 3 but in the context of requests by planning authorities that the written scheme should be subject to their prior approval. The Applicant remains of the view that the written scheme under Requirement 3 should be submitted for information only and should not be subject to approval. The written scheme is an administrative document. It does not secure mitigation for the effects of the scheme on the environment and local communities, but simply sets out the stages of the authorised development in respect of which the plans, schemes and strategies secured by other Requirements in Schedule 2 will need to be prepared and approved by planning authorities. The Applicant has however agreed to incorporate the change to Requirement 3 proposed by the Examining Authority (PD-013) in the revised draft DCO submitted at Deadline 7 (Document Reference 3.1 (8)), so that the written scheme submitted under Requirement 3 must now include a phasing plan indicating when each of the stages will be constructed.</p>



REP6-096– Surrey Heath Borough Council Deadline 6 Submission - Responses to Action Points arising from the Issue Specific Hearing on the draft Development Consent Order (dDCO) on Tuesday 25 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
	<p>Schedule 2 Requirement 14 - Start up and shut down activities</p> <p>Council is seeking assurance that these are not activities that would generate noise or vibration</p> <p>Council is seeking clarification of wording 'reasonably necessary' and 'exceptional basis'?</p>	<p>The Applicant has added text into the Code of Construction Practice (CoCP) submitted at Deadline 6 (REP6-009) to outline the activities that can be included within start up and shut down. Paragraph 2.19.5 states that <i>'noise and light emissions will be kept to a minimum and these start-up and shut-down activities would not involve the operation of construction plant and equipment'</i>.</p> <p>In terms of clarifying the wording of the works undertaken on an exceptional basis, the Applicant has added text to the CoCP at Deadline 6 (REP6-009) Paragraph 2.19.2 stating that <i>'exceptions may be required for extended hours (including where necessary working on a Sunday) for activities such as the continuous pulling phase for a major crossing using HDD or where working would be excessively disruptive to normal traffic operation'</i>.</p>
	<p>Schedule 2 Requirement 20 (now 21)</p> <p>Challenge the 3 year period for the holding of information on the project.</p>	<p>The Applicant amended Requirement 21 at Deadline 6 (REP6-003) to make clear that the register must be maintained prior to the submission of any formal applications for approval under Part 2 of Schedule 2. This change was made in response to concerns by interested parties that there was a lack of certainty as to when the register needed to be maintained.</p> <p>As regards the period for which the register must be maintained by the Applicant, three years following completion is, in the Applicant's view, clearly sufficient to ensure that the register will have fulfilled its purpose and that all relevant obligations would have been fulfilled by that time. The three-year period is also well precedented (see most recently Requirement 18 of the A30 Chiverton to Carland Cross Development Consent Order 2020).</p>
	<p>Schedule 2 Requirement 21 (now 24)</p>	<p>The Applicant amended the definition of business days in the draft DCO at Deadline 6 (REP6-003) to include <i>'or days on which general or local elections are held'</i>.</p>



REP6-096– Surrey Heath Borough Council Deadline 6 Submission - Responses to Action Points arising from the Issue Specific Hearing on the draft Development Consent Order (dDCO) on Tuesday 25 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
	Definition of business days to exclude election and referendum days.	
	<p>Schedule 1 and Schedule 2 Requirement 4</p> <p>Compound on Ministry of Defence (MoD) land at Frith Hill. The Council is concerned that Work No 5U, as submitted at Deadline 5, details a new compound at Frith Hill on an area of land that has extensive tree cover with difference in site level. The council is concerned about the absence of a tree survey to BS5837:2012.</p> <p>Furthermore, it is not clear whether the facilities would be provided on a 24 hour basis and clarification of this would be helpful.</p>	<p>The Change Request – Temporary Logistics Hubs (REP3-022) submitted at Deadline 3 proposed the change in use of the brownfield MoD Land at Deepcut Bridge Road from a temporary logistics hub to a construction compound. The compound would be smaller than the logistics hub and used less frequently.</p> <p>The site was originally designated for a logistic hub (Work No. 7C) covering a considerably larger area, and as such, the impacts of removing all the trees from this site were assessed in the environmental impact assessment. The construction compound (Work No. 5U) is the result of negotiations with the MoD to reduce the amount of land to be used, to limit its use only for the works within Frith Hill and thereby reducing the number of trees to be removed. It is not intended for the area to be used 24/7. It will be subject to the same restrictions as all the other construction compounds.</p>



REP6-096– Surrey Heath Borough Council Deadline 6 Submission - Responses to Action Points arising from the Issue Specific Hearing on the draft Development Consent Order (dDCO) on Tuesday 25 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
	<p>Use of noise mitigation for additional locations</p> <p>Esso's approach regarding significant receptors is acceptable. We would expect to see a final clarification on exact locations and mitigation in a final Noise and Vibration Management Plan including details of any planned out of hours work due to relief of congestion. We would expect to see a statement detailing noise mitigation measures if any such night work is planned.</p>	<p>The Applicant notes this response and can confirm that the final Noise and Vibration Management Plan submitted for approval under Requirement 6 of the draft DCO will contain details of noise mitigation measures.</p>
	<p>SANG 2.3</p> <p>The Council would draw attention to its Deadline 5 submission 8.61 Site Specific Plan (SSP) St Catherine's SANG – Revision No 1.1. As such the Council would envisage that a revised SSP</p>	<p>The Applicant updated the Site Specific Plan for St Catherines SANG at Deadline 6 (REP6-059) and no additional comments have been received from the Council.</p>



REP6-096– Surrey Heath Borough Council Deadline 6 Submission - Responses to Action Points arising from the Issue Specific Hearing on the draft Development Consent Order (dDCO) on Tuesday 25 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
	Plan would be submitted to address the matters and concerns made in its submission.	
	<p>Turf Hill</p> <p>The Council is of the opinion that information submitted in respect of potential tree losses are lacking the necessary detail.</p> <p>The Council welcomes confirmation that a survey in full compliance with BS5837:2012 of the trees in Turf Hill, including those along the Guildford Road, is to be undertaken by the Applicant. However, the Council is concerned that this information would be submitted so late in the process.</p> <p>The Council confirmed that it would expect to see a</p>	<p>The Applicant submitted a revised Site Specific Plan (SSP) for Turf Hill (REP6-053) at Deadline 6, which details the tree losses expected at this location.</p> <p>The Applicant has undertaken a tree survey to BS5837:2012, including those trees located along Guildford Road. This information was included in the SSP for Turf Hill submitted at Deadline 6. The tree survey has also been submitted for information at Deadline 7 (Document Reference 8.97).</p> <p>The Council raises a concern about data being provided late in the examination process. The Applicant does not consider that this is a fair criticism. It is not normal to provide a tree survey to this level of detail at the examination stage of an application for development consent.</p> <p>The Applicant would like to point out that an assessment of tree removal was undertaken in the Environment Statement (particularly Chapter 7 (Application Document APP-047) and Chapter 10 (Application Document APP-050)). This assumed the loss (and reinstatement) of all trees within the Order Limits. Good practice measures and mitigation (where required) were also set out within the ES submitted with the application.</p> <p>The Applicant has committed to a 1:1 tree replacement (Commitment G200 in the Outline Landscape and Ecological Management Plan (LEMP)) as discussed at the Issue Specific Hearing on 27 February 2020. The Applicant does not think that it is appropriate for all replacement trees to be standard, root balled and of between 15-20 years age. Larger or older trees are much more difficult to establish and have a much higher risk of failure. Details of the</p>



REP6-096– Surrey Heath Borough Council Deadline 6 Submission - Responses to Action Points arising from the Issue Specific Hearing on the draft Development Consent Order (dDCO) on Tuesday 25 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
	<p>minimum of two replacement trees for each mature tree removed with replacement trees being standard, root balled, of between 15 -20 years of age and broad leaf native species.</p> <p>The Site Specific Plan for Turf Hill makes it clear that replacement planting would take place outside of the 6.3 metre pipeline easement.</p>	<p>appropriate type and age of planting suitable to the specific site conditions, will be included within the final LEMP submitted to the Council for approval.</p> <p>In response to planting taking place outside of the 6.3m easement, the Applicant can confirm that it has updated Commitment G97, also contained within the Outline LEMP, at Deadline 6 (REP6-028) to clarify this point to say, <i>'Where woodland vegetation is lost and trees cannot be replaced in situ due to the restrictions of pipeline easements, native shrub planting approved by Esso would be used as a replacement, in accordance with the vegetation reinstatement plans to be approved by the relevant planning authorities as part of the LEMP. The approved vegetation reinstatement plan will also include replacement tree planting where appropriate'</i>.</p>
	<p>Sand lizards at Turf Hill</p> <p>To date, the Council understands that the Heronscourt and Colville Gardens Residents Associations consider that the information that has been submitted by the applicant does not adequately address their concerns and requests for further information.</p>	<p>The Applicant has responded extensively to questions and concerns raised by the Heronscourt and Colville Gardens Residents Associations regarding route selection at Turf Hill throughout the examination.</p>



REP6-096– Surrey Heath Borough Council Deadline 6 Submission - Responses to Action Points arising from the Issue Specific Hearing on the draft Development Consent Order (dDCO) on Tuesday 25 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
	<p>Response from Natural England to the Right Honourable Michael Gove MP</p> <p>The Council is surprised by the information included in the response to Michael Gove in that it seems inconsistent with the submissions made by Natural England to the Examination and referenced by the applicant as forming part of their approach to the final route selection at Turf Hill. It was our understanding, based on discussions with the applicant and Natural England, that there was a clear preference for the route which sought to minimise the impact on the heathland habitat. The Council considers that this raises significant questions about</p>	<p>The Applicant would like to point out that Natural England has informed that the letter referred to in (REP6-096) was written in August 2019 without input from the relevant Case Officer, who was on leave at the time. The Applicant has also been in ongoing discussions with Natural England and believes that there is now a greater understanding of the trees likely to be impacted.</p> <p>There is no new information provided within this email that would change the route selection in Turf Hill.</p> <p>In paragraph 3, Natural England is pointing out the difference between F1c 'heathland which is known to be of value to Dartford Warblers and sand lizards' and F1a+ which 'passes through woodland, although mature...does not support the features for which the sites have been designated'. This clearly supports the Applicant's case that F1a+ does not affect the designated habitats.</p> <p>Although impacts to protected species could be reduced through mitigation measures such a trapping and relocating, the Applicant considered that the best form of mitigation was avoidance.</p> <p>Natural England states, 'However, we do recognise that the woodland may contain some veteran or other important trees. Natural England is working with the Forestry Commission and the applicant to ensure that these trees are not significantly harmed by the application.' The Applicant can confirm that the arboricultural survey has confirmed that no veteran trees were identified.</p> <p>The Applicant has selected a route which reduces the potential for damage to optimal habitat used by protected species. The Applicant remains confident in its route selection.</p>



REP6-096– Surrey Heath Borough Council Deadline 6 Submission - Responses to Action Points arising from the Issue Specific Hearing on the draft Development Consent Order (dDCO) on Tuesday 25 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
	<p>how the applicant came to the conclusion for the final route selected in this area.</p>	<p>The Applicant has always made clear that Natural England provided information on both route options and did not express a preference (see TH.1.8 in REP2-049 & TH.2.2 in REP4-028). The route selection was undertaken solely by the Applicant based on the evidence and advice available. Further, the route selection was not based upon a single issue, as set out in the Applicant's responses to relevant representations (REP1-003, pages 84 – 88 (inclusive)).</p> <p>The Applicant can confirm that Natural England has expressed support for the overall project through its response on the Habitats Regulations Assessment Report (Application Document APP-130 and APP-131) and as evidenced within the Statement of Common Ground between the two parties (REP1-005).</p>
	<p>Great Crested Newts at Windlemere</p> <p>Issue regarding the ditches between ponds and lack of survey information of these ditches.</p> <p>Will work with the applicant to locate the pipeline away from these ditches.</p>	<p>The ponds at Windlemere Golf Course were surveyed in 2018 and a 'medium' sized metapopulation of great crested newt was identified. It is assumed by the Applicant that great crested newts use the vegetated ditches to move around the wider area and to access the ponds.</p> <p>The Applicant believes the Council's assertion 'that consideration of the GCN population in Windermere only played a small role in deciding the final alignment, given that this was only based on the location of the ponds, did not exclude the potential for severing linkages between ponds and ultimately disregarded the potential importance of the ditch network to the GCN community', is both incorrect and unevidenced.</p> <p>The Applicant has undertaken the appropriate level of surveys for GCN and their habitat and the results are included in the Great Crested Newt Factual Report (Application Document APP-091a) submitted with the Application. The Applicant's approach to the GCN population at Windlemere is contained within the Draft GCN licence (Application Document APP-096 and APP-097) which has been reviewed by the licensing experts at Natural England, who have issued a Letter of No Impediment.</p>



REP6-096– Surrey Heath Borough Council		
Deadline 6 Submission - Responses to Action Points arising from the Issue Specific Hearing on the draft Development Consent Order (dDCO) on Tuesday 25 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
		All the proposed works will be undertaken in accordance with the requirements set out in the legally binding European Protected Species licence which will be approved and issued by Natural England.



REP6-097 - Addleshaw Goddard LLP on behalf of Independent Educational Association Limited (IEAL)

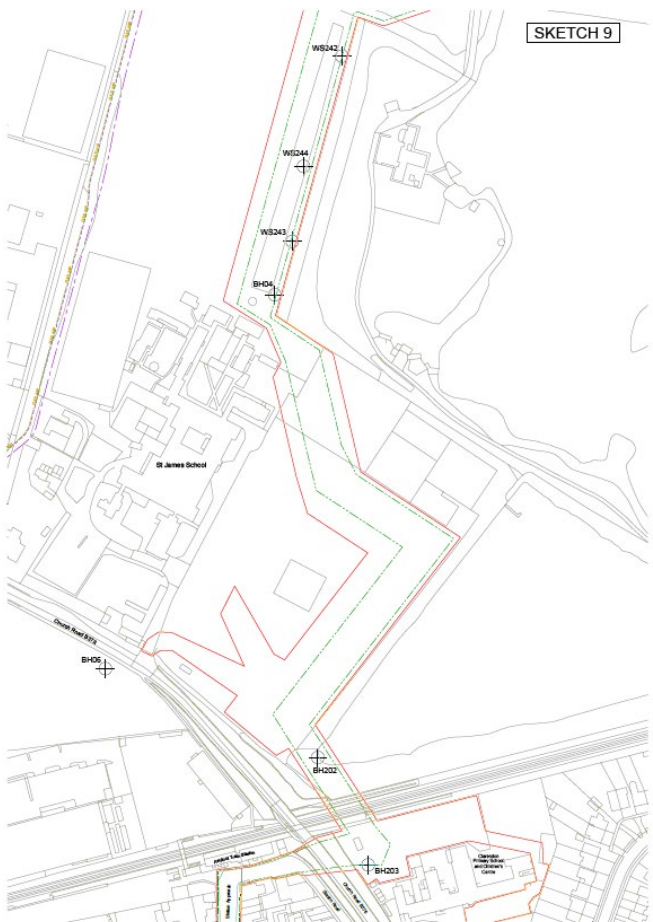
REP6-097 – Addleshaw Goddard LLP on behalf of Independent Educational Association Limited (IEAL)		
Deadline 6 Submission - Comments on responses submitted for Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
4.1	<p>Consideration of high ground water level</p> <p>Whilst Esso acknowledge that high water levels are a concern for the project (although there was no reference to this in SLT's technical note), it is not correct for them to conclude that this has little bearing on route selection.</p>	<p>The 97km length of the replacement route passes through a number of areas which have similar, if not worse, ground conditions and whilst the underlying high water table does pose some difficulties, these are known and can be managed. Hence the Applicant's comment still holds. The geographical areas along the replacement route north/east of the M25 could all be considered to have a high water table due to the underlying geology of sand and gravels. Therefore, the Applicant will need to take account of the potential for a high water table throughout this area.</p>
4.1	<p>Esso have not addressed our comments in paragraphs 4.3.4 and 5.0 that as ground levels along the western boundary of the school are around 1 metre higher than along Esso's preferred route This will add significant cost and complexity to their preferred option compared to Option 1B</p>	<p>The Applicant is aware of the risk of a high water table when the pipeline is laid along the Applicant's preferred route through St James' School. Whilst this does add some complexity to the pipe laying, there are several other locations along the pipeline route where the Applicant anticipates the need to lay the pipeline where there is a high water table, for example due to the seasonal constraint of having to undertake works in winter through the Special Protection Areas (SPAs). As such, the additional complexity would not be unique to St James' School and the Applicant's contractors would employ the appropriate methodology for such ground conditions.</p> <p>The standard practice for laying steel pipeline is to weld it into a long string section at ground level and only once that string is ready to be laid would the trench for that section be excavated. The pipeline string would then be lifted and placed into the trench as one continuous length. The pipe has sufficient flexibility to enable the end of the string to be left above ground ready to</p>



REP6-097 – Addleshaw Goddard LLP on behalf of Independent Educational Association Limited (IEAL)
Deadline 6 Submission - Comments on responses submitted for Deadline 5

WR Para Ref	Point raised	Applicant response to point raised:
		<p>be joined to the next string. Following this method, there would be very little need for any operatives to have to enter the trench, thereby making it feasible to install the pipeline through an area where there is a high water table. It is acknowledged that there would inevitably be a few locations where tie in welds would have to be made within the trench. At these locations, local temporary coffer dams would be created if required to enable the welding to be undertaken in a dry pit. The presence of a high water table is anticipated throughout this area, including the school's proposed alternative route, and the methodology outlined above would not render the Applicant's preferred route unfeasible.</p>
<p>4.3.2</p>	<p>Alignment of option 1B relative to proposed sports hall</p> <p>Esso state there are a number of inaccuracies within this paragraph without identifying what they think these are.</p>	<p>The Applicant has pointed out the significant inaccuracies in the IEAL response at Deadline 5 (REP5-021).</p> <p>In response to 4.1 of the Alan Baxter Report (REP4-082), the project has undertaken a number of boreholes in the areas around the school (BH03 in Thomas Knyvett School to the north, BH06 in the grassed area at Stanwell Road, and BH203 in Clarendon School to the south) to collect the necessary data to better understand the underlying geology and water table. These are identified on Illustration 3 below. The Applicant awaits consent from St James School for access to undertake a further borehole located in the school grounds (BH202).</p>

REP6-097 – Addleshaw Goddard LLP on behalf of Independent Educational Association Limited (IEAL)
Deadline 6 Submission - Comments on responses submitted for Deadline 5

WR Para Ref	Point raised	Applicant response to point raised:
		<p>Illustration 3: Location of boreholes undertaken near St James School (Sketch 9).</p>  <p>SKETCH 9</p>

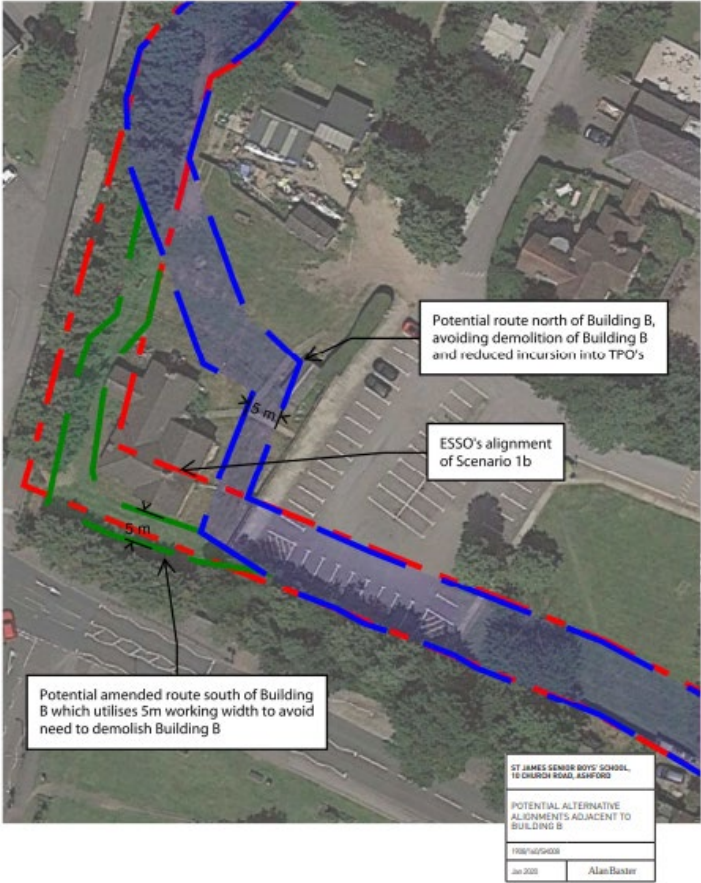


REP6-097 – Addleshaw Goddard LLP on behalf of Independent Educational Association Limited (IEAL)		
Deadline 6 Submission - Comments on responses submitted for Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
4.3.2	<p>Alignment of option 1B relative to proposed sports hall</p> <p>I do not understand why Esso have felt the need to reiterate that it is not possible to construct a fixed structure over the new or existing pipelines as that is not a consequence of Option 1B.</p>	<p>While the school could amend the size or layout of the approved building, the Applicant must have regard to the existing planning permission at the point of designing a route. Permanent buildings, such as a sports hall, cannot be constructed within the pipeline easement. This is particularly relevant as the school's alternative route would conflict with the existing planning permissions.</p>
4.3.2	<p>The safe working guidance set out in the Linewatch document</p> <p>'Special Requirements for Safe Working in Close Proximity to High Pressure Pipelines' simply requires that any excavations within 3m either side of an existing pipeline need to be supervised by a representative of the Pipeline Organisation and undertaken using manual digging unless</p>	<p>Although it is possible to install the pipeline within 3m of the existing pipelines, this does increase safety risk and duration of works meaning the works could not be completed within one school holiday period. It would also restrict available space for any future pipeline maintenance required. Where practicable, it is always preferable to avoid installing the pipelines within 3m of each other.</p> <p>The guidance referred to in the Applicant's Special Requirement for Safe Working document relates to managing excavations within 3m of the pipelines safely. This guidance anticipates the need for a broad range of excavation reasons, such as maintenance to existing underground apparatus including cables and field drains, or indeed the installation of a new service. However, prior to the installation of a new service the routing of that service would have already been designed and agreed to be either crossing the existing pipelines as close to 90 degrees as possible, or installed at least 3m away from the existing pipelines.</p>



REP6-097 – Addleshaw Goddard LLP on behalf of Independent Educational Association Limited (IEAL)		
Deadline 6 Submission - Comments on responses submitted for Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
	another method is specifically authorised.	
4.3.2	Esso make further comments about the potential impact of the proposed sports hall foundations on the available space for the new pipeline.	The Applicant accepts that so long as the position of the sports hall is at least 3m from the pipeline it would have no objection. It is also noted that the precise alignment of the proposed pipeline route in this area has not been designed yet as noted above.
4.3.3	Alignment of Option 1B relative to existing Building B	The Applicant has addressed each of the paragraphs below.
4.3.3	Impact on the existing building B could be avoided either through a reduced construction width and accepting some further incursion into the TPO zone, or by adopting an alignment to the north of the bungalow as Esso have considered for scenario 1A.	<p>In response to 4.3.3, regardless of the route around the bungalow, the alternative route does not perform well because of a number of issues. Routing to the north of the bungalow, through an existing car park, would clearly be less favorable than following the school's boundary. The Applicant balanced the different issues including proximity to existing buildings, existing planning permissions and functionality of the school site when determining the route.</p> <p>The Applicant would require at least the partial demolition of the existing building in the 10m width scenario as there is insufficient room to install adjacent to the existing building. Notwithstanding that, the location and details of the supporting foundations for the building are unknown. However, a reduced width to 5m would be possible subject to the location of the building foundations and any other buried obstruction.</p>

REP6-097 – Addleshaw Goddard LLP on behalf of Independent Educational Association Limited (IEAL)
Deadline 6 Submission - Comments on responses submitted for Deadline 5

WR Para Ref	Point raised	Applicant response to point raised:
		<p>Illustration 4: IEAL Sketch 8 identifying IEAL proposed route adjacent to Building B</p> 



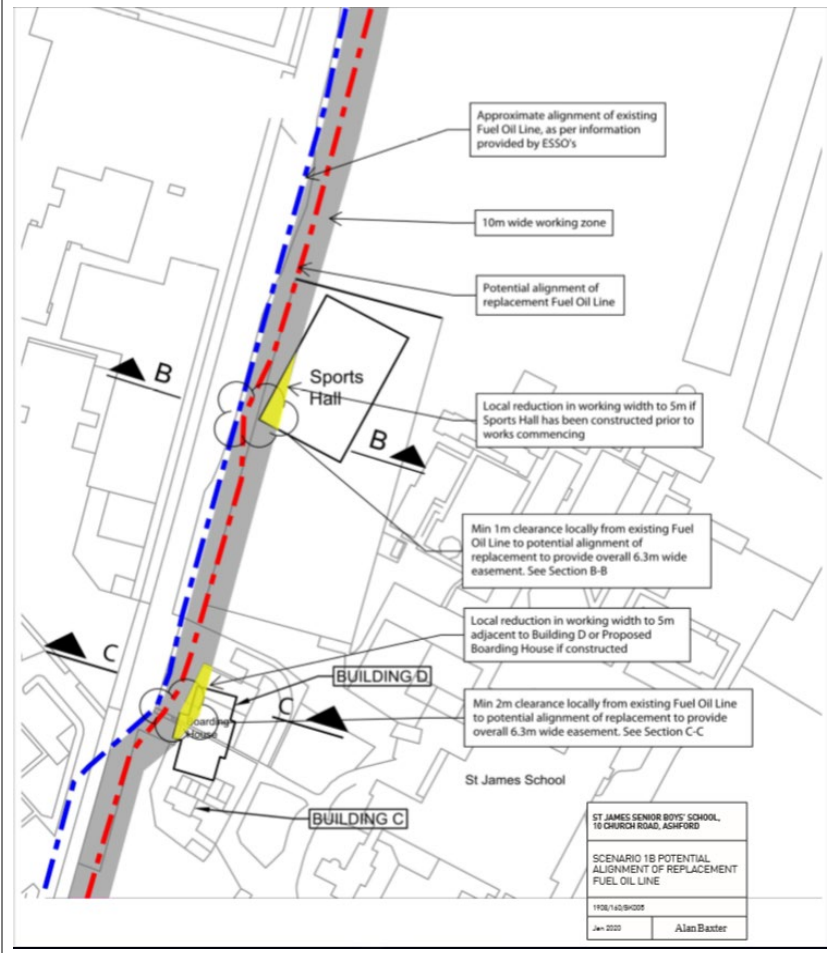
REP6-097 – Addleshaw Goddard LLP on behalf of Independent Educational Association Limited (IEAL)		
Deadline 6 Submission - Comments on responses submitted for Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
4.3.4	The ground levels and potential water table levels.	In response to 4.3.4, refer to the response provided at 4.1 above.
4.3.5	Installing the pipe through TPO areas.	<p>In response to 4.3.5, the Applicant is working in a number of areas with Tree Preservation Orders and within the root protection zones of mature trees through the length of the 97km replacement pipeline. Details are included in the Outline LEMP (Document Reference 8.50 (3)).</p> <p>The replacement pipeline is to be located a minimum of 3m from Building D. However, without details of the foundations of this building or any other buried obstructions adjacent to the building it would not be possible at this stage to locate the pipeline any closer. It should be noted that Building D is a proposed layout at this stage.</p>



REP6-097 – Addleshaw Goddard LLP on behalf of Independent Educational Association Limited (IEAL)
Deadline 6 Submission - Comments on responses submitted for Deadline 5

WR Para Ref	Point raised	Applicant response to point raised:
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Illustration 5: IEAL Sketch identifying Building D





REP6-097 – Addleshaw Goddard LLP on behalf of Independent Educational Association Limited (IEAL)		
Deadline 6 Submission - Comments on responses submitted for Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
4.3.6	Any impacts on Cultural Heritage are only temporary impacts during the construction phase, and therefore of limited significance	The use of the school access for construction traffic would be temporary; it will leave the Listed gatehouse untouched and not impact on its setting. Access would be required for the delivery of pipe, the excavation of the receiving pit for the trenchless crossing of the railway and the machinery required for the excavation of the open cut trench within a narrow working area.



REP6-098 - Addleshaw Goddard LLP on behalf of Independent Educational Association Limited (IEAL)

REP6-098 – Addleshaw Goddard LLP on behalf of Independent Educational Association Limited (IEAL) Deadline 6 Submission - Written summaries of oral submissions put at any Hearings held during the week commencing 17 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
2.4.1	<p>Post Hearing Notes</p> <p>At Deadline 6, the IEAL is still waiting for the Applicant to respond to the draft heads of terms sent to their solicitors on 22 January. The IEAL submits that the Applicant's failure to engage in meaningful negotiations with the IEAL for the voluntary acquisition of property interests supports the IEAL's view that the Applicant has not made genuine efforts to acquire such interests by negotiation</p>	<p>The Applicant does not agree that it has not made genuine efforts to agree matters by negotiation. A formal offer of terms and draft voluntary agreements were first issued to IEAL in January 2019, but despite reasonable efforts by the Applicant's agents to progress matters, the IEAL have declined until very recently to engage in meaningful negotiations either on the documents or the financial terms of the offer, principally because of its objection to the Applicant's route selection.</p> <p>To illustrate that point, the Applicant initially requested permission to conduct ground investigations on 29 April 2019, but that request was not rejected by the IEAL agent in writing until 16 August 2019. An extract from their response to the request is below:</p> <p>'My client says that extensive bore holes were taken as a part of the contamination remediation works the school undertook in the location to the window sampling. The local authority should have this information the Environmental Health department and planning portal. My client is currently not minded to grant access for sampling to land which has been remediated due to contamination, and for a pipeline route they are opposed to.</p> <p>They would be happy to grant access for sampling along their preferred route to the north west boundary of the school to confirm the ground conditions as part of investigations into engineering of a pipeline along that route.'</p> <p>The Applicant can confirm that a detailed response to the IEAL's heads of terms, which were received on 22 January 2020, was issued by its solicitors to IEAL's advisors on the 5 March 2020.</p>



REP6-098 – Addleshaw Goddard LLP on behalf of Independent Educational Association Limited (IEAL) Deadline 6 Submission - Written summaries of oral submissions put at any Hearings held during the week commencing 17 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
2.4.2	<p>Post Hearing Notes</p> <p>The IEAL submits that the Applicant has not demonstrated "that all reasonable alternatives to compulsory acquisition have been explored"</p>	<p>The Applicant issued offers to the IEAL for the terms of a voluntary agreement in January 2019. However, the IEAL has declined to enter into negotiations other than on the basis of its alternative route option, so it has not been possible to progress matters.</p> <p>The Applicant can confirm that respective agents met on the 6 March 2020 to engage in detailed discussions regarding the draft documents issued to IEAL's advisors on the 5 March and the potential terms of voluntary agreements. The Applicant and the IEAL remain in active negotiations over acceptable terms</p>
3.1	<p>The IEAL's proposed amendments to Requirements 5 and 17</p>	<p>The Applicant considers that any changes to these documents (Site Specific Plan (SSP) and CoCP) should be agreed with the local planning authority. The local planning authority will, of course, be in a position to consult with affected parties, in this case the School, to ensure that those parties' concerns and comments are considered as part of any change application process. The Applicant is concerned to avoid multiple or overlapping parties approving changes and believes that approval by the local planning authorities provides appropriate safeguards that landowner and wider community interests will be considered and protected.</p>
3.2	<p>The IEAL asks that Requirements 5 and 17 are amended</p>	<p>For the reasons set out above in response to the School's overarching comments on Requirements 5 and 17, the Applicant is very firmly of the view that it is appropriate that a single body – the local planning authority – should approve any changes to the SSP. In the Applicant's view, approval by the local planning authority ensures that the concerns of any affected landowner (in this case the School) and the interests of the wider community would be accommodated as part of the change application process.</p>



REP6-098 – Addleshaw Goddard LLP on behalf of Independent Educational Association Limited (IEAL) Deadline 6 Submission - Written summaries of oral submissions put at any Hearings held during the week commencing 17 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
4.2	<p>IEAL's comments on the Site Specific Plan in respect of St James School [REP4-054]</p> <p>Confirmation that the stringing out area is not required.</p>	<p>The Applicant has requested access from the IEAL to undertake a ground investigation borehole in the corner of the school grounds adjacent to the railway. This request was made on 29 April 2019, but that request was not rejected by the IEAL agent in writing until 16 August 2019. This borehole is required to inform detailed engineering design at the undertrack crossing. Once those investigations are completed, the Applicant is hopeful to be in a position to confirm with Network Rail that an auger bore crossing of the railway is achievable and that the stringing out area across the playing field is no longer required.</p>
4.2.2	<p>The Order Limits encroach into the boundary of the IEAL's proposed new Assembly Hall. The IEAL notes that a reduced working width of 5m is proposed. The IEAL asks that an express commitment not to exceed the proposed working widths is added to the SSP.</p>	<p>The narrow width working area (NW31) is secured within Section 2.13, Table 2.1 and Annex A of the Code of Construction Practice (CoCP) (Document Reference 6.4 Appendix 16.1 (5)), secured by Requirement 5 of the DCO, which is also illustrated in the St James' School SSP (REP6-061) secured by Requirement 17 of the DCO.</p>
4.2.3	<p>The SSP states, at paragraph 2.1.4 that "Esso intends on constructing the works (Open Cut and trenchless crossing) outside of term-time" and at paragraph 3.2.1, that "It is</p>	<p>Esso intends on constructing the works (Open Cut and trenchless crossing) outside term time, thereby avoiding a conflict between the operation of the school and the construction of the replacement pipeline. The project will consult with St James School management team/Board of Governors to coordinate the construction timetable to reduce impacts. This detail is included within the CoCP, Section 2.13 Table 2.1 (Document Reference 6.4 Appendix 16.1 (5)).</p>



REP6-098 – Addleshaw Goddard LLP on behalf of Independent Educational Association Limited (IEAL) Deadline 6 Submission - Written summaries of oral submissions put at any Hearings held during the week commencing 17 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
	intended for works to take place outside of term time". The IEAL asks that these paragraphs are amended to provide an enforceable obligation that no works will take place during term time and that the entire School site will be reinstated to the same condition that it was before the Applicant started works at the site before a new term starts.	All works will be planned to take place within the normal working hours as defined by the DCO. It is only in exceptional or emergency circumstances that the works will continue outside of the standard working hours.
4.2.4	The pipeline route passes through land identified by the IEAL for an all-weather sports pitch. The Applicant has stated, in conversations with the IEAL, that the sports pitch can be constructed over the pipeline and that the Order (if granted) will not sterilise the sports pitch. However, to date no documented commitment has been provided by the	The Applicant would usually seek to work with schools to plan all weather sports pitches and associated infrastructure such as lighting columns to be at least 3m away from the pipeline. However, where available space does not allow for this, it is permissible to construct an all-weather pitch above the pipeline. The layout and construction detail of an all-weather pitch can be agreed and built into a voluntary land agreement.



REP6-098 – Addleshaw Goddard LLP on behalf of Independent Educational Association Limited (IEAL) Deadline 6 Submission - Written summaries of oral submissions put at any Hearings held during the week commencing 17 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
	Applicant and the IEAL asks that an appropriate commitment is included in the DCO whether in the SSP or otherwise.	
5	IEAL's response to the Applicant's response to the Alan Baxter report on the IEAL's proposed Alternative Route	<p>In paragraphs 5.3 to 5.5 of the IEAL submission, it is effectively said that the Applicant has failed to consider reasonable alternatives to compulsory acquisition, since there is a suitable alternative route, namely the alternative route suggested by IEAL.</p> <p>The Applicant does not agree. The Applicant has set out in Section 7.3 of the Statement of Reasons (Application Document APP-029) how it had regard to all reasonable alternatives to compulsory acquisition. As regards St James' School in particular, the Applicant has considered and responded to the alternative proposal and had explained during this examination, including this submission, why that route cannot be delivered in practice.</p> <p>In short, the Applicant has fulfilled its obligation to have regard to all reasonable alternatives to compulsory acquisition. There is no evidence to support IEAL's position to the contrary.</p>



REP6-100 - Adkin on behalf of Colin Rayner of Rayner Farms

REP6-100 – Adkin on behalf of Colin Rayner of Rayner Farms Deadline 6 Submission - Impacts on Rayners Farms		
WR Para Ref	Point raised	Applicant response to point raised:
1.1	<p>Rayner Farms Concerns</p> <p>Re-instatement and operation of land drainage systems and Impacts to the aftercare plan for the site</p>	<p>The Applicant attended a site meeting with Colin Rayner and his agent Adkins on the 12 March 2020. The matters discussed and agreed are summarised below.</p> <p>The potential impacts and continued operation of existing land drainage systems were discussed, and the Applicant provided detailed explanations and assurances regarding proposed methods of working and the arrangements that will be implemented to ensure that drainage systems continue to function normally during construction and are then satisfactorily reinstated at completion. Mr Rayner has agreed to provide the Applicant with further details and plans of existing as-laid drains. These methods of working are secured in the Voluntary agreement with the landowner as set out in the extract below taken from the relevant clause in the Draft Deed of Grant.</p> <p>Land Drainage</p> <ul style="list-style-type: none"> • So far as is reasonably practicable, the Company will ensure that the minimum of damage and disturbance to land drains and natural drainage is caused in the exercise of the Rights. • The Company will be responsible for reinstating all land drains existing immediately before the Construction Works or Maintenance Works and which have been damaged in the exercise of the Rights and in particular the Company will where the interest of the drainage of the land will best be served lay the Pipeline underneath the land drains which it is necessary to cross and of the existence of which the Company shall have knowledge. All land drains cut or disturbed during the excavation will be strawed and prominently and durably marked at suitable positions adjacent to the trench immediately following their location and their locations will be shown in a drainage log of which a copy will be



REP6-100 – Adkin on behalf of Colin Rayner of Rayner Farms Deadline 6 Submission - Impacts on Rayners Farms		
WR Para Ref	Point raised	Applicant response to point raised:
		<p>furnished to the Grantor and copy to the occupier. The methods to be employed in reinstating the field drainage system will be agreed with the occupier or the Grantor (whichever may be the responsible party) and will include the laying of header drains in advance of the main works where agreed to be necessary or failing agreement where recommended by an expert acceptable to the parties. Where drainage works are required only skilled agricultural drainers will be employed.</p> <p>The Company will ensure that the efficiency of any land drainage systems or natural drainage interfered with in the exercise of the Rights is not impaired. The site is former landfill and therefore a detailed aftercare plan exists which sets out, for example, specific requirements around the application of alluvial deposits required to improve soil conditions on the land. The Applicant has agreed to work very closely with Mr Rayner and his agents to enable the aftercare plan to continue to be implemented as proposed.</p>
1.2	Security and Trespass	<p>The Applicant has provided confirmation to Mr Rayner that site security matters will be reviewed at the time of entry and arrangements will be agreed in line with the Code of Construction Practice (Document Reference 6.4 Appendix 16.1 (5)) Section 2.20.1 and commitment G85:</p> <ul style="list-style-type: none"> Working areas would be appropriately fenced. The choice of fencing would be decided following a risk assessment, relevant to the work location. Specific areas such as compounds may require additional security measures such as lighting, security guards or closed-circuit television. (G85) All fencing along the route would be maintained and checked on a regular basis; entry points via gates would be closed, secured and locked when not in use.



REP6-100 – Adkin on behalf of Colin Rayner of Rayner Farms		
Deadline 6 Submission - Impacts on Rayners Farms		
WR Para Ref	Point raised	Applicant response to point raised:
1.3	Access to severed land and site compounds	<p>The Applicant has explained that suitable crossing points will be provided in agreed locations across the pipeline working width so that vehicle access is maintained at all times to Mr Rayner's adjacent land. This undertaking is secured in the terms of the Voluntary agreement with the landowner and as referenced below.</p> <p>Occupier's access</p> <ul style="list-style-type: none"> • All reasonably necessary means of access will be maintained by the Company in the exercise of the Rights with the construction of such suitably agreed temporary crossings as may be reasonably required by the occupier. Such temporary crossings to be agreed where possible prior to entry on to the Grantor's Property to construct the Pipeline and recorded in the schedule of special conditions as taken under paragraph 3. <p>The Applicant has confirmed that it is not proposed to locate any construction compounds at this location.</p>



REP6-102 - Carter Jonas on behalf of Tweseldown Race Course

REP6-102 – Carter Jonas on behalf of Tweseldown Race Course Deadline 6 Submission - Written summaries of oral submissions at the Compulsory Acquisition Hearing held on 24 February		
WR Para Ref	Point raised	Applicant response to point raised:
1.1	<p>Post Hearing Notes</p> <p>As at D6 no draft compensation agreement had been issued</p>	<p>The Applicant has held a number of meetings with Tweseldown Race Course, initially on the 2 April 2019, to provide a detailed explanation of the scheme, review likely impacts and obtain details of the race course operations, and again on the 6 November 2019 with their agent to consider construction programme, operational concerns and compensation matters. A further site meeting with Tweseldown and their agent was held on the 5 March 2020 during a British Eventing event to fully understand potential construction impacts.</p> <p>Following that meeting the Applicant issued detailed draft terms for a voluntary agreement to Tweseldown's agent on the 13 March 2020 and is in ongoing discussions to finalise acceptable terms.</p>
1.2	<p>Concerns over events and construction dates</p>	<p>The Applicant formally confirmed to Tweseldown's agent on the 11 March 2020 that the three British Eventing events scheduled to take place prior to October 2021 can go ahead as planned. At present the Applicant cannot provide any assurance that the fourth event in mid-October 2021 can proceed but will remain in discussion with Tweseldown to provide updates to the detailed construction programme as that is developed.</p>



REP6-105 - Heronscourt and Colville Gardens Residents Associations

REP6-105 – Heronscourt and Colville Gardens Residents Associations Deadline 6 Submission - Comments on responses submitted for Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
N/A	<p>Identification of relevant organisations and bodies</p> <p>The Applicant did not include HCRA and CGRA within the organisations identified to consult and both RAs, and individual residents of HC and CG, did not receive any documents or e-mails from the Applicant after September 2018.</p>	<p>The Applicant has addressed these points in Appendix 4.7 of the Consultation Report (Application Document APP-035).</p> <p>The Applicant would highlight that writing directly to community groups was not the single method of promoting the statutory consultation to the community and several other methods, outlined below, were used:</p> <ul style="list-style-type: none"> • newspaper adverts, including within national press; • media coverage; • updates to the project website; • an e-newsletter; • information deposited at accessible community locations; and • letters to local councillors and authorities to help the project raise awareness within the community. <p>Furthermore, the Residents' Associations have stated they were aware of the statutory consultation in a previous submission (REP2-123). This submission states: <i>'From an early stage Esso planned carefully for the initial consultation and the documentation and process were well understood. The first stage consultation in late Summer 2018 was open and inclusive. Preparation for the second consultation stage in October 2018 was comprehensive and was conducted in an open manner. Further input was sought after this stage and several residents of Heronscourt and Colville Gardens submitted comments verbally and in writing.'</i></p>



REP6-105 – Heronscourt and Colville Gardens Residents Associations		
Deadline 6 Submission - Comments on responses submitted for Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
Page 1	<p>Change of route</p> <p>HCRA and CGRA accept that there were no communications stating that F1c was preferred, but assert that a clear impression was given that the pipeline would follow the line of the two existing pipelines.</p>	<p>The Applicant has addressed these points at Deadline 2 (REP2-049).</p> <p>The Applicant has clearly stated in all materials produced to date, that three route options were being considered in the Turf Hill area. These were consulted upon. The Applicant was clear that route selection would be based on the guiding principles, which again was clearly stated in the consultation materials. While one principle is to stay near existing infrastructure, which requires being near the existing lines, it is not the only guiding principle and this is clear in all consultation materials and materials used at public events. The Applicant is confident staff at events would have been clear with visitors that three options were subject to consultation and that the Applicant had not pre-determined the final selection.</p>
Page 1 and 2	<p>Absence of communications</p> <p>In REP4-080, the Applicant asserts that everyone received documents AS-012, APP-038 and AS-013. Assertion that residents of HC and CG were not on the circulation list and these were never received by the residents.</p>	<p>The Applicant holds mailing lists used for the consultation and there is no evidence to suggest that these were not delivered by Royal Mail. The Applicant would again make the point that direct mail leaflets were not the only promotional activity used to raise awareness of the statutory consultation with local communities, and that the Final Route mailing was not required under the Planning Act 2008, but was a voluntary communication activity before the Applicant submitted its application for development consent.</p>
Page 2	<p>The Applicants' policy and the location of HC and CG</p> <p>The Applicant's policy is to inform every household</p>	<p>As outlined in (REP5-021), the approach to defining the mailing area for all the direct mail leaflets was agreed through the consultation on the Statement of Community Consultation (SoCC) with Surrey Heath Borough Council as the local authority (Application Document APP-035 Appendix 4.8). The SoCC outlines how properties within 50m were sent direct mail leaflets and,</p>



REP6-105 – Heronscourt and Colville Gardens Residents Associations		
Deadline 6 Submission - Comments on responses submitted for Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
	within 50 metres of the pipeline route of the route selection. Heronscourt and Colville Gardens are physically within 50 metres of F1a+.	as stated above, those residents within 50m of the route were sent a copy of the Final Route leaflet.
Page 2	<p>The residents' reaction</p> <p>The reaction of the residents of HC and CG and many users of Turf Hill over a period of 10 months shows that they were not consulted.</p>	<p>The Applicant's application for development consent was accepted for Examination following confirmation by the Planning Inspectorate that the consultation complied with the requirements of the Planning Act 2008 and was adequate.</p> <p>In Surrey Heath Borough Council's response to the Planning Inspectorate, it stated that, 'We have reviewed the Esso Petroleum Company Limited's Consultation Report and is our view that the application for an Order Granting Development Consent complies with the duty to consult (section 42 of the Planning Act 2008), the duty to consult the local community (Section 47 of the Planning Act 2008) and the duty to publicise (Section 48 of the Planning Act 2008).</p> <p>'Esso Petroleum Company Limited prepared a Statement of Community Consultation and a Commitment to Community Consultation setting out their proposal for consulting residents within the vicinity of the replacement pipeline. They sought our views on the statement in July 2018 and we consider that they had regard to the response that we provided. As a result of our response we thought that our residents would be well involved and consulted during the pre-application stage. Esso Petroleum Company Limited's Statement was well publicised on their website and in local newspapers. We consider that they have carried out their consultations in accordance with the proposals set out in the statement.' (AoC-020)</p> <p>While the Applicant understands that not everyone agrees with the route selection at Turf Hill and other locations along the route, it remains confident that residents were properly consulted on the proposals, and had every opportunity to engage in the pre-application process, and this</p>



REP6-105 – Heronscourt and Colville Gardens Residents Associations
Deadline 6 Submission - Comments on responses submitted for Deadline 5

WR Para Ref	Point raised	Applicant response to point raised:
		is supported by Surrey Heath Borough Council's comments and by the Planning Inspectorate's decision to accept the application for examination.



REP6-106 - Heronscourt and Colville Gardens Residents Associations

REP6-106 – Heronscourt and Colville Gardens Residents Associations Deadline 6 Submission - Comments on responses submitted for Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
Cover email	<p>Natural England letter</p> <p>Statement that Natural England advised Michael Gove that "...it is our advice that either route would be deliverable with the right package of avoidance and mitigation..."</p> <p>Copy of the text of the letter from Natural England included at Appendix 3 of this Deadline 6 submission.</p>	<p>The Applicant would like to point out that Natural England has informed that the letter referred to in REP6-096 was written in August 2019 without input from the relevant Case Officer, who was on leave at the time. The Applicant has also been in ongoing discussions with Natural England and believes that there is now a greater understanding of the trees likely to be impacted.</p> <p>There is no new information provided within this email that would change the route selection in Turf Hill.</p> <p>In paragraph 3, Natural England is pointing out the difference between F1c 'heathland which is known to be of value to Dartford Warblers and sand lizards' and F1a+ which 'passes through woodland, although mature... does not support the features for which the sites have been designated'. This clearly supports the Applicant's case that F1a+ does not affect the designated habitats.</p> <p>Although impacts on protected species could be reduced through mitigation measures such as trapping and relocating, the Applicant considers that the best form of mitigation is avoidance.</p> <p>Natural England states, 'However, we do recognise that the woodland may contain some veteran or other important trees. Natural England is working with the Forestry Commission and the applicant to ensure that these trees are not significantly harmed by the application.' The Applicant would note that the arboricultural survey has confirmed that there are no veteran trees identified.</p> <p>The Applicant has selected a route which reduced the potential damage to optimal habitat used by protected species. The Applicant remains confident in its route selection.</p> <p>The Applicant has always made clear that Natural England provided information on both routes and did not express a preference (see TH.1.8 in REP2-049 & TH.2.2 in REP4-028). The route</p>

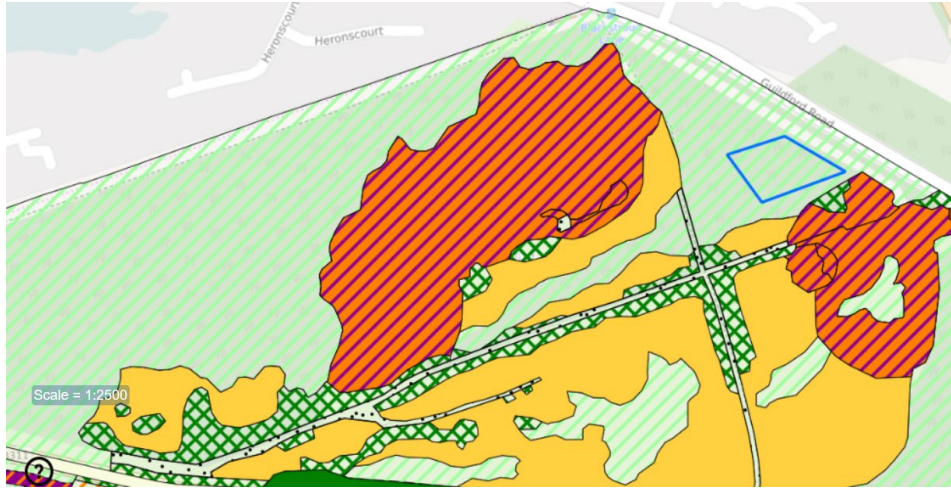


REP6-106 – Heronscourt and Colville Gardens Residents Associations		
Deadline 6 Submission - Comments on responses submitted for Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
		<p>selection was undertaken solely by the Applicant based on the evidence available. Further, the route selection was not based upon a single issue, as set out in the Applicant's responses to relevant representations (REP1-003, pages 84 – 88 (inclusive)).</p> <p>The Applicant can confirm that Natural England has expressed support for the overall project through its response on the Habitats Regulations Assessment Report (Application Document APP-130 and APP-131) and as evidenced within the Statement of Common Ground between the two parties (REP1-005).</p>
Cover email	<p>Requests for information</p> <p>Request for a full tree survey to the necessary British Standards to quantify tree loss accurately.</p> <p>Request for a survey of the Affinity Water pipeline.</p>	<p>A full tree survey to BS 5837 has been undertaken and the results relating to the removal of trees is contained within the Turf Hill Site Specific Plan submitted at Deadline 6 (REP6-053).</p> <p>The full tree survey has been submitted at Deadline 7 (Document Reference 8.97).</p> <p>The Applicant can confirm that utility data was originally obtained from Landmark in March 2018, which included the location of the Affinity Water main, and this information was used by the Applicant to inform the route through this location.</p> <p>Affinity Water will be undertaking an intrusive survey to confirm the location of its main, to ensure that this is line with the data received by the Applicant.</p>
Cover email	<p>Anticipated impact of the court ruling</p> <p>Question: if the project has not taken climate change into consideration, will the architects of the recent court case be able to mount a</p>	<p>The Applicant notes the decision in the Court of Appeal that is referred to. The Applicant assumes that the Examining Authority and Secretary of State will take account of all applicable UK law and Government guidance in determining this application.</p>



REP6-106 – Heronscourt and Colville Gardens Residents Associations Deadline 6 Submission - Comments on responses submitted for Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
	similar action against the Applicant/Government?	
Page 3	<p>Alternative route proposal</p> <p>Assertion that there seems to be no reason why the alternative route should not be a viable option.</p>	<p>The Residents' Associations state they have '<i>provided evidence that there is no suitable habitat for sand lizards or their presence, in the close proximity of F1b/c</i>'. The Applicant would like to highlight that this is incorrect; not only has no such evidence been provided but the area has been surveyed by experienced and qualified ecologists and a nationally recognised sand lizard expert and these confirmed that the area of route sub-option F1c consists almost entirely of suitable habitat, intersected by some well used paths. This evidence has been provided into the Examination (REP2-049 and REP4-028).</p> <p>The Residents' Associations state 'it is obvious to all parties that F1a+ routes through as much, if not more, of the 'boggy area' of the Park as does F1c. It seems also that from the plans that are available, the Compound is sited precisely in that same area.' The Applicant would like to highlight that this is incorrect. The Applicant has mapped all of the vegetation and habitat types at Turf Hill and can confirm that the compound area lies entirely outside of the wet heath and was selected in consultation with Surrey Heath Borough Council, Surrey Wildlife Trust and Natural England, as its higher topography means it is not suitable for the wet heath.</p> <p>The compound area is shown in blue on the plan below and the wet heath is shown as an orange and purple hatch. The green hatches are woodland/scrub and the yellow area is dry heath.</p>

REP6-106 – Heronscourt and Colville Gardens Residents Associations
 Deadline 6 Submission - Comments on responses submitted for Deadline 5

WR Para Ref	Point raised	Applicant response to point raised:
		<p>Illustration 6: Location of Compound Area at Turf Hill</p>  <p>The map shows a residential area with a large red-hatched compound area. Surrounding areas are color-coded for flood risk: yellow for surface water flood risk and green for fluvial flood risk. A scale of 1:2500 is indicated in the bottom left corner. Labels for 'Heronscourt' and 'Colville Gardens' are visible at the top of the map.</p>
<p>Page 4</p>	<p>Flood risk</p> <p>Attached maps at Appendix 1 and 2 show that F1a, particularly adjacent to Colville Gardens which sits immediately below the highest point of Turf Hill, is a high risk area for groundwater flooding.</p> <p>The Applicant has not responded to the linked</p>	<p>The Applicant notes that Appendix 1 contains the flood outlines for fluvial flood risk and Appendix 2 contains the flood outlines for surface water flood risk. Neither plan show flood risk relating to groundwater flooding.</p> <p>The pond is in an area of surface water flood risk. As the pipeline would be buried underground with no additional areas of hardstanding, it is considered that the potential for the project to impact on surface water flooding during construction and operation would be low, see Section 8.5 in the Flood Risk Assessment (Application Document APP-134).</p> <p>As noted in Section 9.3 of the Response to Relevant Representations at Deadline 1 (REP1-003), the Applicant recognises the wider value that trees provide to the environment and this is why the Applicant has narrowed the working area at Turf Hill to a maximum of 15 metres. Section 3.2 of the Site Specific Plan for Turf Hill (REP6-053) outlines the specific trees that would be</p>



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WR Para Ref	Point raised	Applicant response to point raised:
	impacts of tree removal on noise, dust and pollution.	<p>removed and Section 3.6 outlines the reinstatement proposals, where individual trees would be replaced. The majority of the trees in the woodland would remain and the Applicant does not consider there to be a significant effect due to tree removal on noise, dust and pollution.</p> <p>The Residents' Associations state that the SHBC Management Plan for Turf Hill requires that a 30/70m border of trees must be left around its perimeter for reasons of noise, dust and pollution.</p> <p>The Applicant can confirm that the SHBC Management Plan actually states on page 9:</p> <p>'Ideally the heathland areas should have a maximum of 15% tree cover. Where appropriate a tree belt between 10 and 30 metres wide will be retained around the perimeter of the site to shield it from nearby roads and housing' (Surrey Heath Borough Council (2015)).</p> <p>The Applicant would like to point out that, given the current extent of woodland around the perimeter of Turf Hill, on completion of the pipeline installation, there will still be a tree belt of between 10 and 30 metres.</p>
Page 5	<p>Trees</p> <p>The 17 trees that the Applicant refers to are in excess of 250mm stem diameter. There are also concerns about working within root zones.</p>	<p>The Applicant can confirm that it has undertaken a tree survey at Turf Hill which has mapped all trees greater than 75mm. This information was included on the Site Specific Plan (SSP) for Turf Hill (REP6-053) at Deadline 6.</p> <p>The SSP shows the trees that the contractor would need to remove and how these would be reinstated. Remaining trees would be retained using the commitments and methods set out within Sections 2.10 and 2.11 in the Code of Construction Practice (Document Reference 6.4 Appendix 16.1 (5)) and the commitments set out in the Outline Landscape and Ecological Management Plan (Document Reference 8.50 (3)).</p>
Page 5	<p>Affinity Water main</p> <p>Assertion that the RAs have been in regular contact with</p>	<p>The record of discussions between Affinity Water and the Applicant is contained within the Statement of Common Ground (REP2-014). The Applicant can confirm that utility data was</p>



REP6-106 – Heronscourt and Colville Gardens Residents Associations		
Deadline 6 Submission - Comments on responses submitted for Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
	Affinity Water from April 2019 onwards and have been repeatedly advised by Affinity Water that they were yet to be contacted by the Applicant.	originally obtain from Landmark in March 2018, which included the location of the Affinity Water main, and this information was used by the Applicant to design the route through this location. Affinity Water will be undertaking an intrusive survey to confirm the location of its main, to ensure that this is in line with the data received by the Applicant.
Page 6	<p>Arboricultural survey</p> <p>Assertion that the Applicant's justification for not surveying the Guildford Road section because it was not raised by residents is not adequate.</p> <p>Request for the number of trees in total that would be removed from F1a+.</p>	<p>The Applicant has reviewed the minutes of the meeting arranged by representatives of the local residents, parish, borough and county councils. The conversation was dominated by two areas of concern: one was the overall route selection and the other was impacts to the large trees at the end of residents' gardens. There was no mention of the specific concerns about the trees along Guildford Road. The initial tree survey was undertaken in response to these concerns. The survey included the western section of F1a+ as this also borders the gardens of residential properties.</p> <p>The Applicant's approach to tree surveys on this project was set out within Appendix 3 of the Scoping Report (AS-019).</p> <p>The surveys referred to in Heronscourt and Colville Gardens Residents Associations Deadline 6 submission (REP6-106) relate to the more detailed survey that has been undertaken as part of the route alignment to inform the Site Specific Plan. As noted above, the Applicant has now undertaken a detailed tree survey at Turf Hill which has mapped all trees greater than 75mm diameter. This information was included on the Site Specific Plan for Turf Hill (REP6-053) at Deadline 6. This shows the number of trees that would be removed and that number includes tree removal for the compound area.</p>
Page 7	Arboricultural report	The Applicant can confirm that the method for surveying the trees in the original survey was compliant with the BS5837.



REP6-106 – Heronscourt and Colville Gardens Residents Associations		
Deadline 6 Submission - Comments on responses submitted for Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
	The tree survey conducted is not in accordance with the recommendations contained within BS 5837:2012.	As previously confirmed, the extent of the trees surveyed was those with a diameter of 250mm and above.
Page 7	<p>Arboricultural report</p> <p>Suggestion that the landscape contribution of the trees should be higher in the arboricultural survey.</p>	<p>The comments are a misinterpretation of the standards and an attempt to apply them as an assessment of landscape value and not an arboricultural assessment.</p> <p>As stated in the Applicant's response at Deadline 6 (REP6-075), the tree survey at Turf Hill was undertaken by qualified and experienced arboricultural experts, following the recommendations of British Standard (BS) 5837:2012. The purpose of BS 5837 is to provide an assessment of trees for the purpose of planning. When surveying trees to BS5837:2012, the first part of the categorisation relates to the tree's quality (A, B, C or U). The sub-category relates to separate attributes but do not add value to the original categorisation. Sub-category 1 is for arboricultural merit, sub-category 2 refers to the trees' landscape value, sub-category 3 relates to any historic or cultural attributes.</p> <p>The vast majority of trees at Turf Hill were deemed to be of moderate quality (B) with landscape value (2). The main reason for them not being A category is because they are woodland trees and therefore do not have perfect form or shape. However, they were, on the whole, moderate quality trees and their value as a landscape feature was apparent and therefore a B2 classification was appropriate.</p> <p>The fact they are classified as B and not A is a matter that has no relevance in the context of this project, as the Applicant has classed both A and B quality trees to be constraints and has sought to avoid these where practicable. When assessing woodland trees as individuals there will be smaller trees within the wood that do not contribute to the landscape. The purpose of the survey is to assess individual tree quality to identify the route that will have least impact upon the woodland as a whole or upon trees of greater significance.</p>



REP6-106 – Heronscourt and Colville Gardens Residents Associations		
Deadline 6 Submission - Comments on responses submitted for Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
Page 8	<p>Arboricultural report</p> <p>Assertion that it is difficult to know exactly where the intended pipeline centreline is located as the plan provided does not follow the recommendations embodied within BS 5837:2012.</p>	<p>The pipeline centreline is shown on the plans provided in the Turf Hill Site Specific Plan both at Deadline 5 and Deadline 6 (REP6-053).</p> <p>The topography of the Turf Hill site had been recorded separately by the Applicant and therefore was not part of the tree survey.</p>
Page 8	<p>Arboricultural report</p> <p>Questions about the stem size of trees included in the original survey.</p>	<p>The Applicant can confirm that the original tree survey recorded trees over 250mm in response to the concerns raised by local representatives about possible impacts to the large trees adjacent to their gardens.</p>
Page 9	<p>Arboricultural report</p> <p>BS 5837: 2012 describes the RPA as “the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree’s viability, and where the protection of the roots and soil structure is treated as a priority.”</p> <p>Assertion that it is scientific fact that the root area of a</p>	<p>The Applicant would dispute the non-evidenced statement ‘that it is scientific fact that the root area of a tree in most cases extends considerably beyond the calculated RPA’.</p> <p>The Applicant’s experience of installing pipelines shows that the roots can equally occupy a smaller area than the RPA. The variance in root growth is influenced by many factors such as local topography including ditches, banks, compact surfaces such as well used paths etc. This is acknowledged in Section 4.6.2 of the BS5837.</p> <p>The Applicant does however recognise that the calculation of the RPA is a mathematical process prescribed by BS5837 and may not resemble the real root pattern of any particular tree.</p>



REP6-106 – Heronscourt and Colville Gardens Residents Associations		
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WR Para Ref	Point raised	Applicant response to point raised:
	tree in most cases extends considerably beyond the calculated RPA.	
Page 9	<p>Arboricultural report</p> <p>Questions about the size of the pipe and the thickness and the impact that this would have on trees.</p>	<p>The Applicant can confirm that the trees that require removal are shown in the Site Specific Plan submitted at Deadline 6 (REP6-053) and that the full Arboricultural Survey is submitted at Deadline 7 (Document Reference 8.97).</p> <p>The Applicant can advise that the replacement pipe will have a nominal external diameter of 330 millimetres as set out in the draft DCO (Document Reference 3.1 (8)).</p>
Page 9	<p>Arboricultural report</p> <p>Assertion that the Applicant is trying to obscure the issues and questions the survey quality.</p>	<p>This statement appears to repeat a personal opinion rather than an evidenced professional review.</p>
Page 10	<p>Conclusion</p> <p>Question: if the project has not taken climate change into consideration, will the architects of the recent court case be able to mount a similar action against the Applicant/Government?</p>	<p>The Applicant notes the decision in the Court of Appeal that is referred to. The Applicant assumes that the Examining Authority and Secretary of State will take account of all applicable UK law and Government guidance in determining this application.</p>

Southampton to London Pipeline Project
Applicant's Comments on Responses submitted for Deadline 6



REP6-106 – Heronscourt and Colville Gardens Residents Associations
Deadline 6 Submission - Comments on responses submitted for Deadline 5

WR Para Ref	Point raised	Applicant response to point raised:
Appendix 3	Email from Toby Bell, Parliamentary Assistant to Michael Gove, 2nd March 2020 to HCRA and SHBC	See response to REP6-106 Cover Email above.



REP6-107 - Heronscourt and Colville Gardens Residents Associations

REP6-107 – Heronscourt and Colville Gardens Residents Associations Deadline 6 Submission - Comments on responses submitted for Deadline 5 - Additional Information		
WR Para Ref	Point raised	Applicant response to point raised:
Page 1	<p>Natural England’s letter to Mr Gove</p> <p>Assertion that Natural England has now clarified its position by saying “It is now our advice that either route would be deliverable with the right package of avoidance and mitigation” in its letter to Michael Gove MP.</p> <p>The Applicant has maintained that one of its major considerations for changing to F1a+ was Natural England's support of this route.</p>	<p>The Applicant is disappointed at the RAs misquoting of the Natural England position. By inserting the word ‘now’ into the quote, it implies that Natural England has changed its position in relation to their advice.</p> <p>The correct text states, ‘it is our advice that either route would be deliverable with the right package of avoidance and mitigation - Jacobs will have taken our advice and used it to inform their Habitats Regulations Assessment which will have helped them to decide which route to take, along with other factors’.</p> <p>See the response to REP6-106 Cover Email above for further details.</p>
Page 1	<p>The anticipated result of the new tree survey</p> <p>There has been an escalation of the number of trees affected from the 17 trees that were to be</p>	<p>The Site Specific Plan (SSP) submitted at Deadline 4 (REP4-050) advised that 17 of the trees with a diameter over 250mm would be removed. The SSP submitted at Deadline 6 (REP6-053) advised that 60 of the surveyed trees would require removal.</p> <p>The change in numbers is a result of the recent detailed arboricultural survey, which includes a larger survey area than previously quoted (including Guildford Road and the compound area)</p>



REP6-107 – Heronscourt and Colville Gardens Residents Associations		
Deadline 6 Submission - Comments on responses submitted for Deadline 5 - Additional Information		
WR Para Ref	Point raised	Applicant response to point raised:
	removed to 57. The RAs have still not seen the results and are not convinced this is the correct number.	and also includes trees over 75mm in diameter. The arboricultural survey showed which trees within residents' gardens were surveyed. The tree survey and schedule have been submitted separately at Deadline 7 (Document Reference 8.97).
Page 2	The ability to use an open cut trench method for laying the pipeline Assertion that experts in pipe laying have stated that using open cut trench techniques may not be possible.	The Residents' Associations have provided no evidence to support the statement 'we understand that experts in pipe laying have stated that this may not be possible.' The Applicant can confirm that installing pipes using open cut method close to trees using equipment such as air spades, hand digging and vacuum excavation is an everyday activity that is practiced regularly by utility companies and is confident that it can deliver the project as set out within the draft DCO (Document Reference 3.1 (8)).
Page 2	Water main New concerns about the Affinity Water main and sharing of easements for the water and hydrocarbon.	Overlapping easements are quite common with utility apparatus. An easement provides for suitable space so that the apparatus can be adequately operated and maintained. When work is required within the overlapping easement area, the respective companies would agree between them a safe method of working. The ability to safely operate and maintain their respective apparatus is not compromised. Additionally, Affinity Water will have the benefit of Protective Provisions that protect its apparatus. The Applicant responded to this point in the Comments on Responses submitted for Deadline 5 (please see page 105, REP6-075).
Page 2	Concerns that the Applicant will not be able to replant replacement saplings along a thin strip	It is correct that the Applicant would not replant trees within the pipeline easement. However, the Applicant is confident that there is sufficient space elsewhere in the Order Limits to undertake reinstatement planting. The proposed reinstatement planting is shown in the Site Specific Plan submitted at Deadline 6 (REP6-053).



REP6-107 – Heronscourt and Colville Gardens Residents Associations		
Deadline 6 Submission - Comments on responses submitted for Deadline 5 - Additional Information		
WR Para Ref	Point raised	Applicant response to point raised:
	of the Order Limits (easement).	
Page 2	<p>Paris Agreement on emissions</p> <p>Assertion that the Inspectorate will need to seek assurances from the Applicant as a result of CO2 emissions from a larger and more efficient pipeline.</p>	<p>The Applicant notes the decision in the Court of Appeal that is referred to. The Applicant assumes that the Examining Authority and Secretary of State will take account of all applicable UK law and Government guidance in determining this application.</p>



REP6-108 - Heronscourt and Colville Gardens Residents Associations

REP6-108 – Heronscourt and Colville Gardens Residents Associations Deadline 6 Submission - Comments on responses submitted for Deadline 5 - Response to the Applicants Site Specific Plan for Turfhill Park APP 8.58 REP4-050		
WR Para Ref	Point raised	Applicant response to point raised:
N/A	<p>Vegetation removal</p> <p>The 17 trees referred to are those in only two sections of F1a+ and in excess of 250mm diameter. It is not known at this stage if the trees affected by the compound will be included.</p>	<p>The Applicant has undertaken a more detailed tree survey at Turf Hill in response to concerns raised by local residents and also to inform the Site Specific Plan (SSP). Following the completion of the BS5837:2012 compliant tree survey, it is anticipated that on the intended pipeline alignment the following trees would require removal as shown on the SSP submitted at Deadline 6 (REP6-053):</p> <ul style="list-style-type: none"> • For the pipeline alignment along all three sides of the route at Turf Hill adjacent to The Folly, Heronscourt, Colville Gardens and Guildford Road – 21 trees to be removed and reinstated. • Construction compound – 21 pine trees to be removed. No mature trees require removal. To be reinstated as heathland habitat. • Pipeline alignment from the compound into Guildford Road. This crosses the younger largely self-seeded belt of silver birch adjacent to the road – 18 trees to be removed and reinstated.
3.5 Para 3.5.3 and 3.5.10	<p>Open cut techniques</p> <p>Statement that the commitment to the BS is welcome.</p>	<p>The Applicant has committed to complying with BS5837 2012 and is confident that it can deliver the project in line with this commitment.</p>
3.5 para 3.5.13	<p>Water main</p>	<p>The Applicant can confirm that utility data was original obtained from Landmark in March 2018 which included the location of the Affinity Water main and this information was used by the</p>



REP6-108 – Heronscourt and Colville Gardens Residents Associations Deadline 6 Submission - Comments on responses submitted for Deadline 5 - Response to the Applicants Site Specific Plan for Turfhill Park APP 8.58 REP4-050		
WR Para Ref	Point raised	Applicant response to point raised:
	Assertion that the route of the Affinity Water main route along F1a has not been identified by the Applicant, so it cannot agree how and where it can lay the pipeline.	<p>Applicant to design the route through this location. The Applicant has been fully aware of this utility through its design period.</p> <p>Affinity Water will be undertaking an intrusive survey to confirm the location of its main, to ensure that this is line with the data received by the Applicant.</p> <p>Overlapping easements are quite common with utility apparatus. An easement provides for suitable space so that the apparatus can be adequately operated and maintained. When work is required within the overlapping easement area, the respective companies would agree between them a safe method of working. The ability to safely operate and maintain their respective apparatus is not compromised.</p> <p>Additionally, Affinity Water will have the benefit of Protective Provisions that protect its apparatus. The Applicant responded to this point in the Comments on Responses submitted for Deadline 5 (please see page 105, REP6-075).</p>
3.6 para 3.6.6	<p>Reinstatement</p> <p>Assertion that, as the Order Limits are narrow, there is very little room to accommodate all of the replacement plantings.</p>	<p>The proposed reinstatement planting is shown in the Site Specific Plan submitted at Deadline 6 (REP6-053).</p>
Page 3	<p>Summary</p> <p>Statement that the SSP was developed before the commitment to BS5837 and without knowledge of the</p>	<p>The Applicant has carefully considered the different constraints when choosing the location of the pipeline.</p> <p>Esso will put in place robust procedures to inform and supervise all those working on the project, including its supply chain of contractors, to make sure the control measures set out in the Landscape and Ecological Management Plan (LEMP) are adopted when undertaking the</p>



REP6-108 – Heronscourt and Colville Gardens Residents Associations
Deadline 6 Submission - Comments on responses submitted for Deadline 5 - Response to the Applicants Site Specific Plan for Turfhill Park APP 8.58 REP4-050

WR Para Ref	Point raised	Applicant response to point raised:
	<p>route of the water main. Concerns that decisions would be left to the Contractor.</p>	<p>construction of the pipeline and ancillary works. The main responsibility for implementing these control measures will fall to Esso's principal contractor. The principal contractor will provide further detail of its plans and proposals as part of the submission of the final LEMP for approval.</p> <p>The following commitments in relation to the Environmental Clerk of Works (ECoW) role are set out within the Code of Construction Practice (Document Reference 6.4 Appendix 16.1 (5)), secured through Requirement 5:</p> <ul style="list-style-type: none"> • G3: 'A qualified and experienced ECoW would be available during the construction phase, to advise, supervise and report on the delivery of the mitigation methods and controls outlined in the CEMP'. • G41 'The ECoW would monitor that the works proceed in accordance with relevant environmental Development Consent Order requirements and adhere to the required mitigation measures. The ECoW would also be involved with any targeted additional mitigation strategies that may be required'. <p>In addition, the Outline Construction Environmental Management Plan (CEMP) (REP6-030) in Table 3.1 states that '<i>the ECoW would be supported as necessary by appropriate specialists</i>'. These would include a suitably qualified and experienced arboriculturalist, the role of which is described in Table 3.1 of the Outline CEMP: '<i>This person would be expected to have the relevant experience to supervise tree works including tree removal, lopping, pruning, and protection of the root protection zones. They would be employed to oversee working methods relating to tree retention, protection and removal</i>'.</p>



REP6-110 - Nick Jarman on behalf of Neighbours and Users of Queen Elizabeth Park

REP6-110 – Nick Jarman on behalf of Neighbours and Users of Queen Elizabeth Park Deadline 6 Submission - Comments on responses submitted for Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
1.1	<p>Working hours</p> <p>Concern about the different commitments regarding working hours and the need for clarity over what constitutes an emergency situation where Sunday working would be required.</p>	<p>Requirement 14(5)(a) of the draft DCO defines an emergency as ‘a situation where, if the relevant action is not taken, there will be adverse health, safety, security or environmental consequences that in the reasonable opinion of the undertaker would outweigh the adverse effects to the public (whether individuals, classes or generally as the case may be) of taking that action’.</p> <p>The Code of Construction Practice - CoCP (REP6-009) and Construction Environmental Management Plan - CEMP (REP6-030) (and associated appendices) were updated at Deadline 6 to reference the specific wording from Requirement 14 for working hours.</p> <p>The Applicant therefore considers that the meaning of the term is suitably clear.</p>
1.2	<p>Code of Construction Practice</p> <p>Methods and processes with regard to woodland within the CoCP were a lot less detailed and comprehensive than the methods for sports pitches and rivers.</p>	<p>The CoCP contains methodologies relating to woodlands and hedgerows and the Applicant has added Section 2.11 to the CoCP submitted at Deadline 6 (REP6-009) to provide more detailed methodologies in relation to working near trees.</p>




REP6-110 – Nick Jarman on behalf of Neighbours and Users of Queen Elizabeth Park		
Deadline 6 Submission - Comments on responses submitted for Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
1.2.2	<p>Outline Noise and Vibration Management Plan</p> <p>Requested Echo Fencing to reduce the noise levels in the gardens around QEP.</p>	<p>Acoustic barriers are proposed at locations where the noise assessment, which is published within Environmental Statement (ES) Appendix 13.3 Noise and Vibration Technical Note Addendum - Revision No. 2.0 (REP4-017), identified potential significant temporary adverse effects. As set out in BS5228-1, the adopted significance criteria relate to noise levels at the external façade of residential buildings. There is no known precedent for the significance of short-term construction noise to be determined based on external levels within private gardens.</p>
1.2.3	<p>QEP Site Specific Plan (Trees)</p> <p>The tree survey was not included in the SSP.</p> <p>The tree survey and accompanying plans did not indicate which of the trees were classified as Veteran or Notable in the Woodland Trust's ATI.</p>	<p>The Applicant submitted an updated Site Specific Plan (SSP) for Queen Elizabeth Park at Deadline 6 (REP6-051), which included the tree survey information and a schedule of the 30 trees that would be removed. The SSP confirms that the Applicant does not intend to remove any veteran trees or any notable trees listed on the Woodland Trust Inventory.</p> <p>As explained by the Applicant at ISH5, the information on veteran trees was included in the tree survey in line with BS5837. Section 4.5.11 of BS5837 states, '<i>The tree survey might identify the presence of veteran trees on the site</i>'.</p> <p>The inclusion of the Woodland Trust's notable trees is not a requirement of BS5837.</p>
1.2.3	<p>QEP Site Specific Plan (Trenching)</p> <p>We are worried that some of these trees - including Notable and Veteran Trees -</p>	<p>Mr Jarman states that, due to the proposals to work within the RPAs of retained trees, '<i>this would indicate that the proposal to trench through the park is not possible.</i>'</p> <p>Mr Jarman has provided no evidence to support this statement. The Applicant can confirm that installing pipes using open cut methods close to trees, which involves the use of equipment such as air spades, hand digging and vacuum excavation, is an everyday activity that is</p>




REP6-110 – Nick Jarman on behalf of Neighbours and Users of Queen Elizabeth Park Deadline 6 Submission - Comments on responses submitted for Deadline 5		
WR Para Ref	Point raised	Applicant response to point raised:
	will be lost during installation as a result due to working in the Root Protection Areas.	practised regularly by utility companies, and is confident that it can deliver the project on that basis. Some illustrative photos are provided below that include compliance with the requirements of British Standard BS 5837:2012 - Trees in Relation to Design Demolition and Construction, when working in and around RPAs. The Applicant has also added a new section to the CoCP at Deadline 6 (REP6-010) which covers working near trees.



REP6-110 – Nick Jarman on behalf of Neighbours and Users of Queen Elizabeth Park
Deadline 6 Submission - Comments on responses submitted for Deadline 5

WR Para Ref	Point raised	Applicant response to point raised:
		<p>Photograph 2: Pipeline trench being backfilled following pipe installation below tree roots.</p>  A photograph showing a long, narrow trench dug into the ground. The trench is filled with a dark, granular material, likely gravel or crushed stone, which is being used for backfilling. The trench is situated in a wooded area, with tree roots visible along its length. The surrounding soil is brown and appears to be freshly excavated.

REP6-110 – Nick Jarman on behalf of Neighbours and Users of Queen Elizabeth Park
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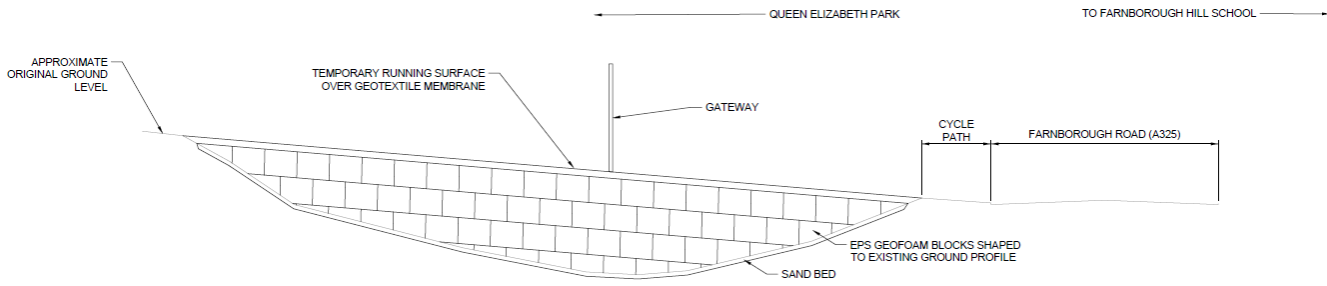
WR Para Ref	Point raised	Applicant response to point raised:
		<p>Photograph 3: Ground protection used in RPAs.</p>  <p>The photograph shows a paved path in a wooded area. The path is made of concrete slabs and is bordered by a concrete curb on the left side. The path is surrounded by trees and vegetation. The text 'GTRAX LTD' is visible on the bottom of the path.</p>



REP6-110 – Nick Jarman on behalf of Neighbours and Users of Queen Elizabeth Park
 Deadline 6 Submission - Comments on responses submitted for Deadline 5

WR Para Ref	Point raised	Applicant response to point raised:
1.2.3	<p>3. Auger Bore</p> <p>We clarified that 100% of the auger bore area is covered by RPAs, belonging to 29 trees, 20 of which are within the compound and 5 of which are Notable.</p>	<p>Mr Jarman has stated that the variation in ground levels, '<i>indicates that it is not possible to operate an auger bore pit and compound in that location</i>'. The Applicant can confirm that its engineers are fully aware of the topography and is confident it can deliver the project whilst complying with the commitments which are secured by the draft DCO.</p> <p>A sketch below demonstrates that by using lightweight <i>geoform</i> block on a bed of sand, no damage or compaction of the RPAs is likely to be experienced. A sketch below demonstrates that by using lightweight <i>geoform</i> block on a bed of sand, no damage or compaction of the RPAs is likely to be experienced. In addition, arboricultural experience indicates that by locating the auger pit in the area of the pond, although within RPAs, few or no roots are likely to be encountered due to the low oxygen and saturated nature of the ground.</p> <p>A sketch below demonstrates that by using lightweight <i>geoform</i> block on a bed of sand, no damage or compaction of the RPAs is likely to be experienced. In addition, arboricultural experience indicates that by locating the auger pit in the area of the pond, although within RPAs, few or no roots are likely to be encountered due to the low oxygen and saturated nature</p>

REP6-110 – Nick Jarman on behalf of Neighbours and Users of Queen Elizabeth Park
Deadline 6 Submission - Comments on responses submitted for Deadline 5

WR Para Ref	Point raised	Applicant response to point raised:
		<p>of the ground.</p> <p>Illustration 7: Queen Elizabeth Park entrance from A325</p>  <p style="text-align: center;">CROSS SECTION THROUGH ACCESS INTO QUEEN ELIZABETH PARK FROM FARNBOROUGH ROAD (A325) SCALE 1:100 (HORIZ) 1:50 (VERT)</p>
1.2.3	<p>5. HDD</p> <p>Full compliance with BS5837:2012 means that</p>	<p>The Applicant has committed to comply with BS 5837:2012 and has updated the relevant control documents to this effect at Deadline 6, including the SSP for Queen Elizabeth Park (REP6-052). The Applicant is confident that it can deliver the project in line with this commitment, including</p>



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	HDD is the only viable solution.	the proposed construction methodology through the park, and that HDD is not the only solution as Mr Jarman suggests.
1.2.3	<p>6. No Plan to use HDD</p> <p>The Examining Authority asked whether it would be acceptable if the QEP SSP were to be submitted as an outline plan, with later approval by the Local Authority. We were given clarification that this meant that it could allow the installation technique to be agreed between outside the examination. We responded that this would be acceptable.</p>	<p>The Applicant strongly objects to having to agree the installation technique for the pipeline through the park with the local authority. To date, neither the local authority nor the Neighbours and Users of Queen Elizabeth Park (NUQEP) have been able to evidence that they have the expertise required to be able to make such a technical decision. The submission of a sketch undertaken by a pupil from Farnborough Hill School is a case in point.</p> <p>To impose a requirement for the approval of the SSP by the relevant planning authority will simply leave open for later debate matters which have been discussed at length during the course of this examination but in respect of which no consensus has been reached. The Applicant has proposed a route for the purposes of this application, as set out in the Queen Elizabeth Park SSP, which is secured by Requirement 17. That route has been assessed and can be delivered whilst respecting the commitments made in the SSP (REP6-052). The Applicant considers that the package of commitments set out in the SSP ensure that its proposal can be delivered in a way which minimises harm to this sensitive location. In the Applicant's view, this fact, together with the submissions made by the Applicant explaining why alternative solutions proposed by interested parties are not viable, or are less viable than its own solution, mean that it would be entirely inappropriate to provide for the approval of the SSP at a later date.</p> <p>The SSP can, and should, be approved now and there must be no scope for fundamental decisions, such as construction methodology, to be deferred by the Secretary of State. If it were deferred in that way, then the Applicant would be very concerned about the deliverability of this scheme.</p>



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		<p>The Applicant has responded in further detail to the Examining Authority's suggested changes to the draft DCO, including a bespoke Requirement for Queen Elizabeth Park, as part of the comments on the ExA's Draft DCO (Document Reference 8.93).</p> <p>Turning to the specific question of construction methodology through the park, the Applicant has utilised its extensive engineering experience and called on its professionals to alight upon the route and construction methodology selected. The Applicant has undertaken ground condition surveys (boreholes) to further expand its understanding of the underlying geology of the area. It has also analysed this evidence (Appendix 1) in line with long established practice, to conclude that the geology does not support the installation of a complex compound curve HDD through this section of the route, given the multiple changes in horizontal direction that would be required.</p> <p>Further to support the Applicant's submitted route, the Applicant has also commissioned a technical report (Appendix 2) to provide an independent viewpoint from a world renowned HDD installation company (HDI Entrepose - VINCI Group) which supports the Applicant's decision not to select a HDD methodology for the section of the pipe through Queen Elizabeth Park. The Applicant can confirm that, to ensure that any HDD solution was of an acceptable risk profile for this section of the route, it would need to be a straight drill, taking a direct route from the play area into Farnborough Hill School. The consequences of such a route have been illustrated on the sketch below (Illustration 8) which would route the pipeline outside of the Order Limits. As can be seen, the trenchless section would cross the A325 into the Farnborough Hill School grounds, and once in the grounds, a reception pit would require trees within the school to be removed. The Applicant did consider a similar route in its response to DL3 (Illustration 9 REP3-013).</p>



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		<p>Whilst a straight HDD removes the complexities associated with a compound curve solution which was previously proposed by NUQEP, the alignment now requires the A325 to be crossed at an angle which has the potential to compromise the A325 substrate and would require acceptance by the Highways Authority. The reception pit and pipe string would require tree removal within the school grounds, a conservation area. The topography for the pipe string appears to rise and fall over a localised elevation change and using the contour data available to the Applicant, it would appear that the elevation change is such that it would not support a 400m radius bend and achieve the required depth beneath the A325. Therefore, to be able to run out a pipe string would require the ground level to be flattened out within the school grounds, to be able to accommodate the natural vertical radius of the pipe string. The pipe string would also have an impact on Farnborough Hill School's main access route into the school. In addition, the pipe string would need to be laid in an area outside of the Order Limits across the playing fields. As the proposal has come so late in the examination process, the Applicant has had no conversations with Farnborough Hill School regarding any of the impacts this new proposal would place on the school. This further serves to underscore the significant problems associated with imposing a requirement for the later approval of the SSP, given that interested parties are now (and presumably will be in future) proposing a route which the Applicant would simply have no power to deliver.</p>

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Illustration 8: Single straight HDD through QEP Option



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Illustration 9: Farnborough Hill School under QEP





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		<p>To date, the Applicant does not believe that sufficient, credible evidence has been presented by interested parties which would call into question the solution proposed by the Applicant.</p> <p>The Applicant would reiterate that it has utilised trenchless techniques in 40 locations along the 97km of the route, and indeed TC018 and TC019 are used at both sides of the park. This demonstrates that the Applicant is in no way averse to the use of trenchless technology, where appropriate, but in every case this has been assessed by experts to be within the range of tolerable risk.</p>
2.1	<p>Additional Documents Required for BS5837: 2012 include an Arboricultural Impact Assessment, Tree Protection Plan and a Topographical Survey</p>	<p>The Applicant can confirm that details of tree works, protection and retention will be included in the Landscape and Ecological Management Plan.</p> <p>The Applicant can also confirm that the alignment has been designed with the required level of topographical data. This may be further supplemented during detailed design.</p> <p>With regards to the ground level change near A325 the, please see the response to 1.2.3 – 3 above.</p>
2.2	<p>Other Points for Inclusion</p> <p>Given the adherence to BS5837:2012 we also consider that additional documents are required as part of the dDCO.</p>	<p>The Applicant has committed to comply with BS5837:2012 and updated the relevant documents to this effect at Deadline 6, including the SSP for Queen Elizabeth Park (REP6-052).</p>

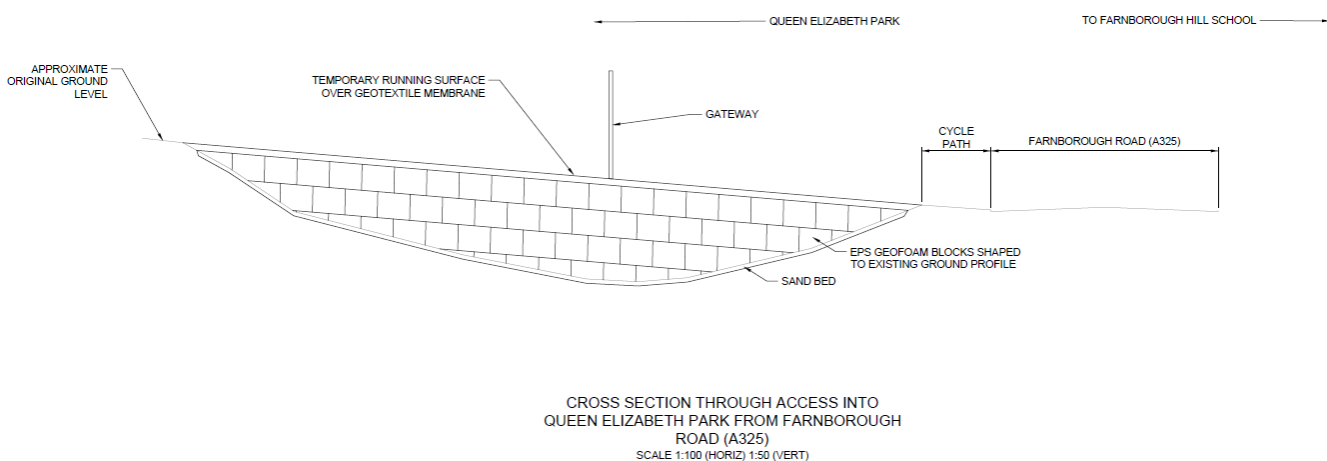


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2.3	<p>Root Protection Areas</p> <p>We note that the standard states that the RPA of a tree is the minimum protected area that the tree needs to survive.</p>	<p>The Applicant does recognise that the calculation of the RPA is a mathematical process prescribed by BS5837 and may not resemble the real root pattern of any particular tree.</p> <p>The Applicant's experience of installing pipelines shows that the roots can often occupy a smaller area than the RPA. The variance in root growth is influenced by many factors such as local topography, including ditches, banks, compact surfaces such as well used paths etc. This is acknowledged in section 4.6.2 of the BS5837.</p>
3.1	<p>Tree and bat survey</p> <p>Pollarded Willow (RBC-001) is listed as Notable on the Woodland Trust's Ancient Tree Inventory (number 197333).</p>	<p>The pollarded willow is not classified as a veteran tree. The survey undertaken by Calyx (REP5-063), states that RBC-001 Pollarded Willow '<i>has potential to develop into a veteran with further age and development of decay</i>'. This development to a veteran would not be affected by any pruning or lopping. The Applicant would also point out that this tree is pollarded and its shape is a direct result of regular lopping. As shown on the SSP for QEP (Document Reference 8.57 (3)), this tree is to be retained.</p>
3.2	<p>RBC response to Deadline 3 comments</p> <p>The tree schedule submitted by the applicant does not identify the trees to be felled.</p>	<p>The Applicant has provided a tree schedule within the SSP for Queen Elizabeth Park at Deadline 6 (REP6-051) outlining which trees would be removed as a result of the works.</p>
3.3	<p>Veteran and notable trees</p> <p>Given the number of RPAs which overlap in any one</p>	<p>It is not clear what point is being made here but the Applicant has committed to comply with BS5837:2012. The Applicant is very confident that it can deliver the project in line with that commitment.</p>



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	area, it is difficult to see how contractors could identify which tree any particular root belongs to.	
3.4.2	<p>Noise Assessment</p> <p>Given that a noise assessment survey was done, we request that the results of the survey are published.</p>	The Applicant has undertaken a noise assessment, which is presented within ES Appendix 13.3 Noise and Vibration Technical Note Addendum - Revision No. 2.0 (REP4-017). This shows that the noisiest activities are generally associated with urban street working and drilling sites. Open cut methods within rural areas and open spaces, such as those generally proposed at QEP, use quieter machinery, which are less likely to exceed significance thresholds.
3.4.3	<p>Expansion of Pit Areas</p> <p>Page 63, WR Para ref: Section 4.8, Esso's comment:</p> <p>'The assertion that the reception pits have become compounds or have expanded is not correct. The Applicant has provided a standardised indicative layout appropriate to the current design stage of the</p>	<p>The use of preliminary design within the DCO application on the basis of Limits of Deviation is a very standard approach for major infrastructure projects, where detailed design typically follows the authorisation. The Applicant has been transparent and provided the most up to date information available as the iterative design process progresses. A significant amount of the information that has been produced in order to respond to the questions and concerns raised during this examination are not indicative of the level of detail that is normally produced and submitted as part of a DCO application.</p> <p>The size of the reception pit area is based on a number of variables (e.g. specific geology) and this will dictate the size of the plant/machines required to undertake the work. Likewise, the Applicant may utilise a larger machine, because it may be more efficient than to have bespoke machines for each auger, and the Applicant can use the same machine across a number of sites. This also reduces the number of variations in temporary reception and drive pit sizes and</p>


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	<p>project. Only equipment required for the works at this location will be situated here. Any welfare units, if required, would be self-contained.'</p> <p>There is also no further clarity on the requirement (or otherwise) for a generator for offices or site lighting. This is particularly important because it affects whether numbers 22, 24 and 25 Queen Victoria Court will require noise screening.</p>	<p>equipment required to build these pits. Use of the same machine in numerous locations is also more efficient than bespoke set-ups for each individual auger site.</p> <p>The Applicant has now produced a further cross section sketch which shows an indicative temporary lightweight ramp sketch (Illustration 10) showing the likely make up of the temporary ramp and ground build up and how this would interact with the RPAs in the area for the reception pit TC019.</p> <p>Illustration 10: Queen Elizabeth Park Entrance from A325</p>  <p style="text-align: center;">CROSS SECTION THROUGH ACCESS INTO QUEEN ELIZABETH PARK FROM FARNBOROUGH ROAD (A325) SCALE 1:100 (HORIZ) 1:50 (VERT)</p>



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		In terms of generators, the Applicant has made commitment G24, which states that <i>'in the absence of a mains electricity supply, super silent pack generators would be used as an alternative power supply'</i> . ES Appendix 13.3 Noise and Vibration Technical Note Addendum - Revision No. 2.0 (REP4-017) includes generators within the list of machinery included within the noise assessment (see Table 1.3), which has been used for determining the locations of noise screening.
3.4.4	<p>Union Street Danger to Cyclists</p> <p>Raised questions and concerns about the proposed temporary alternative cycle route along Union Street</p>	<p>The Applicant acknowledges that the existing road-based route along Union Street may be less favourable than using the cycle path through the Park, however it is an existing alternative. The Applicant anticipates that the park cycle route would only need to be suspended for approximately three months.</p> <p>As outlined in the Applicant's Comments on Responses submitted for Deadline 4 (REP5-021), Union Street provides an adequate alternative route and there is no evidence that it is dangerous for cyclists.</p>
3.4.5	<p>Local Awareness of Esso's Plans</p> <p>The increasingly small areas covered by blue shading, illustrate how Esso's communications did not cover the catchment area of the park. We would also like to draw specific attention to</p>	<p>The Statement of Community Consultation (SOCC) (Application Document APP-035) set out that properties within 50m of the Order Limits would receive direct mail information regarding the statutory consultation. This was met by the mailing.</p> <p>The Applicant has investigated the houses identified as 'missed' in the non-statutory corridor consultation mailing map. The Applicant can confirm these addresses were on the mailing list (specific house numbers have been checked) and an updated map has been produced (illustration 11 below).</p>

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	<p>some of the addresses which were excluded.</p>	<p>Illustration 11: Updated map of properties contacted at the Corridor Options Consultation</p>  <p>The Applicant would also highlight that the promotion of the consultation did not rely solely on direct mail to those communities in the vicinity of the scheme. Community Consultation was set out in Chapter 6 of the Statement of Community Consultation (AS-013). This chapter sets out</p>



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		<p>the multiple channels used to promote the consultation to those living within the vicinity of the scheme. These are outlined below:</p> <ul style="list-style-type: none"> • newspaper adverts, including within national press; • media coverage; • updates to the project website; • an e-newsletter; • information deposited at accessible community locations; and • letters to local councillors and authorities to help the project raise awareness within the community.
3.4.6	<p>Accuracy of Representation of Order Limits</p> <p>Raised comments about the approximation of the Order Limits being 30m when the Order Limits within the park are 36m.</p>	<p>All of the communications materials produced throughout the 97km project have referred to the Order Limits being approximately 30m wide. The Applicant has acknowledged this point in its earlier submission (REP6-075) but does not agree it was intentionally misleading.</p>
3.4.7	Type of Pond	<p>The Applicant used the term 'ornamental' to reflect the naming on the information board at the park. However, the Applicant is happy to just refer to the pond as a 'temporary pond'.</p>



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	The Applicant has used the term 'ornamental' when the description on Rushmoor Borough Council's website is a temporary pond.	
3.4.8	Farnborough Hill Grade I Listing Planning permission was granted to install a floodlit astro turf sports pitch in October 2014.	The Applicant has assessed the impacts of its own project when deciding which route to progress. It did not take into account determinations on other planning applications when coming to this decision, as each project needs to be assessed in light of its own impacts and benefits, and not as a comparison to others.
3.4.9	Impact of Stringing Space on Sports Facilities at Farnborough Hill – including pupils sketch The Open Cut installation through the grounds of Farnborough Hill School would have a greater impact on the school than HDD stringing.	The Applicant has been in close correspondence with the Farnborough Hill School, the governors, and the bursar, who are happy with the submitted route as an open cut trench around the outer limits of the school fields and they have indicated that their preference is to leave the remainder of the school fields as shown in the sketch to remain available for the school's use. The Applicant is not able to comment on information submitted by a pupil of the school. The Applicant agrees that it is working in a known sports area as part of NW18, however this is with the agreement of the school.



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3.4.10	<p>Clearance of Trees Within the Easement</p> <p>Asking for clarification that trees within the easement above an HDD bore would not be removed as part of the installation activities.</p>	<p>The Applicant would not be removing existing trees that are located over areas crossed by trenchless crossings. The Applicant submitted an updated SSP for Queen Elizabeth Park at Deadline 6 (REP6-051), which included a schedule of the 30 trees that would be removed.</p>
3.4.11	<p>No Response to Concerns About Notable Trees</p> <p>Page 88, response to Woodland Trust: Esso's response does not address the concerns about Notable Trees and in point 1.3, Esso state that all Veteran Trees in the park receive B3 mitigation.</p> <p>The technical note has been updated, renamed and resubmitted as an appendix to the LEMP without an indication in the examination</p>	<p>The Applicant identified the trees at Queen Elizabeth Park as being a notable woodland group – W67 in its ES Appendix 10.2 submitted with its Application (Application Document APP-115).</p> <p>In addition, the Applicant has made two commitments in relation to notable trees. Commitment G65 states that '<i>where notable... trees would be retained within or immediately adjacent to the Order Limits, the trees and their root protection areas would be protected where they extend within the Order Limits and are at risk. This would be by means of fencing or other measures</i>' and commitment G86 states that '<i>Works to notable... trees, where at risk of damage, would be supervised by the ECoW and supported by an experienced aboriculturalist</i>'.</p> <p>Mr Jarman has misquoted the Applicant's submission at Deadline 5 (REP5-021). He claims Esso stated '<i>that all Veteran Trees in the park receive B3 mitigation</i>'. This is incorrect; the Applicant in fact said 'these trees would fall within B3 in the mitigation hierarchy'. This was in reference to the three trees being discussed by the Woodland Trust in REP4-089 and not all veteran trees.</p>



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	library that the earlier document has been superseded.	<p>The veteran tree S2700 – T22 requires less protection, as it is located above the trenchless bore and therefore would not be impacted.</p> <p>The Approach to Ancient Woodland and Veteran Trees has been included within Appendix C of the Outline LEMP (Document Reference 8.50 (3)) in order for it to be secured as part of the examination process. It was renamed to better reflect the purpose of the document, i.e. that it indicates an approach rather than a mere technical note.</p> <p>The Applicant has included all additional veteran trees that have been identified either on the Woodland Trust Inventory or by the project surveys, into the Approach to Ancient Woodland and Veteran Trees within Appendix C of the Outline LEMP submitted at Deadline 7 (Document Reference 8.50 (3)). This includes veteran trees added to the Woodland Trust Inventory since August 2019, when the last search was undertaken. The document will continue to be updated should additional veteran trees be identified. The new veteran trees added to the Inventory have also been added to the SSP for QEP (Document Reference 8.57 (3)).</p>
3.5	<p>Response to Allegation That the Petition Was Not Accurate</p> <p>We strongly dispute this allegation. We have always been diligent in reading and understanding all information presented to the Examination. We have always tried to gain the fullest</p>	<p>The Applicant has not changed its position with regards to the petition's accuracy of information. Claims such as that the Applicant would remove all trees within the Order Limits were inaccurate, based on the information at the time of submission of the application. The secured narrow working commitment is legally binding and would restrict the Applicant from removing all trees within the Order Limits.</p> <p>With regard to the statement '<i>We have always tried to gain the fullest and most accurate understanding of the plans</i>', the Applicant would note that the group did not seek information from the Applicant to support their understanding of the proposed plans before launching the petition. With regard to the statement '<i>We have always tried to gain the fullest and most accurate understanding of the plans</i>', the Applicant would note that the group did not seek information</p>



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	and most accurate understanding of the plans we possibly could.	from the Applicant to support their understanding of the proposed plans before launching the petition. With regard to the statement ' <i>We have always tried to gain the fullest and most accurate understanding of the plans</i> ', the Applicant would note that the group did not seek information from the Applicant to support their understanding of the proposed plans before launching the petition. The Applicant was pleased to speak directly with the group's representative after the last environmental hearing and hopes this constructive dialogue can continue going forward. The Applicant will not remove any mature trees and will employ root protection methods to mitigate impacts to the roots of mature trees (Document Reference 8.57 (3)).
4.0	<p>Additional Notable Trees Identified Since Deadline 5</p> <p>The Woodland Trust has added four more Notable Trees which are within the Order Limits to the Ancient Tree Inventory.</p>	<p>The Applicant identified the trees at Queen Elizabeth Park as being a notable woodland group – W67 in its ES Appendix 10.2 submitted with its Application (Application Document APP-115).</p>

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2	<p>Proposed Alternative HDD Launch Area in QEP</p> <p>Suggestion to use an HDD launch area further within the park as an alternative option.</p>	<p>Illustration 12: NUQEP Plan Extract showing proposed HDD launch area</p> <p>The Applicant has interpreted the limited information presented in support of this proposal and responds with the following comments:</p> <ul style="list-style-type: none"> • The location appears to require a significant number of trees to be removed. • The drill pit area size would be of a similar size, as noted in the Applicant's response at Deadline 5 (REP5-021).

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Illustration 13: QEP Compound for NUQEP Plan proposed HDD launch area

- The Applicant has overlaid the proposed drill pit area onto a layout of the park. In sizing this area, it would appear that the author of the proposal (Mr Jarman) has made some incorrect assumptions and that the size of the working area would need to increase from the size shown by Mr Jarman in order to accommodate all of the Applicant's necessary equipment.



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		<p>The Applicant can advise that in this location there is a slight gradient and that, as a consequence, any topsoil that would be stripped from this area would need to be stored in a safe and secure area so that it does not get contaminated with any of the bentonite which would be used to undertake the drilling. The Applicant has made modifications to Mr Jarman's layout to allow for such an area.</p> <ul style="list-style-type: none"> • In order to create this worksite area, a haul road would need to be constructed from the Cabrol Road car park, so that the heavy plant and machinery can be safely delivered to the worksite. The plant and machinery that would be required for the open cut method does not require significant works to be undertaken to the existing track as the plant and machinery is much lighter. However, the drilling rig and all the associated plant is considerably heavier and would require a heavy-duty haul road to be laid. Building the haul route would also require the import of suitable material, such as graded backfill and MOT Type 1. The haul route would not necessarily require a wearing course, but this is dependent on seasonal constraints and the time of year that the works are undertaken. • Having reviewed this proposal against the tree survey, it is apparent that this would result in the removal of 28 trees including three mature trees as opposed to the 30 non-mature trees requiring removal for the Applicant's open trench proposal. Mr Jarman states that this tree clearance can be tolerated, however there is no evidence that this would be acceptable to other Interested Parties, such as Rushmoor Borough Council. Protective measures would be required for the RPA of at least one notable tree crossed by the haul road. • As the Applicant explained at the post hearing meeting with Mr and Mrs Jarman, Mrs Stuart and Ms Salmon on 27 February 2020, the significant challenge with this alignment is the numerous directional changes which would be required to retain the pipe within the Order Limits. The Applicant does not consider that it would be possible to stay within the Order Limits to be able to achieve this alternative route. The drill has an endpoint within Farnborough Hill School which must be met as the length and layout of the pipe string can



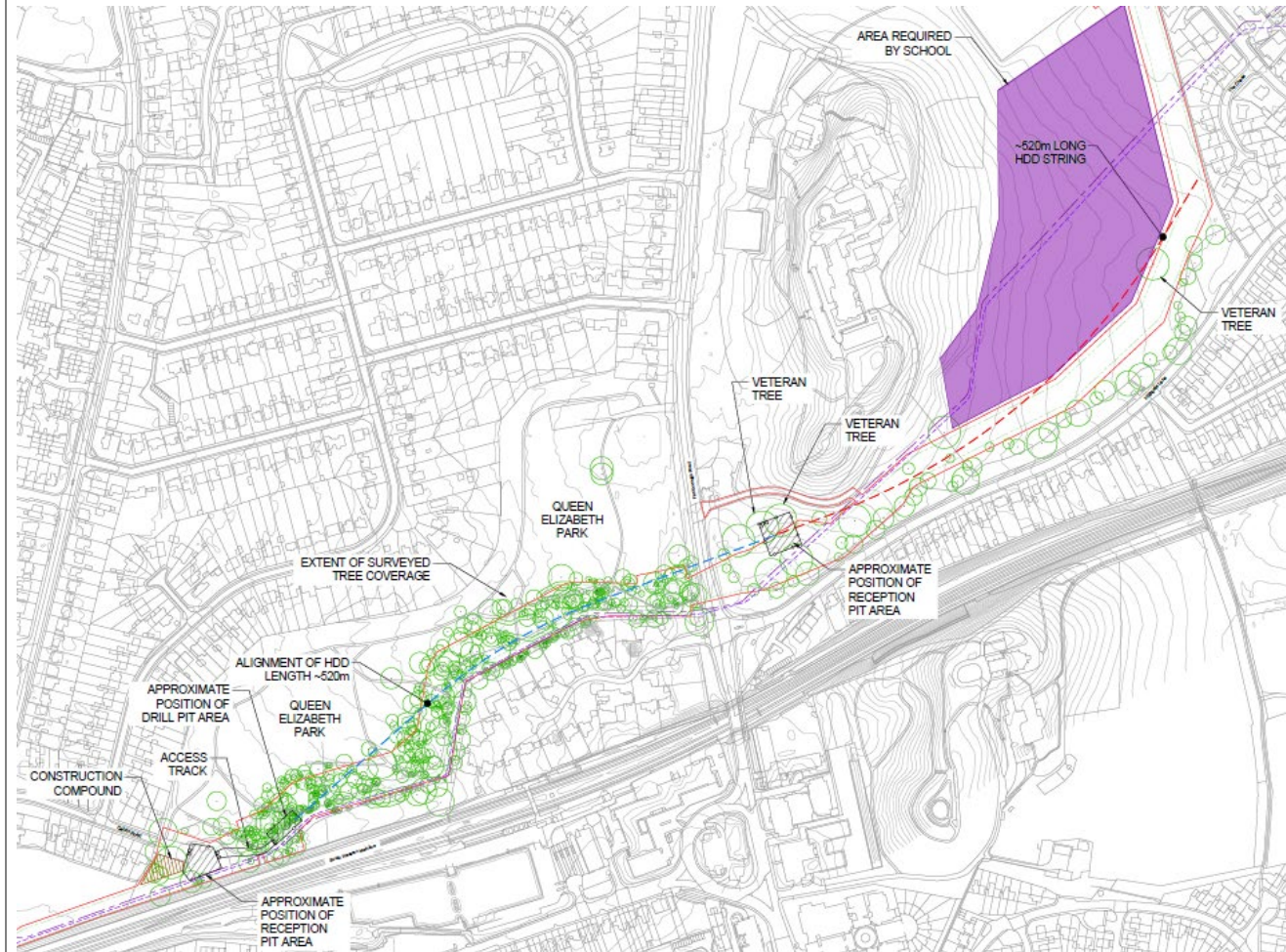
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		<p>only be derived from a particular location. To achieve this, not only is the drill required to make vertical changes in direction, it would also have to make horizontal directional changes, which the geology will not readily support. The Applicant may have to undertake several attempts to drive the HDD through due to these ground conditions, which would significantly increase the time works are undertaken within the park. Whilst it may be possible to steer the pilot drill through these numerous directional changes, the risk increases exponentially when the reamer is pulled back, which enlarges the bore to a sufficient size to allow the pipe string to be pulled back.</p> <ul style="list-style-type: none"> • With horizontal and vertical changes in direction, referred to as a compound curve, and the underlying geology of sands and gravels, it is extremely unlikely that the geology will allow the hole to remain open to allow the string to be pulled back. This is due to the make-up of the substrate of sands and gravels being considered unstable for HDD operations of this magnitude (see attached borehole data at Appendix 1). In order to try to keep the bore open, bentonite/mud would need to be pumped into the bore. This is designed to form an open tube through which the pipe string can be pulled back, however sands and gravels are well known to have numerous voids and loose areas. These can provide pathways which allow the pressurised bentonite/mud to 'frac' or 'break out'. This means that the pressurised bentonite/mud could flow, uncontrolled, from underground to the surface. The location of where the liquid reaches the surface would depend on the size and location of the pathway. Whilst the bentonite/mud is not toxic, it can nevertheless cause environmental impacts (including to vegetation, animals and water receptors). Wherever it is found, it would require an environmental clean-up which may involve the removal of topsoil. The need to avoid potential 'frac out' is well understood by experienced HDD engineers. Further information regarding risks and consequences of 'frac/break outs' can be found at https://utilitymagazine.com.au/what-is-a-frac-out-in-hdd. • Other than the risks noted above, there is still a strong possibility that a number of trees would need to be removed within Farnborough Hill School. The Applicant has covered these



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WR Para Ref	Point raised	Applicant response to point raised:
		<p>in its response at Deadline 5 (REP5-021). Other than the risks noted above, there is still a strong possibility that a number of trees would need to be removed within Farnborough Hill School. The Applicant has covered these in its response at Deadline 5 (REP5-021). The Applicant still maintains that the significant risks associated with this proposal with regard to geology and certainty of achieving the HDD, along with the transfer of impact to the Farnborough Hill School poses far greater additional risks, including impacts on the school, greater tree loss, and potential significant long-term environmental damage (to the park and surrounding residents' properties). The Applicant has greater certainty by undertaking an open trench approach through the park, than the proposed HDD proposal and through the commitments made to working techniques believes the impact and overall risk to the project to be lower.</p> <ul style="list-style-type: none"> • Other than the risks noted above, there is still a strong possibility that a number of trees would need to be removed within Farnborough Hill School. The Applicant has covered these in its response at Deadline 5 (REP5-021). The Applicant still maintains that the significant risks associated with this proposal with regard to geology and certainty of achieving the HDD, along with the transfer of impact to the Farnborough Hill School poses far greater additional risks, including impacts on the school, greater tree loss, and potential significant long-term environmental damage (to the park and surrounding residents' properties). The Applicant has greater certainty by undertaking an open trench approach through the park, than the proposed HDD proposal and through the commitments made to working techniques believes the impact and overall risk to the project to be lower.

Illustration 14: Overview of the NUQEP potential HDD crossing at QEP






REP6-111 – Nick Jarman on behalf of Neighbours and Users of Queen Elizabeth Park Deadline 6 Submission - Responses to Action Points arising from the Hearings week commencing 24 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
	2.2 Bore and Stringing Length	<p>In response, the Applicant makes the following comments:</p> <ol style="list-style-type: none"> 1) Without a definitive location for the drive pit, the Applicant has interpreted the proposed location and agrees that the length would be in the region of 535m. 2) Correct, there is sufficient space within Farnborough Hill School to accommodate a 535m string dependent on bullet point 1 above. 3) Correct, however the Applicant has raised concerns in the response to item 2.1 above as to whether it is actually possible for the bore to be made to this location due to the complex curve requirement of the HDD. 4) There is only a limited location where the reception pit could be positioned, as its location is based on the incoming angle of the bore and the direction that the alignment of the string would need to be at in order for the pipe string to be fed into the bore. 5) The Applicant can confirm that a single pull is always an option which carries less risk with regards to any HDD operation. 6) The Applicant would advise that, whilst the single string risk is covered by bullet 5 above, this does not address the significant risk that still remains with regard to the new stringing area for the trenchless proposal and the open trench works in Farnborough Hill School. Both of these works do need to be undertaken at the same time. The Applicant is intending to only undertake works within the school grounds outside term time, as set out in Table 2.1 in the CoCP (Document Reference 6.4 Appendix 16.1 (5)). There is also a commitment to narrow working through the school grounds (NW18), which has a corresponding impact on the Applicant's ability to move through that area quickly. As a result, there is a significant risk in the Applicant's view that it would not be possible to deliver a trenchless solution within the time constraints which the Applicant has committed to, in order to minimise impacts on Farnborough Hill School.



REP6-111 – Nick Jarman on behalf of Neighbours and Users of Queen Elizabeth Park		
Deadline 6 Submission - Responses to Action Points arising from the Hearings week commencing 24 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
	2.3 Connecting the Proposed HDD bore to TC018	<p>In response, the Applicant would say:</p> <ol style="list-style-type: none"> 1) A HDD between the two HDD working areas would require the bore to be in a straight line as the distance is so short that there is insufficient length to allow a natural bend to be created. A straight drill would require a straight pipe string and such a pipe string could impact on the vegetation which is situated between the existing footpath and the southern boundary. Therefore, this may require vegetation clearance to an area which the Applicant has already indicated that it would not interfere with. HDD over a short distance of approximately 30m is possible and there are sufficient pipe stringing areas available, however for such a short distance an open trench technique represents a more efficient method, and there is no specific reason why a trenchless method would be used. 2) As noted in 1 above, an open trench technique represents the better option for this proposed section to allow flexibility around the RPAs. Essentially it would follow the Applicant's existing open trench route through this section.
	2.4 Trees to be removed	<p>Having reviewed this proposal against the Applicant's tree survey it is apparent that this would result in the removal of 28 trees, including three mature trees, as opposed to the 30 non-mature trees requiring removal for the Applicant's open trench proposal. Protective measures would be required for the RPA of at least one notable tree crossed by the haul road.</p> <p>The Applicant's proposal would remove a similar number of less mature trees over a wider area of woodland, so that their individual loss is likely to be far less obvious. However, Mr Jarman's proposal would require the clearance of a block of trees at a single location which is likely to generate a greater visual/landscape impact.</p>
	2.7 Analysis	<p>The Applicant does not believe that all of the risks and consequences have been fully considered by NUQEP when preparing this proposal, it also incorrectly implies that the Applicant's sole objective is to route the new pipeline close to the existing pipelines.</p>



REP6-111 – Nick Jarman on behalf of Neighbours and Users of Queen Elizabeth Park
Deadline 6 Submission - Responses to Action Points arising from the Hearings week commencing 24 February 2020

WR Para Ref	Point raised	Applicant response to point raised:
		<p>The Applicant's primary concern is to install the replacement pipeline with minimal impact and, with the benefit of engineering experience the Applicant has been very clear that a trenchless technique through this section of the route does give rise to significant risks over and above those which would occur from an open trench technique through this area.</p> <p>The Applicant's proposal also protects the notable and veteran trees within the park.</p> <p>The Applicant has clearly identified those trees which would need to be removed and all are of a low quality and spread over the length of the park, whereas the proposal by NUQEP would require a large rectangular area to be stripped bare of all vegetation.</p>
3	Straight Bore Option	<p>In response to the option to use a straight bore option, the Applicant assumes that the NUQEP are proposing that two HDD are used: one to get to the middle of the park and a second to route under the park, beneath the A325 and emerging in Farnborough Hill School.</p> <p>Illustration 15: Proposed two HDD submitted by NUQEP</p>  <ul style="list-style-type: none"> The Applicant would firstly advise that such a proposal has never been shared with the Applicant. This option is located outside of the Order Limits and has been provided very late in the examination process. The Applicant has not surveyed this area of the park, given

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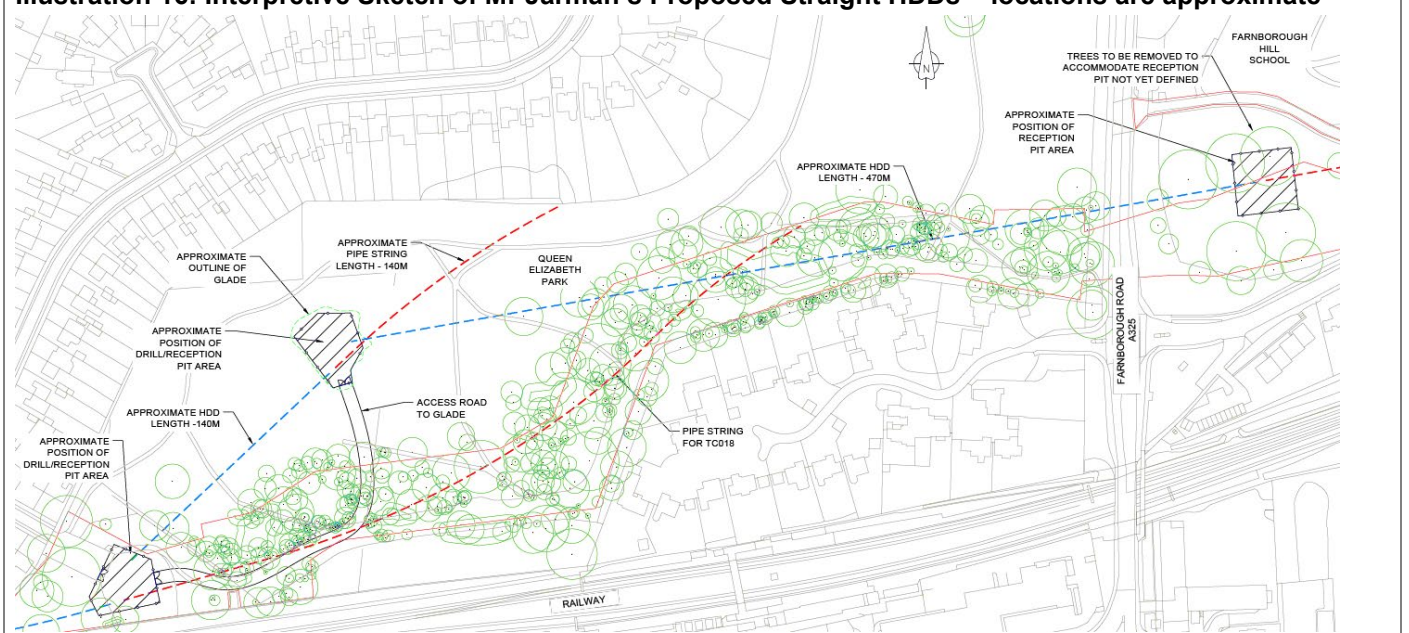
WR Para Ref	Point raised	Applicant response to point raised:
		<p>it is outside of the Order Limits, so is unable to make an informed response and can only respond to the statements as raised by NUQEP.</p> <p>Illustration 16: Interpretive Sketch of Mr Jarman's Proposed Straight HDDs – locations are approximate</p> 

Illustration 17: Copy of Illustration 16 with aerial photography overlay to show the trees



This proposal does not appear to take account of the Rushmoor Borough Council's (RBC) requirement to install the temporary play area in 'the glade' which the Applicant understood to be in a similar area of the park. However, the Applicant has not received a sketch of where RBC understand 'the glade' to be, so the assumption is that Mr Jarman has co-ordinated this proposal with RBC.

Taking each element as it would be required to be installed:

- In order to create this worksite area, a new haul road would need to be constructed in this location from the Cabrol Road car park, so that the heavy plant and machinery can be safely delivered to the location. The plant and machinery that would be required for the open cut method does not require significant works to be undertaken to the existing track as the plant and machinery is much lighter. However, the drilling rig and all the associated plant is considerably heavier and would require a heavy-duty haul road to be laid. Building the haul



REP6-111 – Nick Jarman on behalf of Neighbours and Users of Queen Elizabeth Park		
Deadline 6 Submission - Responses to Action Points arising from the Hearings week commencing 24 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
		<p>route would also require the import of suitable material, such as graded backfill and MOT Type 1. The haul route would not necessarily require a wearing course, but this is dependent on seasonal constraints and the time of year that the works are undertaken.</p> <ul style="list-style-type: none"> • The creation of such a haul road would require the removal of a number of trees and would also have need to pass over the RPAs of many more. Mr Jarman has not provided any tree survey data to advise how many trees would be lost from this proposal, but a number of notable trees are located in the vicinity of the haul road. A review of the Applicant's tree data shows that, where this proposed haul road intersects with the Order Limits alone, at least nine trees would require removal including two notable trees and another 36 RPAs would need to be built over including two additional notable trees. • Creation of a drive and reception pit within the middle of the park would be of a size comparable to the area adjacent to the play area. • The Applicant is not able to confirm or otherwise comment on the proposed stringing area as Mr Jarman has provided no survey data for this area of the park. The Applicant would note that the area contains footpaths, so there would be an interaction with those, which would need to be managed. The area is also heavily wooded with a number of notable trees in the vicinity of the stringing area. • The Applicant is not able to confirm or otherwise comment on the proposed HDD from the drive compound into Farnborough Hill School other than the points that the Applicant has already made in connection with the NUQEP trenchless proposal made above. The geology beneath the park would still represent a risk, however this is reduced if a straight drill is undertaken. • The Applicant still maintains that there are significant risks associated with this proposal with regard to geology and certainty of achieving the HDD. In addition, the tree loss that would be required in order to install a haul road into the middle of the park, to an area in



REP6-111 – Nick Jarman on behalf of Neighbours and Users of Queen Elizabeth Park Deadline 6 Submission - Responses to Action Points arising from the Hearings week commencing 24 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
		<p>respect of which the Applicant has not undertaken detailed surveys, given it is outside of the Order Limits, may give rise to additional, as yet unidentified, impacts. The Applicant is aware that there are some soft underfoot areas near the middle of the park from walkouts undertaken with stakeholders so these would need to be investigated, understood and mitigation undertaken to enable a 20-tonne load to transfer across the area.</p> <ul style="list-style-type: none"> • The proposal also transfers the installation impact to the Farnborough Hill School which presents far greater additional risks, including impacts on the school and greater tree loss. • The Applicant has greater certainty by undertaking an open trench approach through the park, than the proposed HDD proposal. <p>The Applicant notes that NUQEP says that <i>“Esso should not feel constrained in finding a solution which meets the needs of all Parties”</i>. The Applicant has called on a wealth of UK experience of pipeline laying to arrive at the solution of an open trench method through this section of the route. The Applicant considers that its solution is still the most appropriate from an engineering and environmental perspective at QEP.</p>



REP6-112 - North Surrey Green Party

REP6-112 – North Surrey Green Party Deadline 6 Submission - Comments on the Court of Appeal's ruling on the Heathrow expansion		
WR Para Ref	Point raised	Applicant response to point raised:
N/A	<p>Court of Appeal on Heathrow Expansion</p> <p>In light of the most recent ruling by the Court of Appeal with regard to the legality of the UK government's authorisation of Heathrow expansion, will the Examining Authority now consider the UK government's commitments under the 2015 Paris Agreement on climate change as relevant to this application? Esso's planned pipeline project will increase UK carbon emissions as it will increase the flow of aviation fuel to Heathrow by 44%, facilitating an increase in air traffic. Moreover, the destruction of vegetation, trees, shrubs and hedgerows, along the</p>	<p>The Applicant notes the decision in the Court of Appeal that North Surrey Green Party refer to. The Applicant assumes that the Examining Authority and Secretary of State will take account of all applicable UK Law and Government Guidance in determining this application.</p> <p>The Applicant draws the Examining Authority's attention to the Needs Case for the project as set out in Chapter 2 of the Planning Statement (APP-132). Particular attention is drawn to paragraph 2.4.28 in which it is stated that "<i>the pipeline is not linked to, or necessary for the proposed expansion of Heathrow through the construction of a third runway.</i>" Heathrow Airport Limited endorsed this statement in their relevant representation (RR-191).</p> <p>The Applicant responded to North Surrey Green Party in respect to the claim that the project will increase the flow of aviation fuel by 44% at Deadline 3 (AS-073). The diameter of the pipeline at the Fawley end of the pipeline replaced in 2001 has a diameter of 20cm. This, therefore, limits the throughput of the whole pipeline. The diameter of the replacement pipeline is a business decision taken by the Applicant. Although the increase in diameter from 10" to 12" results in approximately a maximum 44% increase in pipeline volume, it does not mean that the pipeline would transport 44% more fuel. The increased diameter would allow the Applicant to respond flexibly to both seasonal fluctuations in aviation fuel demand and shorter-term changes in demand.</p> <p>Underground pipelines are considered to be a more sustainable form of fuel transport than the equivalent road transport by tanker, and the need for sustainable transport choices is recognised and supported by Government. This pipeline will keep around 100 road tankers off the road every day.</p>



REP6-112 – North Surrey Green Party		
Deadline 6 Submission - Comments on the Court of Appeal's ruling on the Heathrow expansion		
WR Para Ref	Point raised	Applicant response to point raised:
	pipeline route will reduce UK capacity to sequester carbon dioxide, thus also increasing net carbon emissions.	<p>The Applicant has already quantified the potential carbon equivalent from the construction phase of the project. This is presented in Table 1.11 of Environmental Statement Appendix 13.2 (APP-120) and was also set out in the response to the North Surrey Green Party's representation at Deadline 3 (AS-073).</p> <p>The Applicant is committed to reinstating vegetation, for example trees will be replaced on a one to one basis in accordance with commitment G200 as set out within the Outline LEMP (REP6-028).</p>



REP6-113 - North Surrey Green Party

REP6-113- North Surrey Green Party Increase of Carbon Emissions		
WR Para Ref	Point raised	Applicant response to point raised:
A	<p>Carbon dioxide impacts during construction:</p> <ul style="list-style-type: none"> i) Burning of vegetation. ii) Loss of trees and vegetation. iii) Construction traffic. iv) Construction equipment. 	<p>In response to i), the Applicant considers it misleading to repeatedly state at multiple deadlines that there will be impacts from the burning of vegetation. The Applicant has previously responded to North Surrey Green Party on this point at Deadline 3 (REP3-017), where it reminded the Interested Party that commitment G18 (now contained within the Code of Construction Practice – REP 6-009) states, <i>'Bonfires and the burning of waste material would be prohibited</i>. Therefore, the Applicant is committed to ensuring the responsible reuse or disposal of all waste materials including any timber from the removal of trees and vegetation in agreement with the landowner. There would be no burning of vegetation.</p> <p>In response to ii), the Applicant has commitments to reinstate vegetation including trees. Commitment G200 (secured via the Outline LEMP REP6-028) states <i>'Trees that are removed as a result of the construction of the project will be replaced on a one for one basis in accordance with the vegetation reinstatement plans approved under the LEMP. Where possible, replacement tree planting will be located in close proximity to the original tree. It should be noted that such tree reinstatement would not apply to areas where tree removal is for habitat improvement reasons, such as at Chobham Common and this has been agreed with Natural England and the relevant landowners'</i>.</p> <p>In response to iii) and iv), the Applicant has already quantified the potential carbon equivalent from the construction phase of the project. This is presented in Table 1.11 of Environmental Statement Appendix 13.2 (APP-120). This included road transport and plant fuel consumption. The Applicant also responded to this point in response to the previous representation, at Deadline 3 (AS-073).</p>



REP6-113- North Surrey Green Party Increase of Carbon Emissions		
WR Para Ref	Point raised	Applicant response to point raised:
B	<p>Carbon dioxide impacts during operation</p> <ul style="list-style-type: none"> i) Larger diameter pipeline ii) Loss of trees and vegetation. 	<p>In response to i), the Applicant responded to North Surrey Green Party on this point at Deadline 3 (AS-073). The diameter of the pipeline at the Fawley end of the pipeline replaced in 2001 has a diameter of 20cm. This, therefore, limits the throughput of the whole pipeline. The diameter of the replacement pipeline is a business decision taken by the Applicant. Although the increase in diameter from 10" to 12" results in approximately a maximum 44% increase in pipeline volume, it does not mean that the pipeline would transport 44% more fuel. The increased diameter would allow the Applicant to respond flexibly to both seasonal fluctuations in aviation fuel demand and shorter-term changes in demand.</p> <p>In response to ii), the Applicant is committed to reinstating vegetation, including trees lost as a result of the project, as set out within the Outline LEMP (REP6-028).</p>
N/A	<p>In summary</p> <p>The Southampton to London Pipeline project will increase the UK's CO2 emissions by over 332,429 tonnes.</p>	<p>For the reasons outlined above, the Applicant disagrees with the calculations undertaken by the North Surrey Green Party and its conclusions, which are based on inaccurate underlying assumptions.</p>



REP6-114 - South Downs National Park Authority

REP6-114 – South Downs National Park Authority Deadline 6 Submission - Written summaries of oral submissions put at any Hearings held during the week commencing 17 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
2	<p>Summary of Oral submissions from 25 February 2020 hearing</p> <p>The SDNPA summarised its submissions at the hearing.</p>	<p>The Applicant set out the summary of its submissions at Deadline 6 (REP6-071) and updated the draft DCO at Deadline 6 (REP6-003).</p> <p>The Applicant notes the SDNPA summary of submissions.</p>
3	<p>Summary of Oral submissions from 26 February 2020 hearing</p> <p>The SDNPA summarised its submissions at the hearing.</p>	<p>The Applicant set out the summary of its submissions at Deadline 6 (REP6-073).</p> <p>The Applicant notes the SDNPA summary of submissions, and comments in response to specific points as identified in the rows below. Note that some responses below also respond to SDNPA comments on Actions Points, where they cover the same topics.</p>
3.1.8. Action 39 and Table Item 1, 2 and 3	<p>Tree survey</p> <p>The importance of surveying trees in accordance with British Standard BS5837 was noted by the SDNPA, especially given that in the SDNPA's view, previous surveying methodologies undertaken by the applicant</p>	<p>The Applicant has not, as the SDNPA alleges, omitted these trees from its surveys but had surveyed all the locations listed by the SDNPA and recorded which of these were notable as part of its baseline survey programme within the Environmental Impact Assessment.</p> <p>As explained at ISH3, the Applicant has undertaken a tree survey along the whole length of the corridor following the survey methodology set out in Appendix 3 of the Scoping Report (AS-019). The survey mapped notable trees and tree groups and the information was presented in Environmental Statement (ES) Appendix 10.2 Schedule of Notable Trees (Application Document APP-115) and on ES Figure 10.3 (Application Document APP-064) presented at Application in May 2019.</p>



REP6-114 – South Downs National Park Authority Deadline 6 Submission - Written summaries of oral submissions put at any Hearings held during the week commencing 17 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
	<p>had omitted a substantial number of existing trees.</p> <p>SDNPA have undertaken a desktop exercise looking at aerial photography and identified 97 notable trees and 4.8km of hedgerows within or within close proximity to the Order Limits, which have not previously been identified by the applicant. This raises concerns with the baseline evidence prepared by the applicant to support its DCO application.</p>	<p>Therefore, it is misleading for the SDNPA to state that these trees were not previously identified by the Applicant and to suggest that they did not form part of the baseline evidence prepared in support of the Application.</p> <p>The 97 trees identified by the SDNPA on the basis of aerial photography alone, with no site visit undertaken to support that desktop exercise, do not display any specific characteristics that would support classifying the trees as 'notable', beyond their having significant canopies. The Applicant's site survey documented within ES Appendix 10.2 (Application Document APP-115) and Figure 10.3 (Application Document APP-064) has identified only 41 of the SDNPA's list of trees to be notable.</p>
3.1.11 and 3.1.13	<p>The SDNPA confirmed that a National Park Plan on vegetation would be helpful and that detailed drawings would not be required for the entire pipeline route in the National Park. In sensitive areas more in depth plans</p>	<p>The Applicant has submitted the Schedule of Vegetation Retention Commitments in South Downs National Park at Deadline 6 (REP6-076) and has included this in the list of certified documents. This includes the list of commitments that the Applicant has made in respect of each of the trees that the SDNPA has identified in Appendix 2 of their response at Deadline 6 (REP6-114). The schedule of commitments in South Downs National Park is secured by the additional wording added to Requirement 8 in the draft DCO submitted at Deadline 6 (REP6-003).</p> <p>The sample Vegetation Retention and Removal Plans (REP6-065) show areas of Ancient (and potential ancient) Woodland, Veteran (and potential veteran) Trees, notable trees, hedgerows and individual trees. They also show the root protection areas for Ancient (and potential ancient)</p>



REP6-114 – South Downs National Park Authority
Deadline 6 Submission - Written summaries of oral submissions put at any Hearings held during the week commencing 17 February 2020

WR Para Ref	Point raised	Applicant response to point raised:
	<p>would be required based on detailed survey information.</p> <p>SDNPA provided a suggested content for National Park Specific Plans in Relation to Trees and Hedgerows in Appendix 1 of their response.</p> <p>Once the hearings closed the SDNPA offered the applicant a meeting or telephone call with the appropriate specialists in order to try and resolve the outstanding issues and assist all parties in moving forward. Esso were unable or unwilling to do this.</p>	<p>Woodland and Veteran (and potential veteran) Trees. The plans clearly show vegetation that would be retained. The SDNPA comments on the level of detail that it would like to receive on plans are considered to be most appropriately discussed and agreed with the SDNPA through the preparation of drafts of plans and documents that will be prepared and submitted to the SDNPA to discharge draft DCO Requirements, such as the Landscape and Ecological Management Plan.</p> <p>The Applicant requested that the SDNPA provide a copy of its proposed content for a National Park Specific Plan to enable it to discuss and respond. This was not provided prior to the SDNPA Deadline 6 submission. In the absence of this information, and as agreement had been reached in principle on the commitments to secure trees and hedgerows within the National Park (subsequently submitted by the Applicant at Deadline 6), and with only a few days between the hearings and Deadline 6, the Applicant was unable to meet with the SDNPA. It did, however, offer a conference call to discuss matters, but this offer was not taken up by the SDNPA.</p>
<p>3.1.6, 5.1 and Table item 3</p>	<p>A commitment needs to be made that where trees are felled they should be replaced as close as possible. In many cases 1 for 1 tree planting will mean a net</p>	<p>The Applicant does not agree with the SDNPA's suggestion. This policy paper has been produced as a guide to help local authorities in producing trees and woodland policy and strategy as part of their Local Plans. It has no binding, legal effect under the Planning Act 2008 or otherwise; the words '<i>suggested</i>' and '<i>recommended</i>' are used throughout the document when referring to local authority policies and practices. It is certainly not a document aimed at developers of Nationally Significant Infrastructure Projects and in any event does not amount to</p>



REP6-114 – South Downs National Park Authority		
Deadline 6 Submission - Written summaries of oral submissions put at any Hearings held during the week commencing 17 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
	loss to the National Park. For replacement planting therefore the applicant should commit to using replacement planting ratios given in the Woodland Trust's Policy Paper Local Authority Tree Strategies (2016). This includes ratios for the number of replacement trees to be planted based on the diameter of trees being removed.	a general expression of the replacement planting ratios that should be observed by developers, but simply reports on the approach to replacement planting taken by Bristol City Council (2012) in the context of its Planning Obligations Supplementary Planning Document (adopted September 2012).
Table item 4	Vegetation retention and removal plans Amend DCO Requirement 8 to require the written vegetation and removal plan to be submitted to and approved by the relevant local planning authority.	The Applicant does not consider it appropriate for the local planning authorities to approve the retention and removal plans. This is on the basis that the Applicant's ability to determine the final route of the pipeline and to remove vegetation within the Order Limits to deliver that final alignment would be devoid of any value if a power to veto vegetation removal and retention was conferred upon local planning authorities. However, for the area of the National Park, the Applicant has of course now agreed that any vegetation and removal plans submitted under Requirement 8 must be in accordance with the schedule of vegetation retention commitments relating to the National Park (or such changes to that document as may be agreed with the SDNPA) which was submitted at Deadline 6 (REP6-076) (see Requirement 8(1)(b) of the draft DCO) and which <i>inter alia</i> includes numerous commitments to retain specific trees within the National Park.



REP6-114 – South Downs National Park Authority Deadline 6 Submission - Written summaries of oral submissions put at any Hearings held during the week commencing 17 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
Table item 5	<p>It is not clear where replacement planting will take place.</p> <p>SDNPA consider that 1 to 1 replacement tree planting represents net loss in many cases. For replacement planting the applicant should commit to using replacement planting ratios given in the Woodland Trust's Policy Paper Local Authority Tree Strategies (2016). This includes ratios for the number of replacement trees to be planted based on the diameter of trees being removed.</p>	<p>The Applicant has added text to the Outline Landscape and Ecological Management Plan (LEMP) submitted at Deadline 6 (REP6-028) in paragraph 5.2.3 to state '<i>Where possible [reinstatement tree planting] will be in the same location or in close proximity to the tree that has been removed. In some locations existing constraints or the location of the pipeline easement may preclude planting in close proximity and in which case the planting would be undertaken as close as possible to the original location (and still within the Order Limits). Reinstatement planting would be shown on the vegetation reinstatement plans.</i>' The Outline LEMP is secured by Requirement 12 of the draft DCO (Document Reference 3.1 (8)) and any LEMP submitted for approval would need to be in accordance with the outline document certified by the Secretary of State for the purposes of this DCO.</p> <p>The Applicant has responded to the comment on the Woodland Trust's policy paper above.</p>
Table item 6 and 7	<p>Reference to BS5837</p> <p>The Code of Construction Practice and Construction Environmental Management Plan should make reference to arboricultural matters, not</p>	<p>Following the ISH on 27 February 2020, the Applicant has updated Commitment G95 of the Outline LEMP to secure compliance with BS5837, and this has been updated in the relevant documents. The Applicant can confirm that BS5837 was also referenced in the updated CoCP provided at Deadline 6 (REP6-009) in Section 2.11 Working Near Trees. It is also referenced several times within the Outline LEMP (REP6-028), which sets out the project's approach to trees.</p>



REP6-114 – South Downs National Park Authority		
Deadline 6 Submission - Written summaries of oral submissions put at any Hearings held during the week commencing 17 February 2020		
WR Para Ref	Point raised	Applicant response to point raised:
	<p>least construction works being required to be in accordance with British Standard BS5837.</p> <p>A need to secure through the DCO the applicant's stated intention to carry out all works to trees and hedgerows in accordance with BS5837 in a new Requirement in the DCO.</p>	<p>A new requirement is not required with regards to carrying out works in accordance with the BS5837, as the commitment is secured through the CoCP (Requirement 5) and the Outline LEMP (Requirement 12).</p>
3.1.15 and Table item 8	<p>Carry out work in proximity to Ancient Woodland in full accordance with the Forestry Commission's and Natural England's Joint Standing Advice: Ancient Woodland, ancient trees and veteran trees: protecting them from development. If harm is unavoidable, then there should be mitigation to lessen impact and a package of compensation measures agreed.</p>	<p>The Applicant considers the Approach to Ancient Woodland and Veteran Trees contained within the Outline LEMP (REP6-028) to be in accordance with the Forestry Commission's and Natural England's (2018) Joint Standing Advice. The Applicant has set out the mitigation hierarchy within the Outline LEMP and considers that with these measures in place there will be no harm to ancient woodland or veteran trees. This approach has been approved by both the Forestry Commission and Natural England, both having an understanding of where it would be applied along the pipeline route, including through the National Park.</p>



3 References

Bristol City Council (2012). Planning Obligations Supplementary Planning Document. Accessed April 2020. <https://www.bristol.gov.uk/documents/20182/34520/SPD%20Final%20Doc%20Dec2012.pdf/daf75908-50fd-4138-afed-770310a6a431>.

Forestry Commission and Natural England (2018). Ancient woodland, ancient trees and veteran trees: protecting them from development. Accessed April 2020. <https://www.gov.uk/guidance/ancient-woodland-and-veteran-treesprotection-surveyslicences>.

Surrey Heath Borough Council (2015). Turf Hill Park West End Management Plan 2015 – 2025.



Appendix 1: Borehole Data

Project
SLP
 Client
Esso Petroleum Company Limited

Project No.
10021961
 Easting (OS mE)
487051.38

Ground Level (mAOD)
72.93
 Northing (OS mN)
156209.28

Start Date
13/08/2018
 End Date
14/08/2018

Scale
1:55

Sheet 1 of 1

SAMPLES		TESTS			Water Strikes	STRATA		Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Description	Legend			
0.00	ES01					Light greyish brown silty SAND. Sand is fine to medium. Plant remains and rootlets present. (Topsoil).		(0.50)		
0.00 - 0.25	B02							0.50	72.43	
0.25	ES03							(0.50)		
0.25 - 0.50	B04	0.50	PID	<1ppm		Dark brown slightly silty SAND. Sand is fine to coarse. Low cobble content os sandstone. Occasional rootlets present.				
0.50	ES05							1.00	71.93	
0.50 - 1.00	B06							1.10	71.83	
1.00	ES07	1.00	PID	<1ppm		Dark brown slightly silty slightly clayey SAND. Sand is fine to medium. Gravel is subrounded fine. Occasional pockets of clay and rootlets.		(0.25)	71.68	
1.00 - 1.10	B08							1.25	71.43	
1.10	ES09					Light orangish brown slightly gravelly SAND. Sand is fine to medium. Gravel is subrounded to subangular fine. Gravels of flint and sandstone. Occasional rootlets.				
1.10 - 1.25	B10	1.50	SPT(S)	N=25 (3,4/5,6,6,8)		Light orangish brown mottled light grey slightly clayey slightly gravelly SAND. Sand is fine to coarse. Gravel is subrounded to subangular fine to coarse. Gravels of flint. Occasional rootlets.				
1.25	ES11	1.50	PID	<1ppm						
1.25 - 1.50	B12									
1.50 - 2.20	B14									
		2.00	PID	<1ppm						
		2.20	SPT(S)	N=31 (3,4/7,8,7,9)						
		2.50	PID	<1ppm						
		3.00	PID	<1ppm						
		3.20	SPT(S)	N=36 (2,5/8,8,10,10)						
		3.50	PID	<1ppm						
3.70	ES13									
		4.00	PID	<1ppm						
		4.20	SPT(S)	N=27 (3,4/6,6,7,8)						
		4.50	PID	<1ppm						
		5.00	PID	<1ppm						
		5.20	SPT(S)	N=30 (2,4/6,7,7,10)						
		5.50	PID	<1ppm						
		6.00	PID	<1ppm				(8.95)		
		6.50	PID	<1ppm						
		6.70	SPT(S)	N=39 (3,4/7,9,11,12)						
		7.00	PID	<1ppm						
		7.50	PID	<1ppm						
		8.00	PID	<1ppm						
		8.20	SPT(S)	N=41 (3,4/6,7,10,18)						
		8.50	PID	<1ppm						
		9.00	PID	<1ppm						
		9.40	SPT(S)	N=37 (4,5/7,8,11,11)						
		9.50	PID	<1ppm						
		10.00	SPT(S)	N=31 (3,5/5,7,9,10)						
								10.45	62.48	

DRILLING TECHNIQUE			WATER OBSERVATIONS				HOLE/CASING DIAMETER				BACKFILL				
From	To	Technique	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	Top	Base	Backfill
0.00	1.50	Inspection Pit	14/08/2018 10:00	3.75	60	3.25			116	10.00	139	9.40	0.00	0.50	Concrete
1.50	10.00	Dynamic Sample											0.50	1.00	Bentonite
													1.00	10.45	Gravel

Remarks
 Flush cover installed.
 Well development details: DTW prior to development 6.50m bgl, well developed dry twice, water returning clear. Approximately 10l removed.

Termination Depth:
10.45m

Project
SLP
 Client
Esso Petroleum Company Limited

Project No.
10021961
 Easting (OS mE)
487501.20

Ground Level (mAOD)
63.19
 Northing (OS mN)
157111.75

Start Date
12/12/2018
 End Date
02/05/2019

Scale
1:50

Sheet 1 of 2

SAMPLES		TESTS			Water Strikes	STRATA		Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Description	Legend			
0.00 - 0.50	ES01					MADE GROUND: Grass over dark brown gravelly clayey SAND. Sand is fine to coarse. Gravel is sub rounded to subangular fine to medium red brick.				
0.50 - 1.00	ES03	0.30	PID	12.4ppm				(1.48)		
		0.70	PID	10.8ppm						
1.00 - 1.48	ES05	1.20	PID	5.6ppm						
1.48 - 1.95	ES07	1.48	PID	<1ppm		Soft to firm dark brown slightly sandy silty CLAY. Sand is fine.		1.48	61.71	
		1.50	SPT(S)	N=13 (1,2/2,3,3,5)				(0.47)		
1.95 - 2.20	ES09	1.92	PID	<1ppm		Light greenish grey slightly gravelly SAND. Sand is fine to medium. Gravel is rounded to subrounded fine to medium.		1.95	61.24	
		2.20	SPT(S)	N=40 (5,7/10,9,10,11)				(0.25)		
2.20 - 3.94	ES11	2.20	PID	<1ppm		Dense light brown SAND and GRAVEL. Sand is medium to coarse. Gravel is subrounded to subangular fine to medium.		2.20	60.99	
		2.70	PID	<1ppm						
		3.20	SPT(S)	N=41 (6,10/9,9,11,12)				(1.74)		
		3.20	PID	<1ppm						
3.94 - 4.50	ES13	3.94	PID	<1ppm		Stiff light orangish brown sandy gravelly CLAY. Sand is medium to coarse. With rare angular coarse gravel of flint.		3.94	59.25	
		4.20	SPT(S)	N=24 (2,3/4,6,6,8)						
		4.60	PID	<1ppm				(1.24)		
						below 4.80m very gravelly				
5.18 - 6.00	ES15	5.10	PID	<1ppm		Dense greenish grey and light greyish green slightly clayey silty SAND. Sand is fine to medium.		5.18	58.01	
		5.20	SPT(S)	N=29 (2,4/4,7,9,9)						
		5.60	PID	<1ppm						
		6.10	PID	<1ppm						
		6.60	PID	<1ppm						
		6.70	SPT(S)	N=37 (3,4/7,9,10,11)						
		7.10	PID	<1ppm						
		7.60	PID	<1ppm						
		8.10	PID	<1ppm						
		8.20	SPT(S)	N=27 (2,3/4,7,8,8)						
		8.60	PID	<1ppm						
		9.10	PID	<1ppm						
		9.60	PID	<1ppm						
		9.70	SPT(S)	N=39 (4,5/7,9,11,12)						
10.00	EW31	10.10	PID	<1ppm						

DRILLING TECHNIQUE			WATER OBSERVATIONS					HOLE/CASING DIAMETER				BACKFILL			
From	To	Technique	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	Top	Base	Backfill
0.00	1.50	Inspection Pit							169	15.70	169	15.70	0.00	0.50	Concrete
1.50	14.20	Dynamic Sample							139	17.20	139	17.20	0.50	4.00	Bentonite
14.20	17.20	Rotary Core							120	20.00			4.00	20.00	Gravel

Remarks
 Inspection pit excavated by hand to 1.5m.
 Hole commenced 12 December 2018 and drilled to 17.2m by 14 December 2018 where drill casings became stuck. Returned on 30 April 2019 to remove casing and install well to 20m. Hole complete 02 May 2019.
 No confirmed water strikes noted. Possible water strike from ~14.20m. Water resting at 1.75m on 13 December at start of shift.
 Approximately 150 l removed during well development.
 Flush cover installed.

Termination Depth:
20.00m

Project
SLP
 Client
Esso Petroleum Company Limited

Project No.
10021961
 Easting (OS mE)
487494.99

Ground Level (mAOD)
65.08
 Northing (OS mN)
156660.92

Start Date
15/08/2018
 End Date
16/08/2018

Scale
1:50

Sheet 1 of 2

SAMPLES		TESTS			Water Strikes	STRATA		Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Description	Legend			
0.00	ES01	0.00	PID	<1ppm	▼	Dark brown slightly gravelly SAND. Sand is fine to medium. Gravel is subrounded to subangular fine to medium of flint. (TOPSOIL).	[Pattern]	(0.30)	64.78	[Backfill]
0.00 - 0.30	B02									
0.30	ES03									
0.30 - 1.20	B04	0.50	PID	<1ppm		Dark brown slightly gravelly SAND. Sand is fine to medium. Gravel is subrounded to subangular fine to medium. Gravel comprises flint.				
		1.00	PID	<1ppm						
1.20	ES05									
1.20 - 1.50	B06	1.50	SPT(S) PID	N=16 (1,2,2,4,5,5) <1ppm		Medium dense orangish brown slightly clayey slightly gravelly SAND. Sand is fine to coarse. Gravel is subangular fine to coarse of flint. Plant remains present.				
		1.50								
1.90	ES07	2.00	PID	<1ppm		Dense orangish brown slightly silty SAND. Sand is fine to medium.				
2.20 - 2.50	B08	2.20	SPT(S)	N=40 (2,4/8,9,11,12)						
2.50	ES09	2.50	PID	<1ppm		Loose to medium dense silty SAND and GRAVEL. Sand is fine to coarse. Gravel is subrounded to subangular fine to coarse of flint. Low cobble content of flint. Occasional 10cm bands of sand.				
2.50 - 3.20	B10	3.00	PID	<1ppm						
		3.20	SPT(S)	N=7 (2,1/1,2,1,3)						
		3.50	PID	<1ppm						
		4.00	PID	<1ppm						
		4.20	SPT(S)	N=32 (3,5/7,7,8,10)						
		4.50	PID	<1ppm						
4.95	ES11	5.00	PID	<1ppm						
5.20 - 6.70	B12	5.20	SPT(S)	N=26 (3,4/5,7,7,7)	Medium dense to dense light greenish orange and light greenish grey slightly silty SAND. Sand is fine to medium. Alternating fine bands (2mm) of orange and grey sand.					
		5.50	PID	<1ppm						
		6.00	PID	6ppm						
		6.50	PID	<1ppm						
		6.70	SPT(S)	N=36 (3,6/8,8,9,11)						
		7.00	PID	<1ppm						
		7.50	PID	<1ppm						
		8.00	PID	<1ppm						
		8.20	SPT(S)	N>50 (4,8/11,13,11,14 for 72mm)						
		8.50	PID	<1ppm						
		9.00	PID	<1ppm						
		9.50	PID	<1ppm						
		9.70	SPT(S)	N=41 (2,5/7,9,11,14)						
		10.00	PID	<1ppm						

DRILLING TECHNIQUE			WATER OBSERVATIONS				HOLE/CASING DIAMETER				BACKFILL					
From	To	Technique	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	Top	Base	Backfill	
0.00	1.50	Inspection Pit Dynamic Sample Rotary Core	15/08/2018 16:50	3.10					116	15.00	139	12.70	0.00	0.50	Concrete Bentonite Gravel	
1.50	11.20													0.50		5.00
11.20	15.00															5.00

Remarks
 Flush cover installed.
 Well Development details: DTW prior to developing 2.664m bgl. Approximately 120l removed. DTW following developing 2.703m bgl.

Termination Depth:
15.45m

Project
SLP
 Client
Esso Petroleum Company Limited

Project No.
10021961
 Easting (OS mE)
487501.20

Ground Level (mAOD)
63.19
 Northing (OS mN)
157111.75

Start Date
12/12/2018
 End Date
02/05/2019

Scale
1:50
 Sheet 2 of 2

SAMPLES		TESTS			Water Strikes	STRATA		Depth (Thickness)	Level	Install/ Backfill	
Depth	Type/ No.	Depth	Type/ No.	Results		Description	Legend				
		10.80	PID	<1ppm		Dense greenish grey and light greyish green slightly clayey silty SAND. Sand is fine to medium.					
		11.10 11.20	PID SPT(S)	<1ppm N=47 (5,8/10,11,13,13)							
		11.60	PID	<1ppm							
		12.10	PID	<1ppm							
		12.60 12.70	PID SPT(S)	<1ppm N=40 (4,7/9,10,10,11)							
		13.10	PID	<1ppm							
		13.60	PID	<1ppm					(12.02)		
		14.10 14.20	PID SPT(S)	<1ppm N=46 (5,6/10,11,12,13)			14.20 - 15.70m material saturated. Unclear if from drilling water or water strike.				
		14.60	PID	<1ppm							
		15.10	PID	<1ppm							
		15.70	SPT(S)	N=45 (6,6/9,11,12,13)		15.70 - 17.20m no recovery, assumed same material based on SPT recovery					
						SAND (drillers description based on flush returns during open hole drilling)		17.20	45.99		
								(2.80)			
								20.00	43.19		

DRILLING TECHNIQUE			WATER OBSERVATIONS					HOLE/CASING DIAMETER				BACKFILL			
From	To	Technique	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	Top	Base	Backfill
0.00	1.50	Inspection Pit							169	15.70	169	15.70	0.00	0.50	Concrete
1.50	14.20	Dynamic Sample							139	17.20	139	17.20	0.50	4.00	Bentonite
14.20	17.20	Rotary Core							120	20.00			4.00	20.00	Gravel

Remarks
 Inspection pit excavated by hand to 1.5m.
 Hole commenced 12 December 2018 and drilled to 17.2m by 14 December 2018 where drill casings became stuck. Returned on 30 April 2019 to remove casing and install well to 20m. Hole complete 02 May 2019.
 No confirmed water strikes noted. Possible water strike from ~14.20m. Water resting at 1.75m on 13 December at start of shift.
 Approximately 150 l removed during well development.
 Flush cover installed.

Termination Depth:
20.00m

Project
SLP
 Client
Esso Petroleum Company Limited

Project No.
10021961
 Easting (OS mE)
487494.99

Ground Level (mAOD)
65.08
 Northing (OS mN)
156660.92

Start Date
15/08/2018
 End Date
16/08/2018

Scale
1:50
 Sheet 2 of 2

SAMPLES		TESTS			Water Strikes	STRATA		Depth (Thickness)	Level	Install/ Backfill			
Depth	Type/ No.	Depth	Type/ No.	Results		Description	Legend						
		10.50	PID	<1ppm		Medium dense to dense light greenish orange and light greenish grey slightly silty SAND. Sand is fine to medium. Alternating fine bands (2mm) of orange and grey sand.		(10.50)					
		11.00	PID	<1ppm									
		11.20	SPT(S)	N=50 (7,9/10,12,15,13 for 50mm)									
		11.50	PID	<1ppm									
		12.00	PID	<1ppm									
		12.50	PID	<1ppm									
		12.70	SPT(S)	N=36 (3,7/7,9,9,11)									
		13.00	PID	<1ppm									
		13.50	PID	<1ppm									
		14.00	PID	<1ppm									
		14.20	SPT(S)	N=43 (4,6/9,10,11,13)									
		14.50	PID	<1ppm									
		15.00	SPT(S)	N=40 (4,5/5,11,11,13)									
												15.45	49.63

DRILLING TECHNIQUE			WATER OBSERVATIONS					HOLE/CASING DIAMETER				BACKFILL				
From	To	Technique	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	Top	Base	Backfill	
0.00	1.50	Inspection Pit Dynamic Sample Rotary Core	15/08/2018 16:50	3.10					116	15.00	139	12.70	0.00	0.50	Concrete Bentonite Gravel	
1.50	11.20													0.50		5.00
11.20	15.00															5.00

Remarks
 Flush cover installed.
 Well Development details: DTW prior to developing 2.664m bgl. Approximately 120l removed. DTW following developing 2.703m bgl.

Termination Depth:
15.45m

Project
SLP Phase 2
 Client
Esso Petroleum Company, Limited

Project No.
10030398
 Easting (OS mE)
486492.98

Ground Level (mAOD)
63.90
 Northing (OS mN)
156022.00

Start Date
04/06/2019
 End Date
05/06/2019

Scale
1:55

Sheet 1 of 1

SAMPLES		TESTS		DRILL LOG			Water Strikes	PROGRESS		STRATA			Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Type/ No.	Results	TCR% SCR% RQD%	Fl (min ave max)	Flush Rtn%		Date Time	Casing Water	Description	Legend				
0.00 - 0.30	B01 ES02	PID	<1ppm					04/06/2019 12:00	0.00	MADE GROUND: Grass over reddish brown clayey silty SAND with frequent rootlets. (Topsoil)		0.30	63.60		
0.30 - 0.80	B03 ES04											0.80			
0.80 - 1.30	B05 ES06											1.30			
1.30 - 1.70												1.70			
1.70 - 2.40	B07 ES08	PID	<1ppm							MADE GROUND (possible natural?): Soft dark brownish black silty CLAY with high organic content and organic odour.		2.40	62.60		
2.40 - 2.77	B09 ES10											2.77			
2.77 - 3.20		SPT(S)	N=42 (2,5/8,10,11,13)							Very soft greenish grey and yellowish brown CLAY with rare flint coarse gravel fragments.		3.20	62.20		
		PID	<1ppm							Multicoloured very sandy sub angular flint GRAVEL.					
		SPT(S)	N=9 (2,2/2,3,2,2)							Medium dense dark greenish grey well sorted medium SAND.		2.40	61.50		
		PID	<1ppm							Medium dense dark bluish grey fine to medium SAND.		2.77			
		SPT(S)	N=11 (1,2/2,3,3,3)										61.13		
		PID	<1ppm												
		SPT(S)	N=19 (3,3/4,4,5,6)										58.90		
		PID	<1ppm												
		SPT(S)	N=32 (3,4/7,8,8,9)			100							5.00		
		PID	<1ppm												
		SPT(S)	N=33 (2,5/6,8,8,11)			100							5.45		
		PID	<1ppm												
		SPT(S)	N=40 (4,8/7,10,11,12)			100							10.45		
		PID	<1ppm												
		SPT(S)	N=44 (4,7/9,9,13,13)					04/06/2019 16:15	5.50						
		PID	<1ppm					05/06/2019 08:20	1.7						
		SPT(S)						05/06/2019 16:30	5.50						
		PID							1.7						

DRILLING TECHNIQUE			FLUSH DETAILS			WATER OBSERVATIONS				HOLE/CASING DIAMETER				WATER ADDED				
Depth Top	Depth Base	Type	From	To	Rtn %	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	From	To	Volume (ltr)
0.00	1.50	Inspection Pit Dynamic Sample Rotary Core	5.50	7.00	100							139	5.50	139	5.50	0.00	10.00	
1.50	5.50			7.00	8.50	100							116	10.00				
5.50	10.00																	

Remarks
 Borehole terminated on achieving target depth.
 Groundwater strike not observed.
 Flush well cover installed.
 Well development details: Approximately 100l removed.

Termination Depth:
10.45m

Project
SLP Phase 2
 Client
Esso Petroleum Company, Limited

Project No.
10030398
 Easting (OS mE)
486390.89

Ground Level (m OD)
63.62
 Northing (OS mN)
156003.45

Start Date
25-07-2019
 End Date
25-07-2019

Scale
1:50
 Sheet 1 of 1

Depth	Readings (blows/100mm)	Diagram (N 100 Values)								Torque (Nm)	Remarks	
		5	10	15	20	25	30	35	40			45
1												Hand pit to 1.5m depth.
2	5 6 6 7 8 8 13 7 7 7 9 8 8											
3	10 8 10 9 9 8 10 11 11 12 14 15 15 16 16 16 16											
4	14 15 15 17 18 23 24 23 25 26 26 30 33 38 45 50											
5												
6												
7												
8												
9												
10												

DYNAMIC PROBE DETAILS

Test Type: DPSH-B
 Hammer Mass (kg): 63.5
 Hammer Drop (mm): 760
 Cone Diameter (mm): 50.0
 Rod Diameter (mm): 35.0
 Anvil Damper Type: None

Remarks

DP260 progressed from base of hand pit at 1.5m until refusal at 6.6m depth. On completion of dynamic probe, window sample WS260 progressed to refusal at 3.8m depth. See separate log for details.

Termination Depth:
6.60m

Project
SLP Phase 2
 Client
Esso Petroleum Company, Limited

Project No.
10030398
 Easting (OS mE)
486390.89

Ground Level (mAOD)
63.62
 Northing (OS mN)
156003.45

Start Date
25/07/2019
 End Date
25/07/2019

Scale
1:50
 Sheet 1 of 1

SAMPLES		TESTS			Water Strikes	STRATA		Depth (Thickness)	Level	Install/ Backfill
Depth	Type/ No.	Depth	Type/ No.	Results		Description	Legend			
0.20 - 0.82 0.20 - 0.82	B31 ES01	0.20	PID	<1ppm	▼	MADE GROUND: Grass over dark brown and grey slightly silty fine SAND.	[Cross-hatch pattern]	(0.82)	62.80	[Diagonal hatching]
0.82 - 1.20 0.82 - 1.20	B32 ES02	0.82	PID	<1ppm		Greenish grey and light brown mottled purple and orangish brown slightly silty clayey fine to medium SAND.	[Dotted pattern]	0.82		
1.50 - 2.00	B33	1.30	PID	<1ppm					(1.69)	
		1.80	PID	<1ppm						
2.51 - 3.00	ES03	2.51	PID	<1ppm			Dark bluish grey silty fine SAND.	[Cross-hatch pattern]	2.51	61.11
3.00 - 3.80 3.00 - 3.80	B35 ES04	3.00	PID	<1ppm				(1.29)		
		3.80	PID	<1ppm					3.80	59.82

DRILLING TECHNIQUE			WATER OBSERVATIONS						HOLE/CASING DIAMETER				BACKFILL		
From	To	Technique	Date/Time	Strike At	Time Elapsed	Rise To	Casing	Sealed	Hole Dia.	Depth	Casing Dia.	Depth	Top	Base	Backfill
0.00	1.50	Inspection Pit Window Sample	25/07/2019 19:37	1.58	20				127	3.80	127	3.80	0.00	0.40	Concrete
													0.40	0.90	Bentonite
													0.90	3.80	Gravel

Remarks
 Location initially progressed using dynamic probe to refusal at 6.6m depth (see separate log DP260).
 Window sample refused at 3.8m depth. Due to collapse of material, well installed at 3m depth. Flush well cover installed.
 Groundwater strike encountered at 1.58m bgl.
 SPT not undertaken at investigation supervisor request. (Refer to dynamic probe DP260 for details)
 Well development details: Prior to development DTW 1.48m bgl. Approximately 5l removed before well ran dry.

Termination Depth:
3.80m

Project
SLP Phase 2
 Client
Esso Petroleum Company, Limited

Project No.
10030398
 Easting (OS mE)
486110.50

Ground Level (m OD)
63.10
 Northing (OS mN)
155952.79

Start Date
05/08/2019
 End Date
05/08/2019

Scale
1:50
 Sheet 1 of 1

Depth	Readings (blows/100mm)	Diagram (N 100 Values)									Torque (Nm)	Remarks
		5	10	15	20	25	30	35	40	45		
1												Dynamic probe commenced at base of WS261 (4.0m depth)
2												
3												
4	2											
	3											
	6											
	7											
	9											
	11											
	10											
5	11											
	10											
	11											
	13											
	12											
	14											
	14											
	15											
6	14											
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	16											
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	18											
	19											
	21											
7	21											
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10												

DYNAMIC PROBE DETAILS
Test Type: DPSH-B
Hammer Mass (kg): 63.5
Hammer Drop (mm): 760
Cone Diameter (mm): 50.0
Rod Diameter (mm): 35.0
Anvil Damper Type: None

Remarks
Dynamic probe commenced from 4.0m depth at base of window sample WS261. (See log WS261 for details)
Dynamic probe progressed to refusal at 9.0m depth.
Termination Depth: 9.00m



Appendix 2: HDI Technical Note



SLP PROJECT

CROSSING BY HORIZONTAL DIRECTIONAL DRILLING

Country: Great Britain

Region: -

Client: Jacobs

City: Southampton / London

TECHNICAL NOTE - QEP CROSSING

Document N°: QEP TECHNICAL RESPONSE HDI (18-03-2020)

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Indices		Prepared by			Checked by			Approved by		
N°	Description	Date	Nom	Visa	Date	Nom	Visa	Date	Nom	Visa
00	First Edition	18.03.20	JAM/GDR		20.03.20	JAM		20.03.20	AKH	
01	First revision	20.03.20	GDR							
02	Second revision	25.03.20	GDR							



REVISION RECORD SHEET

Revision	Status	Issue Date	Purpose	Description of Updated/Modified Sections (if any)
A	IDC	18.03.2020	Internal Discipline Check	
00	ITC	20.03.2020	Issued to Jacobs	
02	ITC	25.03.2020	Issued to Jacobs	



SUMMARY

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1 PROJECT DESCRIPTION

Esso Petroleum Company, Limited (Esso) will replace 90km (56 miles) of its existing 105km (65 miles) aviation fuel pipeline that runs from the Fawley Refinery near Southampton, to the Esso West London Terminal storage facility in Hounslow.



Figure 1: Overview of the potential HDD crossing at Queen Elizabeth Park (QEP)

Along the alignment where potential obstacles exist, the 12" pipeline will be installed by various trenchless techniques, such as auger bore or horizontal directional drilling (henceforth "HDD"). Each potential crossing must be examined to determine the most feasible method of installation.

Queen Elizabeth Park (QEP) is one such obstacle where the most feasible method of pipeline installation must be determined. It is understood that open trench is the preferred method of installation for this portion of the alignment, but that questions remain in terms of alternative trenchless installation methods, specifically by HDD. The figure above illustrates a potential HDD alignment.

2 PURPOSE

The purpose of the present document is to briefly detail the technical considerations regarding the QEP pipeline installation by HDD, as opposed to the conventional open trench method.



2.1 DEFINITIONS

PROJECT	SLP Project
OWNER	ESSO Petroleum Company (Esso)
MAIN CONTRACTOR	JACOBS
CONSULTANT	Spiecapag / Taylor Woodrow JV
SUBCONSULTANT	HDI (Horizontal Drilling International)

2.2 SPECIFIC DRILLING LANGUAGE OR ABBREVIATIONS

HDD	Horizontal Directional Drilling.
DCA	Drilling Contractors Association – Europe.
FO	Fiber Optic telecommunications line
QHSE	Quality, Health, Safety and Environment.

3 TECHNICAL CONSIDERATIONS / DISCUSSION

3.1 OPEN TRENCH / AUGER BORE

We consider that the most reasonable and feasible method of the 12” pipeline installation within the Queen Elizabeth Park at Farnborough is by conventional trenching, and auger boring underneath the A325 highway. Given the environmental and ROW constraints, our opinion is that conventional is the best method of installation in this section.

3.2 HDD FEASIBILITY

As an alternative method, to avoid trenching and using auger boring, is to perform an HDD from the west entry point to cross the A325 Highway. This is completely feasible from a technical standpoint, and has the advantage of crossing both the QEP and A325 using one single method.

However, the proposed HDD alignment for the crossing of the Queen Elizabeth Park, as presented in Figure 1, is not ideal as presented due to a number of concerns. Briefly below;

- Limited space for installation of equipment and pipe string, cutting of trees to be anticipated.
- Extensive excavation of the top soil layers required consisting of gravels , cobbles and flint stones. (max. anticipated 2,5 m deep)



- If pilot is drilled from west to east, the anticipated cover under the motorway A325 is insufficient due to settlement concerns under a major roadway, to borehole stability and potential drilling fluid frac-out. The exit point would need to be located further away from the highway to increase cover, lengthening the crossing,
- The proposed horizontal curvature is considered difficult due to guidance during drilling as well as the resulting combined curves. It is achievable, so long as the combined curves remain less than $R=400m$,
- The pipeline will be installed outside the designated pipeline corridor in all cases. No single HDD can be performed staying within the designated corridor. The min radius is considered to be 400m (vertical, horizontal, or combined). Permission is needed to drill outside of this corridor,
- Not enough space for the HDD tail string prefabrication, if the minimum $R=400m$ radius is to be respected. A slightly smaller radius ($R=380-390m$) could easily solve this, because in any case the minimum bending radius of this pipeline during the pullback operation is around $R=240m$. The 12" pipeline will have this radius only temporarily as it passes into the HDD borehole. As well, a so called "golden weld" during pulling operation can be considered as an option, where two strings are prefabricated and welded during the pullback. A "golden weld" is not preferred by the drilling contractor as it creates an increase in the operational risk.
- Soil investigation as performed in BH219 and BH55 are considered as insufficient to progress with the HDD engineering. The anticipated drilling depth will be between 15 and 20 m depth. Present ground investigation borehole depths are approx. 10.5 m, although it shows favorable ground, boreholes at drilling depth are required to confirm this.
- In order to avoid the risk of drilling fluid frac out inside the Queen Elizabeth park, in addition to boreholes at drilling depth, a drilling fluid hydro-fracture analysis must be performed to assess the risk of fluid frac-out, and verify the potential design.

3.3 CONCLUSIONS

HDI's opinion is that conventional open trench, combined with auger boring under A325, is the most realistic and feasible method of the 12" pipeline installation in QEP.

Best Regards

Guus de Rechter / Jared Amos



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