

Southampton to London Pipeline Project

Volume 6

Environmental Statement (Volume D)
Appendix 5.1: Scoping Opinion Response
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Appendix 5.1 Scoping Opinion Response1



Appendix 5.1 Scoping Opinion Response

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2.3.1	Description of the development	General	The Environmental Statement (ES) should include a description of the Proposed Development comprising at least the information on the site, design, size and other relevant features of the development. The ES should also include a description of the development and description of the physical characteristics of the whole development, including any requisite demolition works (if required) and the land-use requirements during construction and operational phases. The Inspectorate notes the statement at paragraph 12.4.2 of the Scoping Report that the Proposed Development is unlikely to require the demolition of any residential property, but that effects on residential receptors may include removal of a separate ancillary structure such as a garage or shed. The ES should include a description of any proposed demolition works, where relevant.	A full description of the project including details of proposed demolition works is included in Chapter 3 Project Description. The project would not require the demolition of any houses. However, a small number of single storey garages and outbuildings would need to be removed to facilitate installation of the replacement pipeline. It is also possible that removal of garden sheds/greenhouses, temporary loss of land such as a garden and/or parking area, and the temporary loss of access and boundary features may be required. The impacts on land use are assessed in Chapter 12 Land Use.
2.3.2	Description of the development	General	The Scoping Report identifies that crossings of watercourses will be predominantly open cut, although the Inspectorate notes paragraph 3.6.21 which states that individual crossings of watercourses will be assessed for their suitability as open cut or trenchless crossings. The ES should clearly identify the proposed crossing methodology for all relevant constraints (e.g. watercourses, roads and railways) and ensure the proposed method is assessed. The ES should include appropriate drawings and figures to identify the types of crossings and their location.	Appendix 3.1 Table of Trenchless Crossings lists the trenchless crossings and the assumed crossing methodology. It also lists the reason for the trenchless crossings. All other crossings are assumed to be open cut. The trenchless crossings are shown on the General Arrangement Plans (application document 2.5).
2.3.3	Description of the development	Details of the construction plant/machinery	The ES should ensure it describes the construction activities and likely types of construction plant/ machinery in sufficient detail to ensure adequate assessment of any likely significant effects. The ES should identify whether the construction plant/ machinery would include tall structures, such as cranes for the pipeline installation, and assess any likely significant effects as appropriate. The Inspectorate notes that the Proposed	The construction activities and the likely types of construction plant/machinery are described in Chapter 3 Project Description. Mobile cranes and/or other lifting equipment such as telehandlers will also need to be deployed during construction, principally at the six



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			Development is located within an aerodrome safeguarding zone and has the potential to affect activities at Royal Air Force (RAF) Odiham and RAF Northolt. The Applicant's attention is directed to the comments of the Ministry of Defence (MoD) at Appendix 2 of the Opinion in this regard.	construction logistics hubs and trenchless crossings. The project has had meetings with the MoD to discuss potential works activities.
2.3.4	Description of the development	General	Inspection and maintenance activities for the operational Proposed Development are briefly listed at paragraph 3.9.1 of the Scoping Report; however, the level of detail is sparse. The Inspectorate notes the reference to management of waste at pigging stations during operation in Chapter 8 of the Scoping Report. The ES should describe in detail the likely operation and maintenance activities for the Proposed Development and include an assessment of impacts associated with any operational and maintenance activities that have the potential to result in likely significant effects.	Details of maintenance activities can be found in Chapter 3 Project Description. The Scoping Report stated that there would be very low volumes of waste generated due to the low maintenance of the pipeline anticipated. There are no significant effects identified as a result of the inspection and maintenance activities for the project.
2.3.5	Description of the development	General	The Scoping Report proposes to scope out decommissioning of the Proposed Development. The justification given is that decommissioning would take place far into the future and there is uncertainty regarding the decommissioning process and the likely regulatory framework at that point. The Inspectorate agrees that decommissioning can be scoped out of the assessment on the basis that decommissioning of the Proposed Development is unlikely to occur in the foreseeable future.	N/A Scoping Opinion agrees with Scoping Report.
2.3.6	Alternative	General	The EIA Regulations require that the Applicant provide 'A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects'.	Chapter 4 Design Evolution describes the alternative options that have been considered as part of the development of the project. This includes the environmental assessment of each option and the reasons for selecting the chosen option.
2.3.7	Alternative	General	The Inspectorate acknowledges the Applicant's intention to consider alternatives within the ES and welcomes the intention to include this information in a discrete ES chapter entitled 'Design	Chapter 4 Design Evolution describes the alternative options that have been considered as part of the development of the project. This



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			Evolution', as identified in Chapter 4 and paragraph 17.2.3 of the Scoping Report. The ES chapter should provide details of the reasonable alternatives studied and the reasoning for the selection of the chosen option(s), including a comparison of the environmental effects.	includes the environmental assessment of each option and the reasons for selecting the chosen option.
2.3.8	Flexibility	General	As noted at paragraph 2.3.1 of the Opinion above, there are several elements of the Proposed Development that have yet to be finalised. The Scoping Report describes that it presents a route for the Proposed Development within a preferred corridor alignment. Paragraph 3.1.18 states that the pipeline route and associated Order Limits will be further refined for inclusion in the application for development consent. However, the Scoping Report does not make clear whether the Development Consent Order (DCO) application would present a fixed and final route for the pipeline and associated elements, or whether the Applicant intends to apply for flexibility to address areas of uncertainty.	The assessment is based on fixed Order Limits for the project. The Limits of Deviation show the flexibility in the pipeline route and valve locations. The only location where there is still flexibility in the route is just east of Joan's Acre Wood, where there are two sub-options. A2a sub-option passes Joan's Acre Wood and A2b passes underneath Brockwood Copse and Roadside Strips Site of Importance for Nature Conservation (SINC). Further details can be found in Chapter 3 Project Description.
2.3.9	Flexibility	General	The Applicant's attention is drawn to the Inspectorate's Advice Note Nine 'Using the 'Rochdale Envelope'1, which provides details on the recommended approach to follow when incorporating flexibility into a draft DCO.	The project has not required to adopt a Rochdale Envelope approach to the assessment.
2.3.10	Flexibility	General	The Applicant should make every attempt to narrow the range of options and explain clearly in the ES which elements of the Proposed Development have yet to be finalised and provide the reasons. At the time of application, any Proposed Development parameters should not be so wide-ranging as to represent effectively different developments. The development parameters will need to be clearly defined in the draft DCO and in the accompanying ES. It is a matter for the Applicant, in preparing an ES, to consider whether it is possible to robustly assess a range of impacts resulting from a large number of undecided parameters. The description of the Proposed Development in the	The only location where there is still flexibility in the route is just east of Joan's Acre Wood, where there are two sub-options. A2a sub-option passes Joan's Acre Wood and A2b passes underneath Brockwood Copse and Roadside Strips Site of Importance for Nature Conservation (SINC). Further details can be found in Chapter 3 Project Description.



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			ES must not be so wide that it is insufficiently certain to comply with the requirements of Regulation 14 of the EIA Regulations.	
3.3.1	Scope of assessment – General	Scoping, mitigation, HRA	<p>The Inspectorate recommends that in order to assist the decision-making process, the Applicant uses tables:</p> <ul style="list-style-type: none"> • to demonstrate how the assessment has taken account of this Opinion; • to identify and collate the residual effects after mitigation for each of the aspect chapters, including the relevant interrelationships and cumulative effects; • to set out the proposed mitigation and/ or monitoring measures including cross-reference to the means of securing such measures (eg a dDCO requirement); • to describe any remedial measures that are identified as being necessary following monitoring; and to identify where details are contained in the Habitats Regulations Assessment (HRA report), such as descriptions of European sites and their locations, the results of consultation, and any mitigation or compensation measures, are to be found in the ES. 	<p>The following information can be found in the ES:</p> <ul style="list-style-type: none"> • Appendix 5.1 Scoping Opinion Response describes how the assessment has taken account of the Scoping Opinion; • Chapter 17 Summary of Residual Effects provides a summary of residual effects; • Chapter 16 Environmental Management and Mitigation details mitigation measures and how they have been secured; • Chapter 16 Environmental Management and Mitigation contains details of post construction monitoring commitments; and • All information pertaining to European Sites is contained in the Habitat Regulation Assessment (application document 6.5).
3.3.2	Scope of assessment – General	General	The Scoping Report includes a number of technical reports for aspects that will be appended to the ES. The Inspectorate considers that these aspects are relevant to the assessment of effects and must be included in the ES.	The technical reports provided as part of the Scoping Report have been updated and included as appendices to the ES where relevant to the assessment.
3.3.3	Scope of assessment – General	General	The Scoping Report contains a number of inaccuracies between the main body text and the summary tables. In addition, within the text the Scoping Report describes the intention for further assessment of a variety of environmental matters (eg further desk study or survey information); however, a number of these are then stated as proposed to be scoped out of the ES. The ES must clearly set out the scope of matters assessed within it. Further comments are provided in Section 4 of this Opinion in relation to specific environmental aspects.	Each ES technical chapter includes a summary of what has been scoped into the assessment, taking into account the response received from the Planning Inspectorate in the Scoping Opinion.



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3.3.4	Baseline Scenario	Multiple	The ES should include a description of the baseline scenario with and without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.	The evolution of the baseline in the absence of the project has been assessed in each technical chapter where relevant.
3.3.5	Baseline Scenario	Cumulative effects/other developments	The Inspectorate notes that the Proposed Development is of considerable length and consequently there are likely to be number of other relevant developments in the vicinity. The ES should clearly state which developments will be assumed to be under construction or operational as part of the future baseline.	Appendix 15.1 Long List of Other Developments includes the list of developments that have been considered as part of the future baseline.
3.3.6	Forecasting Methods or Evidence	General	The ES should contain the timescales upon which the surveys which underpin the technical assessments have been based. For clarity, this information should be provided either in the introductory chapters of the ES (with confirmation that these timescales apply to all chapters), or in each aspect chapter. When describing impacts and resulting effects, terms such as 'temporary', 'short term' etc should be given definition in the ES. Temporary impacts should be considered in the context of the receptors affected.	Chapter 6 Overview of the Assessment Process includes the assumed timescale for impacts in the ES. Where different timescales have been used these are explained within the relevant chapter. For example, within the landscape chapter, a 15-year timescale is used to allow for vegetation to mature.
3.3.7	Forecasting Methods or Evidence	General	The Inspectorate expects the ES to include a chapter setting out the overarching methodology for the assessment, which clearly distinguishes effects that are 'significant' from 'non-significant' effects. Any departure from that methodology should be described in individual aspect assessment chapters.	The overarching methodology for the ES is detailed in Chapter 6 Overview of the Assessment Process. A significant effect in terms of the Environmental Impact Assessment (EIA) is one defined as moderate or above.
3.3.8	Forecasting Methods or Evidence	General, significance	The Scoping Report inconsistently describes the proposed approach to determining significance of effects and the role of mitigation. Paragraph 6.1.4 of the Scoping Report states that "the magnitude of assessment takes into consideration all embedded mitigation, good practice and measures included in the Code of Construction Practice (CoCP), the likely duration of the impact and how easily or quickly the change would be reversed." However, paragraph 6.2.1 of the Scoping Report states that	Chapter 16 Environmental Management and Mitigation contains the Register of Environmental Actions and Commitments (REAC). This sets out the proposed embedded design measures (as described in Chapter 4 Design Evolution) and good practice measures and mitigation (which are secured through DCO requirements such as



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			“after initial consideration of the effects of the Project and their potential significance, consideration will be given as to how those effects could be avoided, reduced or remedied. This is known as mitigation.” The ES should clearly explain the methods used to determine significance and describe any mitigation relied upon in the assessment. Further comment on mitigation is provided from paragraph 3.3.14 of the Opinion below.	the CoCP). In the majority of technical assessments, implementation of the embedded design measures and good practice measures is assumed for assessment of potential effects. Mitigation is identified to address potential effects which are likely to be significant. Mitigation is clearly identified within the REAC.
3.3.9	Forecasting Methods or Evidence	General, difficulties encountered	The ES should include details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.	Each ES technical chapter (7 to 15) and relevant appendices include a section of the relevant limitations that have been encountered and how this has affected the assessment.
3.3.10	Residues and Emissions	Multiple	The EIA Regulations require an estimate, by type and quantity, of expected residues and emissions. Specific reference should be made to water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases, where relevant. This information should be provided in a clear and consistent fashion and may be integrated into the relevant aspect assessments.	Expected residues and emissions are described within each technical ES Chapter.
3.3.11	Mitigation	Multiple	The Scoping Report seeks to rely on mitigation measures to be provided within an outline CoCP. The outline CoCP will be taken forward along with a REAC into the Construction Environmental Management Plan (CEMP) for the Proposed Development. The Applicant is seeking to scope out a number of matters from the ES based on delivery of these measures and relies considerably on the actions of a yet to be appointed 'competent contractor'. The Inspectorate does not consider that the outline CoCP and other information presented in the Scoping Report are sufficiently detailed to support scoping out the matters requested. The lack of detail associated at this stage affects the Applicant's justification used to support scoping out these matters. Accordingly the Inspectorate does not agree to scope out the	The CoCP is included in Appendix 16.1. The REAC included in Chapter 16 Environmental Management and Mitigation sets out good practice measures, which are secured through DCO requirements such as the CoCP.



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			matters identified in the Scoping Report on this basis. Further detail on specific aspect matters is provided in Section 4 of this Opinion.	
3.3.12	Mitigation	General	Any mitigation relied upon for the purposes of the assessment should be explained in detail within the ES. The likely efficacy of the mitigation proposed should be explained with reference to residual effects. The ES should also address how any mitigation proposed is secured, with reference to specific DCO requirements or other legally binding agreements.	The REAC in Chapter 16 Environmental Management and Mitigation contains a list of the environmental commitments including mitigation, and how these would be secured. The individual ES technical chapters explain the efficacy of the mitigation proposed.
3.3.13	Risks of Major Accidents and/or Disasters	General	The ES should include a description and assessment (where relevant) of the likely significant effects resulting from accidents and disasters applicable to the Proposed Development. The Applicant should make use of appropriate guidance (e.g. that referenced in the Health and Safety Executives (HSE) Annex to Advice Note Eleven) to better understand the likelihood of an occurrence and the Proposed Development's susceptibility to potential major accidents and hazards. The description and assessment should consider the vulnerability of the Proposed Development to a potential accident or disaster and also the Proposed Development's potential to cause an accident or disaster. The assessment should specifically assess significant effects resulting from the risks to human health, cultural heritage or the environment. Any measures that will be employed to prevent and control significant effects should be presented in the ES.	Chapter 14 Major Accidents provides an assessment of the environmental risk of significant effects resulting from major accidents and disasters applicable to the project. The assessment considers both the vulnerability of the project to a potential major accident or disaster and also the project's potential to cause a major accident or disaster.
3.3.14	Risks of Major Accidents and/or Disasters	General	Relevant information available and obtained through risk assessments pursuant to European Union legislation such as Directive 2012/18/EU of the European Parliament and of the Council or Council Directive 2009/71/Euratom or relevant assessments carried out pursuant to national legislation may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of	Chapter 14 Major Accidents provides an assessment of the environmental risk of significant effects resulting from major accidents and disasters applicable to the project. No mitigation has been identified within the assessment.



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			the preparedness for and proposed response to such emergencies.	
3.3.15	Climate and Climate Change	Climate and Climate Change	The Inspectorate notes the intention described in paragraph 1.5.22 to include an assessment in the ES to “set out the likely impacts on climate change of the project, during construction, and the resilience of the project to climate change.” It is not clear from the Scoping Report where this information would be contained, other than within Chapter 8: Water in respect of the influence of climate change on the Proposed Development through the water environment, as stated at paragraph 1.5.23 of the Scoping Report. The ES should make clear where assessments of effects on climate have been presented and explain what information has been used to determine the assessment e.g. relevant climate change scenarios.	The likely impacts of the project on climate change have been addressed in Appendix 13.2 Air Quality Technical Note. The resilience of the project to climate change has been addressed in Chapters 8 Water, 11 Soils and Geology and 14 Major Accidents of the ES.
3.3.16	Climate and Climate Change	Climate and Climate Change	The ES should include a description and assessment (where relevant) of the likely significant effects the Proposed Development has on climate (for example having regard to the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change. Where relevant, the ES should describe and assess the adaptive capacity that has been incorporated into the design of the Proposed Development. This may include, for example, alternative measures such as changes in the use of materials or construction and design techniques that will be more resilient to risks from climate change.	The likely impacts of the project on climate change have been addressed in Appendix 13.2 Air Quality Technical Note.
3.3.17	Transboundary Effects	Transboundary Effects	Schedule 4 Part 5 of the EIA Regulations requires a description of the likely significant transboundary effects to be provided in an ES.	No transboundary effects have been identified for the project. This is documented in the Transboundary Screening document received from the Planning Inspectorate and dated 2 October 2018 (Planning Inspectorate, 2018).
3.3.18	Transboundary Effects	General	The Scoping Report concludes at paragraph 1.5.17 that the Proposed Development is not likely to have significant effects on another European Economic Area (EEA) State and proposes	No transboundary effects have been identified for the project. This is documented in the Transboundary Screening document received



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			that transboundary effects do not need to be considered within the ES. The Inspectorate notes the Applicant's conclusion in the Scoping Report; however, recommends that, for the avoidance of doubt, the ES details and justifies this conclusion.	from the Planning Inspectorate and dated 2 October 2018 (Planning Inspectorate, 2018).
3.3.20	Reference List	General	It is noted that in several places within the Scoping Report that references in the text to bibliography documents are ambiguous. In the interests of clarity, the ES must ensure specific and accurate referencing to documents used in its compilation.	A reference list is included at the end of each chapter and appendix outlining the documents that have been used in its compilation.
3.4.1	Confidential Information	General	In some circumstances it will be appropriate for information to be kept confidential. In particular, this may relate to information about the presence and locations of rare or sensitive species such as badgers, rare birds and plants where disturbance, damage, persecution or commercial exploitation may result from publication of the information. Where documents are intended to remain confidential the Applicant should provide these as separate paper and electronic documents with their confidential nature clearly indicated in the title, and watermarked as such on each page. The information should not be incorporated within other documents that are intended for publication or which the Inspectorate would be required to disclose under the Environmental Information Regulations 2014.	Confidential documents have been provided as separate documents with their confidential nature clearly indicated in the title and watermarked as such on each page. The details of any confidential information has not been included in any other documents.
4.1.1	Biodiversity	Mortality/injury arising from collision with machinery during construction	On the basis of the low number machinery/vehicles proposed to be moving through the route during construction at any one time, the Inspectorate agrees that this is unlikely to give rise to significant effects and can be scoped out of the ES. The Inspectorate notes the intention to assess mortality/ injury to species during construction arising from other activities, such as those identified in paragraph 7.4.16, including topsoil stripping.	N/A Scoping Opinion agrees with Scoping Report
4.1.2	Biodiversity	Mortality/injury during operation	The Inspectorate agrees that this potential effect can be scoped out of the impact assessment given the absence of a potential effect pathway.	N/A Scoping Opinion agrees with Scoping Report



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4.1.3	Biodiversity	Habitat loss during operation	The Inspectorate agrees that this matter can be scoped out of the impact assessment as significant effects from habitat loss during operation are not likely to occur.	N/A Scoping Opinion agrees with Scoping Report
4.1.4	Biodiversity	Lighting effects	<p>The Scoping Report inconsistently addresses the approach to scoping in/ out of lighting effects. The Scoping Report does not provide sufficiently detailed information including the likely value and likely location of relevant ecological receptors. The Scoping Report also does not provide sufficient detail in regards to good practice measures referred to in order to control such effects. The Inspectorate does not agree that effects to sensitive ecological receptors from lighting can be scoped out of the impact assessment.</p> <p>The ES should include an assessment of likely significant effects to relevant ecological receptors from lighting during relevant stages of the Proposed Development. The ES should also describe any proposed mitigation relied upon and the anticipated efficacy of the mitigation, before concluding on residual effects.</p>	<p>An assessment of the impact of lighting during construction and operation has been included in Chapter 7 Biodiversity. The good practice measure included within the REAC states that lighting would be of the lowest luminosity necessary for safe delivery of each task. It would be designed, positioned and directed to reduce the intrusion into adjacent properties and habitats (G45). Relevant guidance on mitigating the impact of artificial lighting on bats would be applied where practicable. This includes good practice measures that would:</p> <ul style="list-style-type: none"> • limit illumination of confirmed bat roosts, or trees with moderate or high potential to support bat roosts; and • limit times that the lights are on and consider factors such as height of lighting columns and use of light sources with minimal ultra violet.
4.1.5	Biodiversity	Species disturbance arising from changes to noise, vibration or visual stimuli during operation	The Inspectorate agrees that effects of noise and vibration as a result of the flow of fuel in the pipeline and the operation of valves, can be scoped out of the ES on the basis of low likelihood of significant effects. However, the Scoping Report does not provide a description of the likely works to upgrade and modernise the existing pumping station at Alton, including any anticipated noise, vibration or lighting. It also does not provide detailed information on the likely noise and vibration characteristics at the new pigging station at Boorley Green. Therefore, the Inspectorate considers that the ES should clearly describe the proposed operational development and assess impacts on relevant species receptors as a result of changes to	Pigging stations allow the insertion and withdrawal of pipeline inspection gauges (PIGs) into and out of the pipeline. These facilities are essentially sections of pipework that enable PIGs to enter and exit the main pipeline. As such, they do not contain any machinery or plant or any other moving parts and are not sources of environmental noise or vibration. The movement of PIGs along buried pipelines, and the entry or exit of PIGs at pigging stations, is a quiet activity with no noticeable noise above ground.



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			noise, vibration and lighting, from the operational development, where significant effects are likely to occur.	The project also includes installing a single replacement external pump near to the existing pumps at Alton Pumping Station. Appendix 13.3 Noise and Vibration Technical Note concludes that that the operation of the proposed pump would not give rise to adverse noise or vibration effects.
4.1.6	Biodiversity	Effects associated with air quality changes due to construction.	<p>The Scoping Report inconsistently addresses effects from changes in air quality. The Scoping Report concludes that “good practice mitigation measures outlined in Chapter 4, and to be secured through the CoCP, would be sufficient to prevent or reduce changes in air quality during construction as a result of dust deposition.” and that “road traffic flows would not exceed those at which a significant effect could arise to important ecological receptors.” However the Scoping Report also identifies a potential impact pathway on a number of ecological receptors associated with changes to air quality during construction.</p> <p>Having had regard to the information contained in the Scoping Report the Inspectorate does not agree that effects associated with changes to air quality during construction can be scoped out. The Scoping Report does not provide information regarding the location and value of all sensitive ecological receptors that could be within or adjacent to the Proposed Development route and therefore potentially affected by changes in dust deposition. The Scoping Report also lacks information on the anticipated traffic flows and locations, displaced traffic effects, and cumulative effects, particularly in the vicinity of sensitive receptors such as the Thames Basin Heaths SPAs during construction.</p> <p>The ES should assess effects from changes in air quality to relevant ecological receptors during construction, where significant effects are likely. The mitigation relied upon in the assessment should be specified in the ES and appropriately secured.</p>	During construction, the anticipated increase in vehicular movements is less than the threshold criteria set for an air quality assessment; as such, changes to air quality were scoped out as no pathway to potential significant effect is anticipated. For the operational phase of the project, no pathways to effects were found relating to changes in air quality. Further details can be found in Chapter 7 Biodiversity and Appendix 13.2 Air Quality Technical Note.



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4.1.7	Biodiversity	Effects associated with air quality changes during operation	The Inspectorate agrees on the basis of the information provided and the characteristics of the operational development that air quality change effects on ecological receptors during operation can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report
4.1.8	Biodiversity	Operational effects to watercourses	The Scoping Report proposes to scope in operational effects on surface watercourses arising from management works at pigging stations. The Inspectorate also considers that an assessment of likely significant effects to the fluvial geomorphology of watercourses should also be included in the ES. The ES should therefore describe and assess any likely significant ecological effects on watercourses arising from the operation of the Proposed Development, where sensitive ecological receptors are identified and could be affected by impacts to the fluvial geomorphology of watercourses.	<p>Direct impacts to watercourses and riparian habitat would be reduced through the good practice measures set out within the REAC including:</p> <p>For open cut watercourse crossings and installation of vehicle crossing points, mitigation measures would include to:</p> <ul style="list-style-type: none"> • only use a 10m working width for open cut crossings of a main or ordinary watercourse whilst still ensuring safe working; • install a pollution boom downstream of the works; • use and maintain temporary lagoons, tanks, bunds, silt fences or silt screens as required; • have spill kits and straw bales readily available at all crossing points for downstream emergency use in the event of a pollution incident; • place all static plant such as pumps in appropriately sized spill trays; • prevent re-fueling of any plant or vehicle within 15m of a watercourse; • inspect all plant prior to work adjacent to watercourses for leaks of fuel or hydraulic fluids; and • re-instate the riparian vegetation and natural bed of the watercourse using the material removed when appropriate on completion of



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				<p>the works and compact as necessary. If additional material is required, appropriately sized material of similar composition would be used. (G122).</p> <p>Appropriate buffer zones would be established within Order Limits adjacent to identified watercourses (G39).</p> <p>With these measures in place, there are not expected to be significant operational effects on watercourses.</p>
4.1.9	Biodiversity	The introduction or spread of Invasive Non-Native Species (INNS) during construction	The Inspectorate does not agree to scope out the assessment of INNS during construction. The Scoping Report has not confirmed the presence/ absence or abundance of INNS and it is therefore uncertain whether measures proposed within the Scoping Report would be sufficient to avoid a likely significant effect. Appendix 3 of the Scoping Report proposes survey work for both botany and habitats and watercourses. The Inspectorate considers that these surveys should also include incidental recording of any INNS and identify the potential for any INNS to be disturbed by the Proposed Development. Where necessary the surveys should inform an assessment of impacts arising from their presence, where significant effects are likely.	Appendix 7.4 Invasive Non-Native Plant Species Factual Report includes a summary of the incidental records gathered during the ecology surveys. An assessment of the risk of introduction or spread of INNS during construction has been included in Chapter 7 Biodiversity. The potential spread of INNS would be controlled through good practice measures set out in the REAC. A suitable methodology would be produced to set out how identifiable areas with the potential presence of Schedule 9 plant species or other invasive species would be demarcated, and how any affected soils would be appropriately managed throughout the works. (G42).
4.1.10	Biodiversity	The introduction or spread of INNS during operation	The Inspectorate agrees that during operation there is unlikely to be significant effects associated with the introduction and/ or spread of INNS during operation. Accordingly, this matter can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report
4.1.11	Biodiversity	Statutory designated sites – Effects on the Basingstoke	The Scoping Report proposes to scope out this matter on the basis that this waterbody would be crossed using trenchless methods. The Scoping Report does not provide information such as the proximity of the proposed works adjacent to the SSSI. In	The trenchless construction techniques proposed to cross the Basingstoke Canal SSSI (TC013) would involve excavation of drive pits at distances further than 50m from



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		Canal Site of Special Scientific Interest (SSSI)	absence of this information it is unclear whether there is a potential impact pathway to the SSSI and its qualifying features from the Proposed Development. Where impact pathways from the Proposed Development to the SSSI exist and where a likely significant effect may occur this should be assessed in the ES. Any mitigation and/ or design measures relied upon to exclude likely significant effects on this SSSI should be explained in the ES and appropriately secured.	the SSSI boundary. As such, no significant effects have been identified on the canal or its interest features. Further details can be found in Chapter 7 Biodiversity.
4.1.12	Biodiversity	Statutory designated sites – Habitat loss/gain, fragmentation, or modification of all designated sites outside of the Order Limits	With the exception of potential significant effects arising from air quality (including dust) and hydrological changes on designated sites beyond the Order Limits (see also point 4.1.6 above), the Inspectorate agrees that having had regard to the characteristics of the Proposed Development impacts associated with habitat loss/ gain, fragmentation or modification on these designated sites (excluding air quality and hydrological impacts) is unlikely to result in significant effects.	N/A Scoping Opinion agrees with Scoping Report
4.1.13	Biodiversity	Statutory designated sites – Effects on the following designated sites as a result of hydrological change: <ul style="list-style-type: none"> • Solent and Southampton Water Special Protection Area (SPA); • Solent Maritime Special Area of 	The Scoping Report identifies a potential for hydrological impacts on these sites but does not clearly describe the embedded and good practice measures to be relied upon. There is also a lack of clarity regarding when such measures would be applied. The Inspectorate does not agree to scope out an assessment of effects of hydrological change to these designated sites from the ES. The ES should describe and assess hydrological change on these sites, where significant effects are likely to occur. If mitigation measures are relied upon to support the conclusion of no likely significant effects they should be described within the ES and appropriately secured.	The Order Limits are located, at their closest point, 1.85km from the Solent and Southampton Water SPA and Ramsar, Solent Maritime SAC and Upper Hamble Estuary and Woods SSSI boundary. Due primarily to the small-scale nature of the works and the distance between these sites and the project, and the good practice measures outlined in the REAC, there is unlikely to be a significant effect to these sites. Further details can be found in Chapter 7 Biodiversity.



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		Conservation (SAC); <ul style="list-style-type: none"> • Solent and Southampton RAMSAR; and • Upper Hamble Estuary and Woods SSSI 		
4.1.14	Biodiversity	Statutory designated sites – Effects of hydrological change on all other statutory designated sites	The ES should describe and assess hydrological change on these sites, where significant effects are likely to occur.	A more detailed assessment of the effects of hydrological change has been provided in Chapter 7 to all sites. With good practice measures outlined in the REAC in place, there is unlikely to be a significant effect due to hydrological change. Further details can be found in Chapter 7 Biodiversity.
4.1.15	Biodiversity	Non-statutory designated sites – habitat loss/gain, fragmentation or modification effects on Maddoxford Farm Meadows Site of Importance to Nature Conservation (SINC) and River Thames Site of Nature	The Inspectorate notes the current proposal to use trenchless construction techniques under these two non-statutory sites; however, this is not yet confirmed. Where impact pathways from the Proposed Development to these sites exist and where a likely significant effect may occur, this should be assessed in the ES. Any mitigation and/ or design measures relied upon to exclude likely significant effects on these sites should be explained in the ES and appropriately secured.	Trenchless construction techniques would be implemented at Maddoxford Farm Meadows SINC (TC001), comprising the subsurface drilling of the pipeline. There would be no above-ground construction works within this site. As such, no pathway to effects by habitat loss/gain, fragmentation or modification is anticipated for Maddoxford Farm Meadows SINC and so a negligible effect is anticipated. Trenchless construction techniques comprising the subsurface drilling of the pipeline would be implemented at River Thames to Runnymede SNCI (TC034). There would be no above ground construction works within this site and so a negligible effect is anticipated.



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		Conservation Interest (SNIC)		
4.1.16	Biodiversity	Non-statutory designated sites – Habitat loss/ gain, fragmentation or modification effects on all non-statutory designated wildlife sites not listed in paragraph 7.4.66	The Inspectorate does not consider that there is detailed information to agree to scope these matters out of assessment in the ES at this stage. The Scoping Report does not include information to identify all non-statutory sites within the Proposed Development (eg sites in Surrey). The ES should identify, value and assess non-designated sites, where significant effects as a result of habitat loss/ gain, fragmentation or modification are likely to occur.	A more detailed assessment of the effects on habitat loss/ gain, fragmentation or modification has been provided in Chapter 7 Biodiversity. With good practice measures outlined in the REAC in place, there is unlikely to be a significant effect on non-designated sites.
4.1.17	Biodiversity	Effects on Ancient Woodland	It is unclear whether the ES will rely solely on Natural England’s Ancient Woodland Inventory to identify ancient woodland affected by the Proposed Development. Ancient woodlands smaller than 2 hectares (ha) are unlikely to appear on these inventories. The ES should assess likely significant effects on all ancient woodland where significant effects are likely to occur. As noted in point 4.1.6 of the Opinion above, the assessment should consider effects associated with air quality changes (such as dust deposition) on ancient woodland where significant effects are likely. The assessment should include details of the proposed mitigation, together with how this is to be appropriately secured.	Appendix 7.3 Ancient Woodland Factual Report includes a list of all Ancient Woodland within the Order Limits including that on the inventory and Potential Ancient Woodland (PAW - sites less than 2ha identified through field surveys). Further survey work took place to identify areas of Ancient Woodland smaller than 2 ha, details of which can be found in Appendix 7.3 Ancient Woodland Factual Report. Potential effects to Ancient Woodland, including PAW are considered negligible in significance
4.1.18	Biodiversity	Wintershill coastal and floodplain grazing marsh priority habitat – Effects of habitat loss/gain,	The Inspectorate notes that ecological value and water dependency of the coastal and floodplain grazing marsh priority habitat at Wintershill as presented in the Scoping Report is currently based on a desk-based assessment. The Inspectorate also notes the footnote at Table 8.2 of the Scoping Report which indicates that further assessment based on site walkovers will be made of this site which could alter the assessment of water dependency and thus its potential value. Given the current	Coastal and Floodplain Grazing Marsh Priority Habitat at Wintershill would be temporarily impacted by construction activities. However, botanical survey (see Appendix 7.1 Habitats and Botany Factual Report) concluded that the grassland habitats at this location was in poor condition predominantly comprising poor semi-improved or improved grassland. With the



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		fragmentation and modification	uncertainty of the value and water dependency of the habitat at Wintershill, the Inspectorate considers that the ES should confirm the value and assess effects on this priority habitat, where significant effects are likely.	good practice measures included in the REAC, in combination with the low biodiversity value of the habitats affected, the magnitude of change on coastal floodplain and grazing marsh at Wintershill is small and of minor significance.
4.1.19	Biodiversity	Eutrophic standing water priority habitat – Effects of habitat loss/gain, fragmentation or modification	<p>The Scoping Report does not identify hydrological impacts to this priority habitat type at the two locations identified – Basingstoke Canal and the Staines Reservoir Aqueduct – due to the proposed trenchless crossings in this location. The Inspectorate has commented on the Basingstoke Canal SSSI above at point 4.1.11 of the Opinion.</p> <p>The Scoping Report provides limited information with regards to the location of the proposed trenchless crossings, potential impact pathways and the likely ecological value associated with the Staines Reservoir Aqueduct. Where impact pathways from the Proposed Development to sensitive ecological features at Staines Reservoir Aqueduct and/or priority habitat exist and where a likely significant effect may occur, this should be assessed in the ES.</p>	Trenchless techniques are proposed at both the Basingstoke Canal (TC013) and at the Staines Reservoir Aqueduct (TC038). Therefore, there would be no significant effects to eutrophic standing water at these locations.
4.1.20	Biodiversity	Hedgerows – Effects of habitat loss/gain, fragmentation or modification	<p>The Scoping Report proposes to scope out effects on hedgerows on the basis of embedded mitigation to select the alignment and limit the amount of hedgerow to be removed, together with measures to enhance hedgerows. The Scoping Report does not define how many hedgerows would be affected along the length of the Proposed Development or the value of these hedgerows. Given the scale and nature of the Proposed Development and the absence of information with regards to hedgerows, the Inspectorate considers that effects on hedgerows cannot be scoped out of the ES at this stage.</p> <p>The ES should identify and value the amount of hedgerow to be affected by the Proposed Development. The assessment of effects should characterise the extent, duration, reversibility, frequency and timing. The Scoping Report intimates that a net</p>	Appendix 7.2 Hedgerow Factual Report lists the hedgerows that are crossed by the Order Limits. The REAC includes the commitment to only utilise a 10m width when crossing through boundaries between fields where these include hedgerows, trees or watercourses (O1) and hedgerows, fences and walls would be reinstated to a similar style and quality to those that were removed, with landowner agreement (G93). There is a high degree of confidence in the successful reinstatement of hedgerow habitat in the medium to long term and no permanent loss of hedgerow habitat is anticipated. Due to the localised and



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			gain is anticipated. In order to demonstrate net gains, the ES should include calculations of hedgerow losses versus gains.	reversible nature of hedgerow removal, the potential effect is of small magnitude and minor adverse significance.
4.1.21	Biodiversity	Effects on priority habitats, including: <ul style="list-style-type: none"> • Lowland calcareous grassland • Lowland dry acid grassland • Lowland meadows • Lowland mixed deciduous woodland • Wet woodland 	The Inspectorate does not believe it is appropriate to scope these matters out of the ES, not least because the Scoping Report does not confirm whether these priority habitats are present or absent from the zone of influence, beyond those located within designated sites. The Inspectorate also notes at Appendix 3 to the Scoping Report that a number of botany and habitat surveys are proposed for 2018 and considers that these have the potential to amend the conclusions concerning priority habitats currently presented in the Scoping Report. The Inspectorate considers that the ES should identify, value, and assess effects on priority habitats should they be found to be present in subsequent surveys and where significant effects are likely.	A more detailed assessment of the effects on priority habitat has been provided in Chapter 7 Biodiversity. With good practice measures outlined in the REAC in place, there is unlikely to be a significant effect on priority habitats.
4.1.22	Biodiversity	Bats – foraging/ commuting habitat loss and fragmentation	Paragraph 7.4.118 indicates that effects of foraging/ commuting habitat loss and fragmentation on bats would be negligible and should therefore be scoped out of the ES. The Scoping Report includes an intention at Appendix 3 to undertake further surveys and assessment for bats in order to determine the presence of bat roosts. The Inspectorate considers that this information will be a valuable indicator as to the need for more detailed assessment of valuable foraging/commuting habitat. In the absence of the survey information, the Inspectorate does not consider that there is enough information to agree with scoping out impacts to foraging/ commuting habitat and fragmentation. The ES should assess these matters where	Appendix 7.7 Bat Factual Report summarises the results of the field surveys that have been undertaken for bats. An assessment on bats can be contained within Chapter 7 Biodiversity. With good practice measures outlined in the REAC in place, there is unlikely to be a significant effect on bats.



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			significant effects are likely to occur and should be informed by relevant survey information.	
4.1.23	Biodiversity	Badgers	The Inspectorate agrees that effects on badgers can be scoped out of the ES on the basis of their conservation status and the population in the local area. The Inspectorate notes and welcomes the intention to include a Protected Species and Legally Controlled Species Compliance Report to be appended to the ES, which is to address matters associated with the legal protection afforded to badgers.	N/A Scoping Opinion agrees with Scoping Report
4.1.24	Biodiversity	Breeding birds – mortality and injury, habitat loss/gain, fragmentation or modification and disturbance	<p>The Inspectorate notes that the statement that numerous records of notable bird species were provided through the desk study; however, the Scoping Opinion does not provide details confirming the species identified. Targeted bird surveys have not been proposed, although pre-construction surveys for any Schedule 1 birds are identified. The Scoping Report states that breeding birds outside of designated sites are considered to be of “low” ecological value.</p> <p>The Scoping Report states that good practice mitigation would be implemented wherever possible to reduce impacts of mortality/injury to negligible, and due to the abundance of habitats in the wider area and largely temporary nature of the works, effects of habitat loss/gain, fragmentation or modification and disturbance are scoped out.</p> <p>Despite the availability of good practice mitigation, the Scoping Report does not provide the information to justify the value of breeding birds outside of designated sites and therefore, the impacts are not fully understood and the Inspectorate cannot agree to scope out effects on breeding birds. The ES should be informed by relevant survey information necessary to inform the value of breeding birds outside of designated sites, where significant effects are likely. Mitigation relied upon in the assessment should be specified in the ES and appropriately secured.</p>	Appendix 7.8 Birds Factual Report includes a summary of the site survey work completed for birds. An assessment on birds can be contained within Chapter 7 Biodiversity. With good practice measures outlined in the REAC in place, there is unlikely to be a significant effect on birds.



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4.1.25	Biodiversity	Common and rare reptiles – habitat loss/gain, fragmentation or modification	<p>The Scoping Report does not quantify the amount of valuable reptile habitat that would be lost or the abundance of such habitat for local populations. In absence of this information the Inspectorate does not consider there is detailed information to determine that this matter can be scoped out of the ES. The ES should assess the impacts to the reptile species/populations identified through desk study, habitat assessment and the further surveys proposed, where significant effects are likely to occur. Mitigation relied upon in the assessment should be specified in the ES and appropriately secured.</p>	<p>Appendix 7.11 Reptile Factual Report includes a summary of the site survey work completed for reptiles. An assessment on reptiles can be contained within Chapter 7 Biodiversity. With good practice measures outlined in the REAC in place, there is unlikely to be a significant effect on reptiles.</p>
4.1.26	Biodiversity	Fish and other aquatic species – mortality and injury and disturbance	<p>The Inspectorate does not agree that effects on fish and other aquatic species can be scoped out. The Scoping Report does not contain detailed information with regards to the likely presence, value and location of important fish and other aquatic receptors that could be affected by the Proposed Development. Chapter 7 and Appendix 3 of the Scoping Report also acknowledge that desk-based data and field sampling in respect of fish has yet to be obtained.</p> <p>The Inspectorate also does not have detailed information with regards to the mitigation measures nor the certainty that the proposed mitigation would be delivered (such as timing of works, lighting/ noise/ vibration changes). The summary of the method to be applied when installing the pipeline in open cut watercourses in Chapter 3, for example, does not include reference to measures to protect fish species from entrainment, where necessary.</p> <p>The ES should assess impacts from mortality/ injury and disturbance to important fish and other aquatic species, where significant effects are likely to occur. Mitigation relied upon in the assessment should be specified in the ES and appropriately secured.</p>	<p>An Aquatic Ecology Report has been submitted (Appendix 7.5 Aquatic Ecology Factual Report) and an assessment of the impacts on fish and other aquatic species has been included in Chapter 7 Biodiversity. In locations where open cut methods are proposed the REAC includes the following commitments:</p> <ul style="list-style-type: none"> • open cut crossings on five watercourses would be subject to constraints. The tributary of Cove Brook (WCX047) would be subject to constraints between March and May. The tributary of the River Hamble (WCX007), ditch leading to the tributary of the River Hamble (WCX006), Caker Stream (WCX012) and Ryebriidge Stream (WCX021) would be subject to constraints between October to December and March to May. At all five locations, works undertaken in the channel or close to bank tops would be reduced/restricted during these sensitive periods (G171). • a fish rescue would be undertaken at any watercourse crossings that would require



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				isolation and dewatering to prevent fish being trapped, injured or killed during dewatering. Fish would be returned to suitable habitat on the same waterbody unaffected by the works (G49).
4.1.27	Biodiversity	Other notable species (including brown hare, polecat, hedgehog, harvest mouse, yellow necked mouse, pygmy shrew and invertebrates)	The Inspectorate agrees on the basis of the characteristics of the Proposed Development and the largely temporary nature of the vegetation removal which could affect other notable species identified, together with proposed mitigation measures to prevent killing/injuring, that effects on other notable species can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report
4.1.28	Biodiversity	Biodiversity Opportunity Areas (BOAs)	The Inspectorate notes that the Scoping Report identifies BOAs as being of negligible value for biodiversity. In compiling the ES, the Applicant should consider whether there would be any likely significant effects on BOAs as management areas to improve ecological connectivity.	The ES has not assessed impacts to BOAs as they are not designations designed to protect wildlife.
4.1.29	Biodiversity	Receptors – aquatic invertebrates	Table 7.4 refers to aquatic invertebrates; however, no likely effects have been considered on this group in Section 7.4. It is noted that the Applicant is awaiting data from the Environment Agency (EA). Should it be determined that aquatic invertebrates are found to be a valued/important ecological receptor potentially affected by the Proposed Development, this should be detailed and assessed in the ES, where significant effects are likely to occur. The Biodiversity ES Chapter should also cross-refer to the Water Framework Directive (WFD) assessment, as appropriate.	No aquatic macroinvertebrate species of conservation interest were identified, nor any species with a specific sensitivity to the proposed works. Aquatic macroinvertebrate communities within the Order Limits are therefore considered to be of low value. Further details can be found in Chapter 7 Biodiversity.
4.1.30	Biodiversity	Reptiles – mortality/injury	The Inspectorate considers that reptile species should also be included in the proposed Protected Species and Legally Controlled Species Compliance Report appended to the ES.	Reptiles have been included in Appendix 7.17 Protected and Controlled Species Legislation Compliance Report.



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4.1.31	Biodiversity	Length of time for working in-channel during open cut installation	The Scoping Report refers to a reduced period of time when working in-channel and cross-refers back to Chapter 4 Design Evolution. The Inspectorate was unable to find reference to the proposed reduced timing of works in Chapter 4. Where this relied upon for the purposes of the impact assessment, timings should be stated in the ES and be appropriately secured.	Where the duration of the works is relied on for the purposes of the impact assessment, this is made clear in the ES. All relevant measures are set out in the REAC and secured through DCO requirements such as the CoCP.
4.1.32	Biodiversity	Summary table – Statutory designated sites	It is noted that the SSSIs underpinning the Thames Basin Heaths SPA are not identified in this table for disturbance effects. The ES should ensure these SSSIs are also considered.	These SSSIs have now been assessed in Chapter 7 Biodiversity.
4.1.33	Biodiversity	Climate change and biodiversity	The ES should consider effects associated with the loss of habitats (including trees and woodlands) on climate change, where significant effects are likely to occur.	Whilst climate models project changes in temperature with reasonable confidence, the complexities of ecological responses mean that there is a large range of possible future outcomes. However, it can be reasonably assumed that the presence of the project would have no significant impact or cause acceleration of ecosystem responses to climate change. No further assessment has been included on this in Chapter 7 Biodiversity.
4.1.34	Biodiversity	Maximum distance at which significant construction noise effects could occur	These tables identify maximum distances for effects on human receptors only. It is unclear from the Scoping Report how noise effects on ecological receptors will be determined. The ES should clearly explain any assumptions made with regard to the assessment of likely significant impacts arising from noise and vibration on sensitive ecological receptors	Chapter 7 Biodiversity sets out the approach to the assessment of noise effects on ecological receptors. There is no current authoritative guidance on how far a noise study area should extend from construction activities due to the variability of the potential noise generating activities and plant used. Each receptor has been assessed in terms of noise effects as noise-generating activities would vary spatially and temporally during the construction period. Potential impacts of noise would be reduced through the use of good practice measures set out in the REAC.



Scoping Opinion Ref/ID	Scoping Report Topic	Subject Matter/Receptor /Potential Effect	Scoping Opinion Text	SLP Project Response
4.2.1	Water	Groundwater – Changes to groundwater recharge rates – during construction	The Inspectorate agrees that this matter can be scoped out of the ES given the very low likelihood of significant effects arising.	N/A Scoping Opinion agrees with Scoping Report
4.2.2	Water	Groundwater – Interception of shallow groundwater – during construction	<p>The Scoping Report proposes to scope out the interception of shallow groundwater apart from locations where the following constraints occur:</p> <ul style="list-style-type: none"> • Groundwater Dependant Terrestrial Ecosystems (GWDTE) with local, national or international designations that have a high or moderate groundwater dependency; • In the vicinity of shallow groundwater private water supplies; and • Where the pipeline runs parallel to watercourses which may be fed by shallow groundwater. <p>This is on the basis there is a likely absence of receptors sensitive to such effects (other than those mentioned above) along the majority of the pipeline route and effects would be at a scale that is not likely to be significant.</p> <p>An assessment of effects on the abovementioned sensitive receptors must be included in the ES. The Inspectorate agrees that for all other locations this potential effect can be scoped out of the ES given the likely absence of receptors sensitive to this potential effect and the low likelihood of a significant effect arising.</p>	N/A Scoping Opinion agrees with Scoping Report
4.2.3	Water	Groundwater – Interception of shallow groundwater in the pipeline trench which could lead to	The Scoping Report scopes out an assessment of effects associated with poor quality groundwater discharge from the pipeline construction in areas GWSA-A, GWSA-B, and GWSA-C, on the basis that construction works in these areas are unlikely to encounter poor quality groundwater, and thus there is not a pathway to the receptor or, where there is a pathway, it is unlikely to be at a scale where significant effects are likely to	Table 8.5.2 in Appendix 8.5 Potential Effects on Groundwater assesses the potential interception of shallow groundwater in the pipeline trench. The contractor(s) would ensure that the time the trench is open in the vicinity of certain features, would only be as long as necessary for the installation of the



Scoping Opinion Ref/ID	Scoping Report Topic	Subject Matter/Receptor /Potential Effect	Scoping Opinion Text	SLP Project Response
		groundwater of poor quality discharging to sensitive receptors in the Groundwater Study Area (GWSA) A, B and C – during construction	<p>occur. Due to the presence of a large number of landfills, the presence of shallow groundwater and the high uncertainty regarding groundwater quality in area GWSA-D, effects in this area are scoped in to the ES.</p> <p>The Inspectorate notes that GWSA-A has the same amount of water monitoring stations as GWSA-D, a mixture of good and poor quality groundwater and also has shallow groundwater. Therefore, the Inspectorate does not agree that this matter can be scoped out for the GWSA-A.</p> <p>The Inspectorate agrees that this matter can be scoped out within GWSA-B and GWSA-C due to the very low likelihood of significant effects occurring.</p>	<p>pipeline. The required dewatering of the trench would be undertaken only as and when necessary to enable safe working and preparation for pipe installation (G132). Good practice measure G71 would provide a better understanding of the potential contamination risks in this area. A mitigation measure has also been proposed, so that dewatering would be limited in areas where abstraction/drainage of shallow groundwater may lead to a fall in groundwater levels in the vicinity of GWDTEs or adversely affect surface water quality (W11).</p> <p>Therefore, the residual significance of effect is reduced to minor. Further details can be found in Chapter 8 Water.</p>
4.2.4	Water	Groundwater – Changes to groundwater quality from migration of dissolved substances during construction (excluding historical contaminated land or landfills)	On the basis that the impact is likely to be on a small scale and unlikely to result in significant effect to groundwater quality, and also that an assessment of historical contaminated land and landfills will be included in the ES, the Inspectorate agrees that this matter can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report
4.2.5	Water	Groundwater – Changes to groundwater quality from the migration of	On the basis that the impact is likely to be on a small scale and unlikely to result in significant effect to groundwater quality, and also that an assessment of historical contaminated land and landfills will be included in the ES, the Inspectorate agrees that this matter can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report



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		suspended solids at all locations except for the unconfirmed Chalk Principal aquifer during construction		
4.2.6	Water	Groundwater – Changes to groundwater quality arising from the discharge of silt with groundwater back to the ground during construction	The Scoping Report acknowledges there is a potential impact pathway for silt, but proposes to scope out potential effects to groundwater quality arising from silt discharge on the basis that mitigation measures, such as settlement lagoons or other appropriate treatment, would be applied. Whilst the Inspectorate is aware of mitigation measures to control silt, the measures to be applied are not certain at this stage. Therefore, the Inspectorate expects the ES to include an assessment of impacts from silt discharge and any mitigation measures described and secured, as appropriate.	Runoff across the site would be controlled by the use of a variety of methods including header drains, buffer zones around watercourses, on site ditches, silt traps and bunding (G11). The contractor(s) would ensure that the time the trench is open in the vicinity of certain features, would only be as long as necessary for the installation of the pipeline. The required dewatering of the trench would be undertaken only as and when necessary to enable safe working and preparation for pipe installation (G132). Table 8.5.4 in Appendix 8.5 Potential Effects on Groundwater summarises the potential significance of effects on groundwater quality as a result of discharge to ground where there are no suitable watercourses to receive the drainage and where abstracted groundwater discharged to ground could result in changes to groundwater quality if dissimilar groundwaters are mixed. No likely significant effects were identified in this respect.
4.2.7	Water	Groundwater – Changes to groundwater quality from leaks and spills	The Inspectorate notes that the justification for scoping out all locations where trenches do not cross GWDTE is “the mitigation measures that will be used to reduce this impact will be included in the CoCP.” As the outline CoCP has not stated any specific mitigation measures that would reduce the impact, the	Table 8.5.6 in Appendix 8.5 Potential Effects on Groundwater summarises the potential significance of effects for changes to groundwater quality during installation. The assessment in Table 8.5.6 draws upon more



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		from chemicals, fuels and oils used in construction for all locations where trenches do not cross GWDTE during construction	Inspectorate cannot agree to scope this matter out of the ES. The Inspectorate would expect to see assessment of impacts from leaks and spills in the ES where significant effects are likely. The ES should also explain any mitigation measures described and secured, as appropriate.	detailed work presented in Appendices 8.3 GWDTE and 8.4 Groundwater Abstraction Assessments. Risks identified in Appendix 8.4 Groundwater Abstraction Assessments on groundwater abstractions relate to infiltration and pathway risks only. Taking into account the good practice measures set out in the REAC and listed in Section 8.4 (measures G1, G130, G121, G142 and G122), the likelihood of pollution incidents during construction is considered to be very low. Further details can be found in Chapter 8 Water.
4.2.8	Water	Groundwater – Changes to groundwater flow directions or level due to below ground structures for all locations except GWDTE during operation	Paragraph 8.4.5 of the Scoping Report discusses two elements of changes to groundwater flow direction and level due to below ground structures, one with and one without the use of gravel surround for the pipeline. The Scoping Report explains that mitigation in the form of water stops (or “stanks”) would be provided such that significant effects on all areas except GWDTE would be scoped out. The Inspectorate agrees that changes to groundwater flow direction or levels on GWDTE must be included in the ES. However, the Inspectorate is content that there is a very low likelihood of significant effects arising in other areas, the Inspectorate agrees that this potential effect can be scoped out of the ES in all other areas.	N/A Scoping Opinion agrees with Scoping Report
4.2.9	Water	Groundwater – Leaks of aviation fuel during operation within Secondary Undifferentiated aquifers and Unproductive strata and	The Scoping Report identifies that effects on groundwater quality from potential leaks during the operation of the pipeline are scoped in for most areas, although areas where there is low permeability the effect is scoped out on the basis of an absence of potential effect pathway and the receptor not being sensitive to the matter. The Inspectorate agrees that where there is no potential impact pathway and no receptor sensitive to the effect, this can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report



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		confined chalk within all GWSA areas during operation (all other aquifers are scoped in)		
4.2.10	Water	Fluvial geomorphology – Changes to morphological process and features as a results of open cut crossings during construction	<p>The Scoping Report identifies the potential for impacts to the morphological processes and features of watercourses due to watercourse crossings. This is on the basis of works would be temporary and good practice measures to be included in the CoCP. The Scoping Report acknowledges that “The reinstatement of the channel cross-section and vegetated riparian corridor would be key to ensuring that there are no significant effects following construction.”</p> <p>The Inspectorate notes that paragraph 8.4.12 appears to scope out the effects of construction at watercourse crossings on geomorphology for watercourses of any value. However, Table 8.15 and paragraph 8.4.14 refer to the scoping out of impacts on low and negligible value watercourses only.</p> <p>Given the number of watercourses to be crossed by the Proposed Development and the potential for significant effects on watercourses arising from the crossing works, the Inspectorate does not agree to scope out this impact. The Scoping Report also does not provide detail in respect of the proposed mitigation measures to provide confidence as to the efficacy of any good practice measures to control effects.</p>	Appendix 8.6 Water Framework Directive Compliance Assessment includes a review of each watercourse crossing. With the exception of the small watercourse at Coldrey Farm, all of the high and moderate sensitivity watercourses are proposed to be crossed by trenchless methods so no direct effects would result from in-channel works. The remaining watercourse crossings would be by open cut methods and where required utilising a fluming technique. Given the low sensitivity of these watercourses, combined with the good practice measures contained within the REAC, no significant effects are forecast for open cut watercourse crossings. Further details can be found in Chapter 8 Water.
4.2.11	Water	Fluvial geomorphology – Changes to morphological processes and features as a result of directionally	<p>The Scoping Report does not provide information such as the proximity of the proposed works adjacent to watercourses proposed to be crossed using trenchless methods. In the absence of this information it is unclear whether there is a potential impact pathway on the geomorphology of watercourses. Where impact pathways from the Proposed Development exist, and where a likely significant effect may occur, this should be assessed in the ES. Any mitigation and/ or design measures</p>	With the exception of the small watercourse at Coldrey Farm, all of the high and moderate sensitivity watercourses are proposed to be crossed by trenchless methods so no direct effects would result from in-channel works. Appropriate buffer zones would be established within Order Limits adjacent to identified watercourses (G39) to reduce the risk of



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		drilled crossings during construction and operation	relied upon to exclude likely significant effects on watercourses crossed using trenchless methods should be explained in the ES and appropriately secured.	construction works impinging on sensitive riparian habitat. With these measures in place no significant direct effects are anticipated from trenchless watercourse crossings. Further details can be found in Chapter 8 Water.
4.2.12	Water	Flood risk – Changes to flood risk within very low and low value receptors during construction	<p>The Scoping Report proposed to scope out an assessment of flood risk in the following areas:</p> <ul style="list-style-type: none"> • areas within the Order Limits characterised as lying within Flood Zone 1; • areas of very low risk from surface water flooding; • outside areas of reservoir flood risk; and • on an aquitard or areas assessed to present no groundwater flood risk. <p>This is on the basis of assumed no flood source and management of surface water by a competent contractor, as communicated through a CEMP for the Proposed Development. The Scoping Report does not provide detail in respect of the proposed mitigation measures to provide confidence as to the efficacy of any mitigation measures to control effects. However, on the basis that there would be a low likelihood of these areas being affected by flood risk, the Inspectorate agrees that the receptors/ areas listed within paragraph 8.4.16 can be scoped out of the flood risk assessment within the ES.</p>	N/A Scoping Opinion agrees with Scoping Report
4.2.13	Water	Flood risk – Changes to flood risk in the Order Limits during construction	<p>The Scoping Report proposes to scope out an assessment of flood risk where:</p> <ul style="list-style-type: none"> • the site lies within Flood Zone 2 and/or the 0.1% to 1% Annual Exceedance Probability (AEP) surface water flood extent; • where the depth of flooding in areas with a surface water flood risk of 3.3% annual chance (1 in 30) is less than 300mm; 	Flood Zone 2 has now been included in the Flood Risk Assessment and within the assessment in Chapter 8 Water.



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			<ul style="list-style-type: none"> • where areas of surface water flood risk are geographically isolated (i.e. not connected overland); and • areas with a limited potential for groundwater flooding and the risk of flooding from reservoirs results in less than 300mm of flood water. <p>This is on the basis of the flood source being of low sensitivity. The Inspectorate does not agree that the receptors/ areas identified in paragraph 8.4.18 can be scoped out of the ES. The Scoping Report has not provided sufficient evidence to scope out effects arising from construction in Flood Zone 2 areas. An assessment of flood risk in the above areas should be included in the ES, as supported by the proposed Flood Risk Assessment (FRA).</p>	
4.2.14	Water	Operational effects on surface waters (excluding operations at pigging stations)	The Inspectorate agrees that the operation of the Proposed Development, with the exception of management works at the pigging stations, can be scoped out of the ES as significant effects are unlikely to occur.	N/A Scoping Opinion agrees with Scoping Report
4.2.15	Water	Fluvial geomorphology during operation	<p>The Scoping Report lacks clarity with regards to which fluvial geomorphological receptors are proposed to be scoped out of the assessment. There are inconsistencies between Table 8.15, paragraph 8.4.33 and the text box adjacent to paragraph 8.4.33. The Scoping Report also identifies in paragraph 8.4.32 potential impacts on fluvial geomorphology during operation and does not provide sufficient justification as to why these matters are scoped out. Insufficient detail has been provided with regards to proposed maintenance activities which could affect fluvial geomorphology receptors.</p> <p>The ES should include an assessment of impacts to fluvial morphology receptors during operation, where significant effects are likely to occur.</p>	The pipeline would be buried beneath all watercourses crossed, with associated infrastructure sited away from watercourse banks. Operational maintenance is likely to be non-intrusive as outlined in Chapter 3 Project Description. As a result, it has been assessed that these operational impacts are unlikely to have a significant effect on any fluvial geomorphological receptors during operation.



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4.2.16	Water	Changes to flood risk during operation	The Inspectorate agrees that this matter can be scoped out of the ES given the very low likelihood of changes to flood risk and significant effects arising during operation.	N/A Scoping Opinion agrees with Scoping Report
4.2.17	Water	Location of monitoring stations	The ES should include a table or figure which depicts the location of the monitoring stations used to inform the assessment. This information will aid the reader to understand how the groundwater quality has been established in the area.	This information is included in Chapter 8 Water.
4.2.18	Water	Surface water study area	The Scoping Report has not explained why a 500m study area will be used for the assessment of surface water. Within the ES, the study area should be clearly justified and reflect the anticipated extent of the potential significant effects.	The study area for surface water is defined by a 500m buffer either side of the Order Limits. This buffer allows for the consideration of impacts on receptors outside of the Order Limits, such as impacts on the water quality of receiving water bodies and subsequent downstream reaches, sediment transportation systems and quantity for authorised abstraction. The assessment of the potential effects of the project upon flood risk has adopted a varying extent of study area to assess the impact upon all receptors.
4.2.19	Water	Location of groundwater abstractions	The appraisal of the groundwater abstraction location data should be included within the ES.	N/A Scoping Opinion agrees with Scoping Report
4.2.20	Water	Classification of GWDTE	The Scoping Report has not stated how a GWDTE is determined to be of high, medium or low groundwater dependency. A description of the methodology used to classify the GWDTE as being high, medium or low groundwater dependant should be included within the ES.	The methodology for determining GWDTE dependency is set out in Appendix 8.3 GWDTE. The methodology is based that set out within the UK Technical Advisory Group guidance 2009.
4.2.21	Water	Groundwater quality data within the GWSA-A and D	The Scoping Report states that groundwater quality data within GWSA-A and GWSA-D has been obtained from one monitoring station. The Applicant should consult with relevant consultation bodies in effort to agree the sufficiency of baseline information. The baseline assessment in the ES should be sufficiently robust	Data have been requested from the Environment Agency and statutory water undertakers. Chapter 8 Water and Appendix 8.1 Groundwater Baseline describes the sources of data used in the assessment.



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			to inform the assessment of groundwater quality across the entire GWSA.	
4.2.22	Water	Wintershill Floodplain GWDTE	The Scoping Report states that the Ford Lake Valley GWDTE is susceptible to groundwater flooding and is therefore classified as having a “high” groundwater dependency. However, Wintershill Floodplain is also within an area susceptible to groundwater flooding but has been classified as having a “low” groundwater dependency. Care should be taken to ensure that the approach to determining groundwater dependency classification is consistent in the ES.	A consistent approach to determining groundwater dependency has been adopted and is set out in Appendix 8.3 GWDTE.
4.2.23	Water	Pollution Incidents	The Scoping Report list 14 surface water pollution incidents but has not included any other details regarding these events. The ES should state when and where these pollution events occurred in order to inform the baseline information in the assessment.	Details relevant to the assessment are included in Chapter 8 Water and the associated appendices.
4.2.24	Water	Fluvial geomorphology and surface water receptors	Reference is made to 94 surface waterbodies at paragraph 8.3.79, including two canals and four lakes. The surface water sub-section from paragraph 8.3.69, which discusses water quality, only refers to rivers and watercourses. The ES should ensure that baseline data adequately describes canal and lake receptors, where they are considered and assessed in the ES.	The relevant canals and lakes are described and assessed within Chapter 8 Water.
4.2.25	Water	Geomorphologic al receptors	This Scoping Report suggests that Basingstoke Canal is considered to be of negligible value as a geomorphological receptor. However, the Inspectorate notes that low and negligible waterbodies in this table, including Basingstoke Canal, are also identified elsewhere in the Scoping Report for inclusion in the ES (for example for their ecological value). The ES should ensure that receptors are valued appropriately and cross-refer to information in other relevant aspect chapters where the same receptor(s) are considered.	The ES has assessed all water bodies within the Order Limits. Receptors could have different values in different chapters, as different criteria are used in the value assessment. This is explained within the relevant chapters. Cross referencing is used where the assessments are dependent for example GWDTE draws on ecology and groundwater information.
4.2.46	Water	Flood Risk Areas	The ES should accurately depict the baseline information. The Inspectorate notes that the Scoping Report states within paragraphs 8.3.83 and 8.3.84 the percentage of land within flood zones. Although it is implied by the figures, the Scoping Report	This information is presented in the Flood Risk Assessment (application document 7.3) and is summarised in Chapter 8 Water.



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			does not specifically address overlaps between flood zone categories.	
4.2.27	Water	Flood Risk Zone 2	The Scoping Report states that “Areas in Flood Zone 2 are considered to be of a Low sensitivity”. Table 8.13 also identifies Flood Zone 2 as being a receptor of low sensitivity/ value. The ES should justify why this is considered to be the case.	This information is presented in the Flood Risk Assessment (application document 7.3) and is summarised in Chapter 8 Water.
4.2.28	Water	Flood risk from reservoirs	The Scoping Report states that Section H is at a risk from reservoir flooding but has not stated the level of risk. The ES should include the Section H reservoir flooding risk level.	The level of risk of reservoir flooding is included within the FRA (application document 7.3) For both the construction and operational phases, the overall risk of flooding to the project from reservoir failure is considered to be Low or Very Low.
4.2.29	Water	Flood risk of sewerage	The Scoping Report states that further investigations into the flood risk from sewerage will be undertaken. The results from this further investigation should be included within the ES.	The flood risk from sewers is included within the FRA (application document 7.3).
4.2.30	Water	Surface water bodies	The Inspectorate notes that the scope of the ES in respect of the surface waterbodies to be assessed refers back to those scoped/screened into the WFD assessment, as presented in Appendix 5.1 WFD Screening and Scoping Assessment. The Inspectorate notes that Table 3.2 does not explain/justify why six surface waterbodies are scoped out of the assessment. The ES should clearly justify the scoping out of surface waterbodies and include appropriate cross-referencing to the WFD assessment, as relevant.	Appendix 8.6 WFD Compliance Assessment Report includes justification for scoping in and out water bodies. This is in line with the Planning Inspectorate Advice Note 18.
4.2.31	Water	Climate change	For the flood risk assessment, the ES should state which future climate model and flood risk allowance will be used and any assumptions and uncertainties within the climate change model. The Applicant should make effort to agree these with relevant consultation bodies. The ES should explain how the assumptions and uncertainties have informed the climate change baseline and risk assessment. As set out in the NPS EN-1 (Paragraph 4.8.6) the Applicant should take into account the potential impacts of climate change	In February 2016, the Environment Agency released ‘Flood risk assessments: climate change allowances’ guidance to support the NPPF (updated in 2018). This guidance provides allowances for the anticipated effects of climate change on fluvial flows, rainfall intensity, sea level rise and offshore windspeed and wave height. Allowances for other flood sources are not provided. This



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			using the latest UK Climate Projections (UKCP), this should include the anticipated UKCP18 projections where appropriate. The climate change model and future flood risk allowance baseline should be agreed with the relevant statutory body.	guidance has been used when developing the FRA. The methodology set out within the FRA has been agreed with the Environment Agency and the Lead Local Flood Authorities.
4.2.32	Water	Temporary and permanent duration	The Inspectorate notes the statement at paragraph 8.4.13 that “haul roads and access tracks are likely to be considered as permanent for the purposes of the assessment as they could be in place for more than one month.” The Scoping Report also describes that works associated with watercourse crossings would be of a “temporary nature”. The Applicant should ensure that duration of effects are clearly stated in the ES and applied in the context of the receptor that is being assessed.	Where the duration of the works is relied on for the purposes of the impact assessment, this is made clear in the ES. All relevant measures would be secured through the DCO process and are set out in the REAC.
4.2.33	Water	Very low value/ sensitivity	Table 8.15 states that low and very low value receptors would be scoped out. However, Chapter 8 of the Scoping Report does not identify any receptors as ‘very low value’ both within the methodology and in the baseline. The ES should make clear the value/ sensitivity of each receptor and ensure the approach applied is fully explained in the assessment methodology.	Chapter 8 Water includes the value and sensitivity of all receptors and the methodology that has been used for the assessment.
4.2.34	Water	Sustainable Drainage Strategy (SuDS)	If SuDS are to be implemented at pigging stations, the location of the SuDS and an assessment of their effectiveness at mitigating flood risk should be included within the ES.	There is no requirement for SuDS at the pigging station.
4.3.1	Historic Environment	Potential effects – archaeological remains during operation	The Scoping Report states that archaeological remains are not sensitive to any impacts during operation and so would be scoped out. The Inspectorate considers that, depending on circumstances, effects on setting could occur during operation. From the information in Chapter 3, a number of above ground elements (marker posts, a new pigging station, transformer rectifier cabinets, fenced encloses surrounding valves) are proposed as part of the Proposed Development and it is not clear how these have been assessed with respect to impacts on setting. Therefore, the Inspectorate considers that an assessment of likely significant effects on archaeological remains during	Chapter 9 Historic Environment has included an assessment on setting for the assets within the study area.



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			operation should be included in the ES, where significant effects are likely to occur.	
4.3.2	Historic Environment	Effects on setting – archaeological remains within the 300m – 1k band during construction	<p>It is noted that a Zone of Theoretical Visibility (ZTV) has not yet been established for the Proposed Development and it is not clear how this has been incorporated into the assessment of the individual assets described. Paragraph 9.4.9 refers to nine Scheduled Monuments being incorporated into the baseline, but goes on to summarise effects for eleven. This anomaly reduces confidence in the information contained in the Scoping Report. The Scoping Report also refers to temporary impacts during construction but does not provide any explanation as to how the information on construction phasing in Section 3.8 of the Scoping Report has informed this position.</p> <p>The Inspectorate does not agree that the Scoping Report provides detailed information to scope these matters out. The ES must include an assessment of likely significant effects on the setting of archaeological remains during construction, taking into account the ZTV established for the Proposed Development.</p>	Chapter 9 Historic Environment sets out the method used in the assessment. The study area was defined as the Order Limits and an area extending 500m in all directions from them. The size of the study area was informed by guidance provided by the Design Manual for Roads and Bridges - DMRB (Highways Agency <i>et al.</i> , 2007). The study area is considered appropriate to capture impacts to the setting of non-designated heritage assets which have the potential to result in significant effects. However, designated heritage assets outside of the study area but within 1km of the Order Limits have also been included in the baseline in order to identify and assess the value of those designated heritage assets the setting of which may be affected by the project.
4.3.3	Historic Environment	Physical impacts – historic buildings during construction	<p>The Scoping Report states that the route has been designed to avoid Grade I, II*, Grade II listed buildings, and non-designated historic buildings and there are no pathways by which damage could occur.</p> <p>Figure 9.1 shows a number of non-designated assets within the proposed Order Limits. Not all of these features have been assigned an asset number and accompanying description in Appendix 6 and therefore, it has not been possible to verify if any of these are historic buildings. This is a matter which should be clarified in the ES. On the basis of the information provided within the Scoping Report, it is not anticipated that the proposed works would result in significant effects arising from physical impacts beyond the Order Limits. Therefore, subject to the clarification above and depending on the outcomes of further desk based</p>	The potential for physical impacts to Historic Buildings is assessed within Chapter 9 Historic Environment. A full list of all assets is included in Appendix 9.3 Historic Environment Gazetteer.



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			assessment identified in the Scoping Report, the Inspectorate agrees to scope this matter out of the ES.	
4.3.4	Historic Environment	Effects on setting of historic buildings – all stages of the Proposed Development	<p>These paragraphs pertain to Grade I, II*, and Grade II listed buildings, and non-designated historic buildings. The summary assessment presented concludes that significant results would not occur and proposes to scope out assessment of effects on these assets.</p> <p>It is noted that a ZTV has not yet been established for the Proposed Development and it is not clear how this has been incorporated into the assessment of the individual assets described.</p> <p>The assessment refers to temporary impacts during construction, however no detailed information is provided and it is not evident how the information on construction phasing in Section 3.8 of the Scoping Report has informed this position.</p> <p>The assessment also makes reference to impacts on settings from the presence of marker posts during the operational phase but does not mention how the other above ground structures of the Proposed Development have been taken into account.</p> <p>In the absence of this information the Inspectorate does not agree to scope these matters out. The ES should include an assessment of the likely significant effects on the setting of historic buildings, for all stages of the development.</p>	Chapter 9 Historic Environment includes an assessment of the potential effects on the setting of historic buildings for all stages of the project. The permanent features are minor in nature, and in some cases (valves) are primarily below ground level with limited above ground visible. No significant effects resulting from operational impacts of these above ground permanent infrastructure elements are predicted.
4.3.5	Historic Environment	Physical impacts and impacts to setting – Conservation Areas during construction and operation	<p>The Scoping Report states that the potential impacts on the four Conservation Areas identified would not produce significant effects, and concludes to scope these matters out of the assessment. The Inspectorate considers that insufficient detail has been provided about the specific impacts anticipated. Figure 9.1 shows the locations of the Conservation Areas but there is no evidence of how the characteristics of the construction and operational phases have been taken into account in order to reach this conclusion.</p> <p>The Scoping Report also makes reference to impacts on setting from the presence of marker posts during the operational phase</p>	Appendix 9.4 Potential Effects on the Historic Environment includes an assessment of the Conservation Areas. No significant effects have been identified to Conservation Areas during construction or operation. The permanent features are minor in nature, and in some cases (valves) are primarily below ground level with limited above ground visible. No significant effects resulting from operational impacts of these above ground



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			but does not mention how the other above ground structures of the Proposed Development have been taken into account. In the absence of this information the Inspectorate does not agree to scope this matter out. The ES should assess the likely significant effects on Conservation Areas during both construction and operation of the Proposed Development.	permanent infrastructure elements are predicted.
4.3.6	Historic Environment	Potential impacts to setting – historic landscapes during operation	The Scoping Report makes reference to impacts on setting from the presence of marker posts during the operational phase. The assessment does not mention how the other above ground structures of the Proposed Development have been taken into account. However, given the information in the Scoping Report in Chapter 3 about the nature of these structures, together with their likely locations indicated in the Scoping Report and on Figure 9.1, the Inspectorate considers that any impacts to setting would be unlikely to result in significant effects. The Inspectorate agrees that this matter can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report
4.3.7	Historic Environment	Impacts during construction to archaeological remains and historic landscapes	The Scoping Report includes contradictory information in that it proposes to scope in physical impacts during construction to archaeological remains and historic landscapes over 300m from the Proposed Development. However, it also only refers to these assets as being scoped in where they within 300m of the Order Limits. The Inspectorate considers that physical impacts to these assets should be considered in the ES, over the geographical extent at which impacts could occur.	Impacts during construction to archaeological remains and historic landscapes have been considered in Chapter 9 Historic Environment.
4.3.8	Historic Environment	Methodology	The Scoping Report suggests that DMRB HA 208/07 will be used to establish the value and the significance of effects for the Proposed Development. However, other guidance is referred to in paragraph 9.3.7 with respect to the assessment of value and Table 9.4 sets out criteria applied to assessment of value based on this. The ES should clearly explain the methodology and apply guidance consistently unless where stated and justified. Reference is made to Chapter 6 for the matrix of significance of effects. This does not include receptors of 'unknown' value which	The methodology for establishing the value and magnitude has been set out in Chapter 9 Historic Environment. This is based on DMRB HA 208/07. The significance table can be found in Chapter 6 Overview of Assessment Process. There is one HLT of 'unknown' value, however it has been assessed as having no impact from the project.



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			are identified in Table 9.4. Specific methodology applicable to the aspect chapter should be included in the ES.	
4.3.9	Historic Environment	Study Area	<p>The Inspectorate notes the intent to assess impacts to receptors within 300m of the Proposed Development. There is no explanation as to why this is an appropriate study area. The Inspectorate considers that there is a risk that potential effects to sensitive cultural heritage assets, in particular known designated assets, could be missed. The Inspectorate advises that the study area for the assessment of both physical impacts and for setting should be based on the extent of the impacts.</p> <p>The Scoping Report suggests that a ZTV will be used to establish the study area for the assessment of setting and this has not yet been established for the Proposed Development. The Inspectorate considers that the ZTV (once established) is an appropriate method to establish the study area for impacts to setting. Cross-referencing to relevant information in the Landscape and Visual Impact aspect chapter and/ or supporting appendices should be included.</p>	Chapter 9 Historic Environment sets out the method used in the assessment. The study area was defined as the Order Limits and an area extending 500m in all directions from them. The size of the study area was informed by guidance provided by the DMRB (Highways Agency <i>et al.</i> , 2007). The study area is considered appropriate to capture impacts to the setting of non-designated heritage assets which have the potential to result in significant effects.
4.3.10	Historic Environment	Baseline	The asset numbers referenced in the Scoping Report (as listed in Appendix 6 and shown on Figure 9.1) are essential to understanding the baseline information. It is noted that assets of a low or negligible value and undesignated buildings are not numbered, and Conservation Areas are not labelled. The ES should clearly identify each asset and provide the information to understand the specific effects that apply to each.	The ES figures include all assets numbers and link to the information provided in Appendix 9.3 Historic Environment Gazetteer.
4.3.11	Historic Environment	Potential physical impacts	The Inspectorate considers that the ES should address impacts to drainage and groundwater movement where these may result in significant impacts to heritage assets. Cross reference should be made to the relevant assessments (eg Scoping Report Chapter 8, Water, and Chapter 11, Soils and Geology). Historic England has provided advice on this matter in their response in Appendix 2, which the Applicant should take into account.	Impacts of changes to drainage and groundwater to heritage assets have been assessed in Chapter 9 Historic Environment. There is the potential for a significant effect from changes to groundwater in relation to the archaeological remains and Grade II Listed Building at Steep Acre Farm (Assets 828 and 829). This would be mitigated by temporary sheet piling or similar for control of



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				groundwater would be put in place at the following trenchless crossings: TC 014, TC 015, TC 020, TC 023, TC 031, TC 032, TC 036, TC 037, TC 040 and TC 042, unless a detailed assessment is undertaken which demonstrates that no building or infrastructure is at risk of differential settlement. (W13).
4.3.12	Historic Environment	Potential impacts on setting	The Inspectorate considers that removal of archaeological deposits, and the longer term effects of vegetation removal in the landscape and the loss of landscape features could also result in effects on setting. The ES should consider these impacts where significant effects are likely to occur. Historic England has provided advice on this matter in their response in Appendix 2, which the Applicant should take into account.	Appendix 9.4 Potential Effects on the Historic Environment includes an assessment on setting for the relevant assets. Hedgerows, fences and walls would be reinstated to a similar style and quality to those that were removed, with landowner agreement (G93).
4.3.13	Historic Environment	Methodology – further assessment	The Scoping Report inconsistently addresses impacts to archaeological remains, historic buildings and historic landscapes suggesting that they are both relevant matters to the assessment and matters that should be scoped out. For the avoidance of doubt the Inspectorate requires these matters to be assessed in the ES. Furthermore, the Scoping Report implies that trial trenching may be ruled out of the methodology. The Inspectorate advises that it is extremely likely that trial trenching will be required in order to produce a robust assessment. Hampshire County Council has provided some advice in their consultation response with respect to the use of trial trenching and geophysical survey which the Applicant should take into account. The Applicant should aim to agree the extent of geophysical surveys with the relevant authorities.	Archaeological remains, historic buildings and historic landscapes have all been assessed in Chapter 9 Historic Environment. The statutory heritage consultees acknowledge that trial trenching would be required to design further archaeological work and that the general approach would be as set out in the Archaeological Mitigation Strategy (Appendix 9.5). It was agreed with the statutory consultees that trial trenching was not required prior to the submission of this ES.
4.3.14	Historic Environment	Summary of scope	The way in which Table 9.6 categorises receptors and their location relative to the Order Limits is not consistent with the preceding text. The Table omits mention of undesignated assets and does not always specify which development phase applies.	Summary tables have been included in Chapter 9 Historic Environment that match and support the text.



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			This undermines confidence in the accuracy of the summary information. The Inspectorate considers that a summary table, which accurately corresponds to the text regarding matters taken into the assessment is useful and should be included in the ES.	
4.4.1	Landscape and visual	Impact on landscape setting of Bramdean House, and Frimley Park (both Grade II Registered Park and Gardens) during construction	This Scoping Report proposes to scope this matter out on the basis that the pipeline route does not run through the landscape setting of the designated assets, and views are screened by existing development, and therefore there is no impact pathway. The Inspectorate agrees that impacts are unlikely and that the Landscape and Visual Impact Assessment (LVIA) is justified. This matter can be therefore scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report
4.4.2	Landscape and visual	Impact on landscape setting of Hinton Ampner House and Gardens (National Trust) during construction	The Scoping Report proposes to scope this matter out of the ES due to distance from the Proposed Development to the designated asset, and that the land crossed by the Proposed Development does not form part of the landscape setting. The Scoping Report states that visual effects remain possible. The Inspectorate agrees that the decision to scope out impacts to setting of these receptors from the LVIA is justified. It is understood that visual effects may still apply, subject to confirmation upon the extent of vegetation loss and the establishment of the ZTV for the Proposed Development.	N/A Scoping Opinion agrees with Scoping Report Consideration of visual effects from Hinton Ampner House and Gardens have been assessed under Potential Visual Effects (Representative Viewpoint 17).
4.4.3	Landscape and Visual	Impact on the landscape setting of Grade II listed buildings further than 300m of the Project during construction	The Scoping Report proposes to scope this matter out of the ES, as the landscape setting of Grade II listed buildings are usually geographically restricted to the immediate surroundings. The Inspectorate considers that the analysis of views to and from these assets should be based on the extent of potential impacts, and that the application of an arbitrary distance is not the most appropriate approach. Therefore, in the absence of evidence to support this approach the Inspectorate cannot agree to scope	The impacts on all listed buildings within 1km of the Order Limits have been assessed in Appendix 9.4 Potential Effects on the Historic Environment.



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			out this matter and the potential for significant effects should be assessed in the ES.	
4.4.4	Landscape and Visual	Landscape impacts relating to Ancient Woodland and Tree Preservation Orders (TPO) further than 15m from the Order Limits, during construction	The Scoping Report proposes to scope this matter out of the ES as there would be no direct impact on roots and branches beyond 15m, and there would be no impact pathway between the route and the designated asset beyond this distance. The Inspectorate is content to scope out the assessment of landscape impacts to Ancient Woodland and TPO beyond 15m of the Order Limits. The Inspectorate agrees there is unlikely to be significant effects in this regard. However, the Applicant should take care to ensure that all relevant areas of Ancient Woodland are identified. The Inspectorate has been made aware that the Natural England's Ancient Woodland Inventory does not identify ancient woodland areas that are smaller than 2ha. In addition, the Inspectorate considers that any undesignated mature trees or areas of woodland that could be affected by the Proposed Development should be assessed in terms of their contribution to the landscape (as noted in the Scoping Report in relation to Common Land and Open Access Land), where significant effects are likely to occur.	Ancient Woodland under two hectares has been identified. Chapter 7 Biodiversity and Appendix 7.3 Ancient Woodland Factual Report details how this has been identified and where. The impacts on trees has been informed by an arboricultural assessment and has been taken into account within Chapter 10 Landscape and Visual.
4.4.5	Landscape and Visual	Landscape impacts during construction on areas of Common Land and Open Access land that are not physically affected by the Project	The Scoping Report proposes to scope this matter out of the ES stating that there is no impact pathway between the Proposed Development and the identified receptors due to no loss of vegetation. The Inspectorate agrees with the justification provided in the Scoping Report and this matter can be scoped out of the ES. The Inspectorate notes from the Scoping Report that visual effects would still potentially apply.	N/A Scoping Opinion agrees with Scoping Report. Visual effects have been addressed through the selection of Representative Viewpoints assessed within Chapter 10 Landscape and Visual. The selection of Representative Viewpoints took into consideration areas of Common Land and Open Access land that would not be physically affected by the Project, such as Representative Viewpoints at Beacon Hill National Nature Reserve (NNR) and within areas of Chobham Common not directly affected by the project.



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4.4.6	Landscape and Visual	Impact on the landscape setting of Lightwater or Bedfont Lakes Country Parks	<p>The Scoping Report proposes to scope this matter out of the ES, stating that as they will not be physically affected, there is no impact pathway between the Proposed Development and the designated assets.</p> <p>While Table A3.3.1 of Appendix 3 of the Scoping Report proposes a few representative viewpoints at these features, these have not been subject to confirmation (including through application of the ZTV). The Inspectorate advises that the Applicant assess whether visual impacts could result in significant effects to landscape. Therefore this matter should be assessed in the ES.</p>	<p>Lightwater Country Park and Bedfont Lakes Country Park are situated approximately 500m north and 400m east of the Order Limits respectively. Neither site would be physically affected by the project. Intervening tree cover would screen views towards the route from within the parks as assessed by Representative Viewpoints 47 and 63. The magnitude of impact for both sites would be no change and the significance of effect would be negligible at all assessment timeframes.</p>
4.4.7	Landscape and Visual	Assessment of impacts on Green Belt and green space as identified within Local Plans	<p>The Scoping Report proposes to scope this matter out of the ES as the openness of the Local Plan designations are not sensitive to the temporary impact of construction, and the limited size and number of above ground structures. The Inspectorate agrees that significant landscape effects on these features are unlikely and this matter can be scoped out of the ES. The Inspectorate notes from the Scoping Report that visual effects would still potentially apply.</p>	<p>N/A Scoping Opinion agrees with Scoping Report</p> <p>Visual effects have been addressed through the selection of Representative Viewpoints assessed under Potential Visual Effects, which took into consideration the Green Belt and green space as identified within Local Plans. Representative Viewpoints 49 – 63 are located within the Green Belt</p>
4.4.8	Landscape and Visual	Landscape and visual effects during operation	<p>The Inspectorate does not agree that this matter can be scoped out of the assessment. The Inspectorate considers that the landscape and visual impact of vegetation loss during construction will still be relevant during operation as reinstatement and mitigation planting takes time to become fully established. There will also be considerable above ground assets during the operational phases of the Proposed Development including the pigging station proposed near Boorley Green, which will include artificial lighting as well as the structures themselves. However, the Scoping Report suggests that this matters will be assessed using the year 15 design scenario. The Inspectorate considers that this would be an acceptable approach to assess this matter.</p>	<p>Operational landscape and visual effects would be limited because the pipeline would be underground, and above ground features including the proposed valves, pressure transducer chamber and the pigging station would be small in scale. The full assessment can be found in Chapter 10 Landscape and Visual.</p>



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4.4.9	Landscape and Visual	Study Area used for the assessment will be 1km from the proposed Order Limits	It is welcomed that the effect on longer distance views will be considered by selecting viewpoints from the ZTV up to 5km from the proposed Order Limits. Viewpoints should be agreed with relevant local authorities. The Inspectorate advises that the study area should be based on the extent of potential impacts, and that the ZTV will be essential in selecting viewpoints.	Landscape officers at local planning authorities within administrative areas that would be crossed by the project, including the SDNPA, were contacted regarding the suitability of proposed Representative Viewpoints. Chapter 10 Landscape and Visual sets out the methodology used for the selection of viewpoints. A Zone of Theoretical Visibility (ZTV) was generated as a tool to support the selection of Representative Viewpoints.
4.4.10	Landscape and Visual	Thames Basin Lowlands National Character Area (NCA)	The Scoping Report indicates that Thames Basin Lowlands NCA falls within the 1km buffer of the Order Limits. However, the Scoping Report only considers NCA within the Order Limits and does not justify this approach, which appears inconsistent given that this NCA is identified within the 1km Study Area. If significant effects are likely on the landscape character of Thames Basin Lowlands NCA, then the impact on this NCA should be included within the scope of the LVIA.	Landscape impacts on the Thames Basin Lowlands NCA has been included within Chapter 10 Landscape and Visual for completeness. However, there would be no significant effects on this character area because it is situated approximately 700m from the Order Limits, and it would not be physically affected by the project;
4.4.11	Landscape and Visual	Special Qualities of the South Downs National Park (SDNP) and areas of local Landscape Importance	The ES should make reference to the full list of the SDNP Special Qualities. The ES should also make reference to the 2010 Government circular on English National Parks and the Broads ³ . The Applicant should make efforts to agree the approach to assessing impacts on the SDNP with South Downs National Park Authority. Runnymede Borough Council has provided advice in relation to areas of Landscape Importance in the relevant Local Plan (see Appendix 2 to this Opinion), which the Applicant should also take into account.	Relevant documents and guidance have been used to undertake the assessment and this has been addressed within Appendix 2.2 Regional and Local Planning Policy. Runnymede Borough Council raised a concern within their statutory response to the Scoping Report (Esso, 2018) that Representative Viewpoints 55 and 56 would not take into account the loss of trees at Dumsey Stump at Chertsey Meads, south of the Thames, and suggested the viewpoints should be amended to account for this. However, trees would largely be retained at Dumsey Stump through the application of good practice measures as described within



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				Chapter 10 Landscape and Visual. Therefore, the viewpoints were not amended.
4.4.12	Landscape and Visual	Embedded Design Measures	<p>The ES should describe any embedded mitigation relied upon within the assessment including mitigation to address impacts at construction compound locations.</p> <p>The SDNP Authority have provided advice in their consultation response around the siting of construction compounds, to which the Applicant should have regard when arriving at embedded mitigation measures (see Appendix 2 to this Opinion).</p>	<p>Details of embedded design measures and the good practice measures assumed are clearly set out within Chapter 10 Landscape and Visual within the section called Design and Good Practice Measures.</p> <p>The siting of temporary construction compounds, construction logistics hubs and the permanent valves, pressure transducer chamber and the pigging station was considered through the design development process to reduce landscape and visual effects. The approach to the siting of construction compounds is set out in Chapter 4 Design Evolution.</p>
4.4.13	Landscape and Visual	Effects on Landscape Character	<p>The assessment of effects on landscape character should be informed by relevant Landscape Character Assessments (eg Hampshire Integrated Character Assessment, South Downs Integrated Landscape Character Assessment, and Surrey Landscape Character Assessment) and take into account drivers for change and key sensitivities.</p>	<p>The assessment of landscape sensitivity and effects on landscape character is based on published LCA data. Key sensitivities and drivers for change are incorporated in the assessment in Chapter 10 Landscape and Visual.</p>
4.4.14	Landscape and Visual	International Dark Sky Reserve and impacts of lighting	<p>The Scoping Report makes reference to possibly requiring night-time working and to lighting around above permanent ground structures during operation. The ES should assess impacts from lighting on the International Dark Sky Reserve designation within the National Park and on any other sensitive receptors which could be subject to significant effects.</p>	<p>Details relating to lighting are included within Chapter 3 Project Description. Lighting would be of the lowest luminosity necessary for safe delivery of each task. It would be designed, positioned and directed to reduce the intrusion into adjacent properties and habitats. (G45) Temporary lighting would affect the dark skies in rural locations away from settlements and major roads. However, effects within the SDNP would be restricted to the temporary construction period.</p>



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				<p>The study area does not coincide with the Dark Sky Core and the closest darkest skies area within the South Downs is approximately 5km to the east of the Order Limits at Old Winchester Hill. Given the distance to this particular area, and the short term and temporary nature of lighting effects, lighting would not cause potential effects of significance on the SDNP including on the darkest skies.</p> <p>The impacts caused by temporary lighting have been incorporated within the assessment of Representative Viewpoints within Chapter 10 Landscape and Visual.</p>
4.5.1	Soils and Geology	Soils: Loss of Best and Most Versatile (BMV) land during construction	The Scoping Report proposes to scope this matter out of the ES due to the loss of BMV land being temporary and the land being restored back to the landowner's preference. As the Scoping Report has not included a definition of 'temporary' or information regarding how the land will be restored, the Inspectorate is not confident that no significant effects will occur from the loss of BMV land and an assessment of the effects arising from the loss of BMV land during construction should be included within the ES, where significant effects are likely to occur.	An assessment of the effects of the loss of BMV soils has been included in Chapter 11 Soils and Geology. As the ALC grades of the soils are unlikely to be reduced and any damage to peat soils is likely to be minor and short term, which would result in a minor adverse impact. This can be considered a temporary impact because the quality of the soils should recover over the short term following adherence to the good practice measures. Short term in this context is defined as less than five years, but the quality of the majority of soils is likely to recover over a much shorter period considering both the good practice mitigation measures and the generally short period over which soils would be temporarily displaced.
4.5.2	Soils and Geology	Soils: Deterioration of soil quality and of	The Scoping Report proposes to scope these matters out of the ES due to the low likelihood of significant effects occurring based on the implementation of the mitigation measures described	The REAC sets out the good practice measures for handling soil. These have been assumed when assessing effects to soil. No



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		soil properties through handlings and storage and deterioration of sensitive soils during construction	within Chapter 4 and the outline CoCP. The mitigation measures state a bespoke soil management strategy and a method statement will be produced which will outline the soil stripping, handling, storage and reinstatement. However, the Scoping Report has not provided sufficient detail to provide confidence that soil will be appropriately managed during the construction phase such that no significant effects are likely to occur. These matters should be assessed within the ES, where significant effects are likely to occur. Any proposed mitigation measures should be described and appropriately secured.	significant effects have been identified to soil and no mitigation is proposed. Further details can be found in Chapter 11 Soils and Geology.
4.5.3	Soils and Geology	Soils: Deterioration of soils important for sensitive ecological receptors during construction	This matter has been scoped out of Soils and Geology assessment on the basis it has been considered within Biodiversity aspect chapter. The Inspectorate does not consider that this matter has been sufficiently addressed within the Biodiversity aspect chapter and therefore, does not agree that this matter can be scoped out of the ES. The ES should assess this matter, with appropriate cross reference between the Soils and Biodiversity Chapters as required.	The effects of potential soil deterioration on ecological receptors has been assessed in Chapter 7 Biodiversity with a cross reference in Chapter 11 Soils and Geology. The contractor(s) would produce a Soil Management Plan. In developing the plan, the contractor would take note of the principles within the guidance "Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Department for Environment, Food and Rural Affairs, 2009)", and "Good Practice Guide for Handling Soils (Ministry of Agriculture, Fisheries and Food, 2000)". The Soil Management Plan would include, but not be limited to: specification of maximum storage periods, angles and heights of soil stockpiles; reference to published soil types; specification for where a soils watching brief may be required; controls on use of construction machinery in areas where soils have not been stripped; and specification of the role of the Suitably Experienced Person (G150).



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4.5.4	Soils and Geology	Soils: Land contamination and all other effects during operation	<p>Having considered the nature of the Proposed Development and the information provided in the Scoping Report, the Inspectorate agrees that significant effects during operation are unlikely. However, there remains a low risk of fuel leakage impacts to soils during operation. Significant effects could arise, particularly in the case of sensitive soils being affected by uncontrolled leaks. The Inspectorate would expect to see consideration of leaks and spills in the ES and any mitigation measures described and secured, as appropriate.</p> <p>It is also unclear how the operational of the Proposed Development may affect field drainage regimes and the potential impact this could have on soils. The ES should state whether changes to field drainage regimes will have a significant impact on soils with appropriate cross reference to the relevant water section.</p> <p>In the absence of information about appropriate measures, it is considered that this matter should be assessed within the ES.</p>	<p>Chapter 3 Project Description and Chapter 4 Design Evolution describe the design measures in place to reduce the risk of leaks and spills. Chapter 14 Major Accidents assesses the effects associated with a leak. Embedded design measures and good practice measures are set out in the REAC. With these measures in place there are no anticipated significant effects.</p> <p>Land drains would be reinstated to maintain the integrity of pre-existing land drainage patterns. Further details can be found in Chapter 3 Project Description.</p>
4.5.5	Soils and Geology	Geology: Sites of geological importance and geology during construction and operation	<p>Given that no designated sites of geological importance or potential contamination pathways that may affect sites of geological importance have been identified within the assessment study area, the Inspectorate agrees that this matter can be scoped out of the impact assessment within the ES.</p>	<p>N/A Scoping Opinion agrees with Scoping Report. However, since the Scoping Report was submitted a site of geological importance was identified (Water Lane) therefore an assessment has been undertaken in Chapter 11 Soils and Geology.</p>
4.5.6	Soils and Geology	Minerals: Effects on minerals during construction	<p>The Scoping Report states that the effects on minerals during construction can be scoped out of the assessment due to being managed through agreements with operating companies. However, no evidence of agreement with operating companies has been included within the Scoping Report. In addition, the Scoping Report identifies gaps in the baseline information, and the Inspectorate advises that the Applicant forms the most robust baseline possible before excluding the possibility of effects. Surrey County Council and Runnymede Borough Council have provided information on existing mineral sites within their responses in Appendix 2. In light of these points, the</p>	<p>The information provided by Surrey County Council and Runnymede Borough Council has been reviewed and incorporated into Chapter 11 Soils and Geology.</p> <p>Where the route passes through areas where there are active Environmental Permits (for example authorised landfill sites), the contractor(s) would work with the permit holder to comply with the permit requirements (G75).</p>



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			Inspectorate does not agree that this matter can be scoped out of the impact assessment and therefore, an assessment must be included within the ES.	
4.5.7	Soils and Geology	Contaminated sites of low and negligible sensitivity/ source potential during construction	The Inspectorate agrees that this matter can be scoped out of the impact assessment within the ES due to the very low likelihood of significant effects occurring from contaminated sites of low sensitivity/ source potential.	N/A Scoping Opinion agrees with Scoping Report
4.5.8	Soils and Geology	Aquifers	The Scoping Report states that aquifers will be assessed within the Water aspect chapter of the ES and acknowledges their role in the source-pathway-receptor model used in the land contamination assessment. The Inspectorate agrees that this is an appropriate approach and that this matter can be suitably assessed elsewhere within the ES; however, the Applicant should ensure cross reference is made to the Water chapter where appropriate.	N/A Scoping Opinion agrees with Scoping Report
4.5.1a	Soils and Geology	Historical potentially contaminated sites: Industrial estates	The Scoping Report has not provided information on the industrial estates drainage, catchment areas or whether underground tanks have been used. Without this information, the Scoping Report has not sufficiently justified the industrial estate classification as low risk. The Inspectorate does not agree that this matter can be scoped out of the ES. The ES should include an assessment of impacts from former industrial estates where significant effects are likely to occur.	Additional details have been included in Appendix 11.1 Soils and Geology Supporting Information.
4.5.2a	Soils and Geology	Land contamination sites	Data regarding the location of landfills, registered waste transport sites, and other land contamination sites of potential significant was not received by the Applicant in time to be incorporated into the Scoping Report. This ES should incorporate any such data and assess any likely significant effects. Surrey County Council and Runnymede Borough Council have provided information on known landfill sites within their	Additional details have been included in Appendix 11.1 Soils and Geology Supporting Information.



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			responses in Appendix 2, which the Applicant should take into account within the assessment.	
4.5.3a	Soils and Geology	Land contamination baseline	The Inspectorate notes that paragraph 8.3.78 of the Water aspect chapter states that several pollution events, including 1 major and 2 significant pollution events have affected surface waters. In addition, the Inspectorate notes the reference to a damaged multiproduct line at paragraph 11.3.56. The ES should include information on pollution events and contaminated land in the baseline, such as those identified above, and assess any likely significant effects related to soils.	Information on pollution events have been reviewed and included in Appendix 11.1 Soils and Geology Supporting Information.
4.5.4a	Soils and Geology	Conceptual site model	The Scoping Report states there is not enough information at this stage to develop conceptual site models for individual sites potentially affected by contamination. It is unclear whether the Applicant intends to produce a conceptual site model for the ES. The Inspectorates notes that within the CLR:11 guidance stated to be used for the assessment of soils and geology, conceptual models are used to identify potential pollution pathways and forms a main part of the risk assessment. The assessment in the ES should be underpinned by relevant baseline information, including where necessary, conceptual site models.	Conceptual Site Models have been completed as part of the desk top study for Chapter 11 Soils and Geology. This is based on the CLR:11 guidance.
4.6.1	Land Use	Temporary loss of access and boundary features to residential property, community land and facilities and commercial property and land. Temporary loss of access and boundary	The Scoping Report proposes that these matters be scoped out on the basis that they will be managed through mitigation measures described in Chapter 4 and the CoCP. However, the mitigation measures presented in the Scoping Report lack sufficient detail. In the absence of detailed mitigation measures, the Inspectorate does not agree that this matter can be scoped out of the ES. Where significant effects are likely to occur this should be assessed in the ES.	The REAC sets out the good practice measures for temporary loss of access, loss of boundary features or disruption to livestock water supply and field drainage systems. Implementation of the good practice measures was assumed when assessing effects on land use. No significant effects have been identified for these features and no mitigation is proposed. Further details can be found in Chapter 12 Land Use.



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		features, disruption to livestock water supply and field drainage systems to agricultural land. Temporary loss of access and boundary features to development land.		
4.6.2	Land Use	Effect of waste production on commercial landfill and waste facility sites in the South East	Based on the information in the Scoping Report on the baseline conditions and the characteristics of the Proposed Development in terms of waste arising, the Inspectorate agrees that there are unlikely to be significant effects and that this matter can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report
4.6.3	Land Use	Future sterilisation of land allocations and impact on land use during operation	Having regard to the characteristics of the Proposed Development, the Inspectorate agrees that impacts resulting from the future sterilisation of land allocations are unlikely to generate significant environmental effects. However, the Inspectorate also notes the intention to undertake a cumulative impact assessment in accordance with the Inspectorate's Advice Note Seventeen, which would include reasonably foreseeable developments.	N/A Scoping Opinion agrees with Scoping Report
4.7.1	People and Communities	Employment: Effects on employment during construction period	Paragraph 13.4.8 explains that the Proposed Development would not have an effect on the existing labour market and that the Proposed Development would serve to safeguard employment rather than generate employment opportunities. The Inspectorate has had regard to the characteristics of the	N/A Scoping Opinion agrees with Scoping Report



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			Proposed Development and agrees that significant effects are unlikely and that this matter can be scoped out of the ES.	
4.7.2	People and Communities	Employment: Operational effects in respect of employment	The Inspectorate understands that general operations of the Proposed Development would be undertaken by an existing workforce with limited indirect and induced employment opportunities. Accordingly, the Inspectorate agrees that significant effects are unlikely and that this matter can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report
4.7.3	People and Communities	Economy: Effects on local and national supply chains during construction	The Inspectorate has had regard to the characteristics of the Proposed Development and agrees that significant effects on local and national supply chains during construction are unlikely and that this matter can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report
4.7.4	People and Communities	Economy: Effects on local and national supply chains during operation	The Inspectorate has had regard to the characteristics of the Proposed Development and agrees that significant effects on local and national supply chains during operation are unlikely and that this matter can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report
4.7.5	People and Communities	Tourism receptors: Effects on tourism receptors (disruption, community severance and change in access) during operation	The pipeline would be situated underground and there is not expected to be any potential for significant effect on tourism receptors, or on associated visitor behaviour during the operation of the pipeline. The Inspectorate considers that significant effects are unlikely and that these matters could be scoped out of the people and communities assessment.	N/A Scoping Opinion agrees with Scoping Report
4.7.6	People and Communities	Accommodation: Operational effects on worker accommodation	The Inspectorate understands that the replacement pipeline would be operated by an already existing workforce, and that most workers would already be residing within local communities.	N/A Scoping Opinion agrees with Scoping Report



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			Accordingly, the Inspectorate agrees that significant effects are unlikely and that this matter can be scoped out of the ES.	
4.7.7	People and Communities	Tourism sector: Effects on the tourism sector during operation	The Inspectorate has had regard to the characteristics of the Proposed Development and agrees that significant effects on the tourism sector during operation are unlikely and this matter can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report
4.7.8	People and Communities	Effects on communities: Effects from disruption in rural and urban areas (air quality, traffic, noise, vibration and visual impacts) on communities during operation	The Inspectorate has had regard to the characteristics of the Proposed Development and agrees that significant effects from disruption in rural and urban areas (air quality, traffic, noise, vibration and visual impacts) on communities during operation are unlikely and this matter can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report
4.7.9	People and Communities	Effects on communities: Effects from disruption during operation in rural and urban areas (including schools)	The Inspectorate has had regard to the characteristics of the Proposed Development and agrees that significant effects on from disruption during operation in rural and urban areas (including schools) are unlikely and that this matter can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report
4.7.10	People and Communities	Effects on communities: Effects on community severance and in changes in access to local communities in	The Inspectorate considers that impacts to community severance, changes in access and disruption to tourism receptors are likely to be temporary occurring during construction. The Inspectorate does not anticipate that these impacts will result in significant effects and agrees that this matter can be scope out of the ES.	N/A Scoping Opinion agrees with Scoping Report



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		rural or urban areas during operation		
4.7.11	People and Communities	Public safety: effects on public safety during construction	The Inspectorate has had regard to the characteristics of the Proposed Development and agrees that significant effects to public safety during construction are unlikely and this matter can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report
4.7.12	People and Communities	Public Safety: Effects on public safety during operation	The Inspectorate has had regard to the characteristics of the Proposed Development and agrees that significant effects to public safety during operation are unlikely and this matter can be scoped out of the ES. The Inspectorate notes that risks of major accidents are discussed in Chapter 15 of the Scoping Report and therefore comments on this matter are provided in Table 4.9 of the Opinion below.	N/A Scoping Opinion agrees with Scoping Report
4.7.13	People and Communities	Air quality effects (including dust) on tourism and communities during construction and operation	The Inspectorate does not agree that effects associated with air quality changes due to construction can be scoped out at this stage. The Scoping Report currently does not provide detailed information regarding the location and value of sensitive receptors that could be within or adjacent to the Proposed Development route and could potentially be affected by dust deposition, nor does it entirely confirm the risk from construction generated dust associated with the Proposed Development. The ES should clearly identify the risk of construction dust and the sensitivity of tourism and communities receptors for the Proposed Development, where significant effects are likely to occur. The mitigation relied upon in the assessment should be specified in the ES and appropriately secured.	These issues have been addressed within Appendix 13.2 Air Quality Technical Note. With good practice measures in place (as set out in the REAC) no significant effects have been identified. As a result, air quality effects have not been considered in the assessment of 'disruption' to communities and tourism as outlined in Chapter 13 People and Communities.
4.7.14	People and Communities	Study area	Chapter 13 of the Scoping Report does not explain why a buffer zone of 500m from the Order Limits has been considered in the assessment. Although the Inspectorate notes the further statement at paragraph 13.3.3 which indicates that key receptors would be considered beyond this distance. Justification for	The study area for people and communities, has been determined to be the spatial area which extends 500m from the Order Limits based on professional judgement. This study area is considered sufficient to encompass all



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			determining this distance should be provided in the ES. The Applicant should make effort to agree the study area with relevant consultation bodies. It should reflect the extent of the anticipated impacts.	potential effects of relevance to sensitive receptors.
4.7.15	People and Communities	Study area	Greater London Authority (GLA) data has not been included in the baseline. A short distance of the Proposed Development would be located within the administrative area of the GLA and it has been determined that including GLA data would not add value to the assessment and has been omitted from the baseline. This approach should be justified, and agreement to this approach should be provided by the relevant consultation bodies.	Given that only 60m (an area encompassing approximately 0.57ha) of the project is situated within the boundary of the GLA administrative area, and the similarities in the socio-economic environment in respect to Hampshire and Surrey, baseline information specific to the GLA area is not outlined in the People and Communities assessment. This is due to its inclusion having the potential to disproportionately skew relevant baseline information on which the impact assessment relies.
4.8.1	Health Impacts	Disruption to green space and nature during construction: Visual amenity during and beyond construction, resulting in reduced use of green space for physical activity and stress relief	The Scoping Report proposes to scope out an assessment of the potential impact on visual amenity during and beyond construction, resulting in reduced use of green space for physical activity and stress relief on the basis that mitigation measures would be sufficient to mitigate any effects on health. However, no such mitigation measures are presented in the Scoping Report. In the absence of detailed evidence to support this assertion, the Inspectorate does not consider that detailed information has been provided to justify a scoping out of the assessment at this stage. The ES should therefore include an assessment of these matters, where significant effects are likely to occur.	Appendix 13.4 Human Health Technical Note assesses the potential impacts of the project on health. Given the scale, duration and nature of construction and the likely potential landscape and visual effects (i.e. disruption to green space and nature) being largely localised during this period, significant impacts on human health are not anticipated. The Priority Open Space Assessment (application document 7.1) includes details on the likely potential effects on individual open spaces as a result of constructing the project.
4.8.2	Health Impacts	Disruption to green space and nature during construction: Construction	The Scoping Report proposes to scope out these matters out on the basis that people have access to alternative areas of green space. The Scoping Report does not provide detailed evidence to support this assertion. The Inspectorate does not consider that detailed information has been provided on the existence of	Appendix 13.4 Human Health Technical Note assesses the potential impacts of the project on health. Given the scale, duration and nature of construction and the likely potential landscape and visual effects (i.e. disruption to



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		activities resulting in the loss of green space used for physical activity and stress relief	alternative green space to justify a scoping these matters out of the ES. The ES should therefore assess these matters where significant effects are likely to occur.	green space and nature) being largely localised during this period, significant impacts on human health are not anticipated. The Priority Open Space Assessment (application document 7.1) includes details on the likely potential effects to individual open spaces as a result of constructing the project.
4.8.3	Health Impacts	Disruption to green space during operation	The Inspectorate has had regard to the characteristics of the Proposed Development and agrees that significant effects from disruption to green space during operation are unlikely and this matter can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report
4.8.4	Health Impacts	Effects on communities: Disruption to communities causing decreased social cohesion and associated negative effects	The Scoping Report proposes to scope out an assessment of health effects occurring as a result of disruption to communities causing decreased social cohesion and associated negative effects on the basis that there is no direct impact pathway. While an assessment of such disruption will be presented in the People and Communities chapter of the ES, it will not address likely significant effects from a health perspective. In the absence of detailed evidence to support this assertion, the Inspectorate does not consider that detailed information has been provided to justify a scoping out these matters. The ES should therefore fully assess the matters where significant effects are likely to occur.	Appendix 13.4 Human Health Technical Note assesses the potential impacts of the project on health. Chapter 13 People and Communities considers and addresses the issue of 'community cohesion'. Given the scale, duration and nature of construction and absence of significant adverse effects in respect to disruption on communities, no significant adverse effect is expected regarding community cohesion.
4.8.5	Health Impacts	Effects on communities: Health effects on communities during operation	The Inspectorate has had regard to the characteristics of the Proposed Development and agrees that significant effects on communities during operation are unlikely and this matter can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report
4.8.6	Health Impacts	Traffic, Transport, Connectivity, Severance and Physical Injury from Accidents:	The Inspectorate has had regard to the information provided in the Scoping Report and the characteristics of the Proposed Development and agrees that significant effects from to human health from changes to traffic and transport in rural areas are unlikely and this matter can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report



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		Health assessment of traffic and transport on human health in rural areas		
4.8.7	Health Impacts	Traffic, Transport, Connectivity, Severance and Physical Injury from Accidents: Health effects as a result of increased congestion, driver stress and severance in urban areas	The Scoping Report proposes to scope out these matters but limited information is provided in the Scoping Report on the mitigation measures referenced. In the absence of detailed evidence to support this assertion, the Inspectorate does not consider that detailed information has been provided to justify a scoping out these matters. The ES should therefore fully assess the matters where significant effects are likely to occur.	These issues have been addressed in Appendix 13.4 Human Health Technical Note and also within the Transport Assessment (application document 7.4) No significant effects have been identified on health relating to traffic and transport.
4.8.8	Health Impacts	Traffic, Transport, Connectivity, Severance and Physical Injury from Accidents: Health effects of traffic during operation	The Inspectorate has had regard to the characteristics of the Proposed Development and agrees that significant effects to health from traffic during operation are unlikely and this matter can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report
4.8.9	Health Impacts	Soil contamination: Health effects resulting from a build-up of ground gases	The Scoping Report proposes to scope out these matters, however, limited information on such mitigation measures is presented in the Scoping Report. In the absence of detailed evidence to support this assertion, the Inspectorate does not consider that detailed information has been provided to justify a	These issues have been addressed in Appendix 13.4 Human Health Technical Note and also within Chapter 11 Soils and Geology. No significant effects have been identified on health relating to soil or land contamination.



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		and/ or soil contamination	scoping these matters out. The ES should therefore assess these matters where likely significant effects occur.	
4.8.10	Health Impacts	Soil contamination: Health effects relating to soil contamination effects during operation	The Inspectorate has had regard to the characteristics of the Proposed Development and agrees that significant effects to from soil contamination during operation are unlikely and this matter can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report
4.8.11	Health Impacts	Noise and vibration: Health effects as a result of noise disruption, such as sleep disturbance	The Scoping Report proposes to scope out these matters, however, limited information on mitigation measures relied upon is presented in the Scoping Report. In the absence of detailed evidence to support the mitigation measures, the Inspectorate does not consider that detailed information has been provided to justify a scoping out of the assessment at this stage. The ES should therefore assess these matters where likely significant effects occur.	Pigging stations allow the insertion and withdrawal of pipeline inspection gauges (PIGs) into and out of the pipeline. These facilities are essentially sections of pipework that enable PIGs to enter and exit the main pipeline. As such, they do not contain any machinery or plant or any other moving parts and are not sources of environmental noise or vibration. The movement of PIGs along buried pipelines, and the entry or exit of PIGs at pigging stations, is a quiet activity with no noticeable noise above ground.
4.8.12	Health Impacts	Noise and vibration: Noise and vibration health effects during operation	Whilst the Inspectorate agrees that the majority of the operational development would not generate significant noise and vibration, the Inspectorate notes that the Scoping Report does not provide a description of the likely works to upgrade and modernise the existing pumping station at Alton, including any anticipated noise and vibration. It also does not describe the likely noise and vibration emissions and characteristics for the new pigging station at Boorley Green. The ES should describe the noise and vibration emissions and characteristics of these elements during operation. Where significant changes to noise and vibration could arise, and where there are sensitive human or ecological receptors that could be affected by such changes, the ES should provide an assessment, where significant effects are likely to occur.	The project also includes installing a single replacement external pump near to the existing pumps at Alton Pumping Station. Appendix 13.3 Noise and Vibration Technical Note concludes that that the operation of the proposed pump would not give rise to adverse noise or vibration effects.
4.8.13	Health Impacts	Water: Health effects during	The Scoping Report proposes to scope out an assessment of health effects from contaminants of groundwater entering public	These issues have been addressed in Appendix 13.4 Human Health Technical Note



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		construction from contaminants of groundwater entering public water supplies	water supplies on the basis that mitigation measures would be sufficient to mitigate any effects on health. However, limited information on such mitigation measures is presented in the Scoping Report. In the absence of detailed evidence to support this assertion, the Inspectorate does not consider that detailed information has been provided to justify a scoping out of the assessment at this stage. The ES should assess the matter where significant effects are likely to occur.	and also within Chapter 8 Water. No significant effects have been identified on health relating to the water environment.
4.8.14	Health Impacts	Water: Potential health effects during construction from flooding such as stress	The Scoping Report proposes to scope out an assessment of health effects from flooding such as stress on the basis that mitigation measures would be sufficient to mitigate any effects on health. However, limited information on such mitigation measures is presented in the Scoping Report. In the absence of detailed evidence to support this assertion, the Inspectorate does not consider that detailed information has been provided to justify a scoping out of the assessment at this stage. The ES should therefore assess the matter where significant effects are likely to occur.	These issues have been addressed in Appendix 13.4 Human Health Technical Note and also within Chapter 8 Water. No significant effects have been identified on health relating to the water environment.
4.8.15	Health Impacts	Water: Health effects from contaminants of groundwater during operation entering public water supplies or flooding	The Inspectorate has had regard to the characteristics of the Proposed Development and agrees that significant effects from contaminants of groundwater entering public water supplies or flooding during operation are unlikely and this matter can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report
4.8.16	Health Impacts	Major accidents: Health effects from major accidents during construction	The Scoping Report proposes to scope out an assessment of health effects arising from major accidents during construction on the basis that the major accidents assessment concludes no likely significant effects on population and health as a result of a major accident during construction. The Applicant is directed to	An assessment of potential effects related to major accidents and disasters is presented in Chapter 14 Major Accidents. Findings of this assessment are also outlined in Appendix 13.4 Human Health Technical Note.



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			the comments in Table 4.9 below with regards to matters relating to major accidents and health.	
4.8.17	Health Impacts	Major accidents: Health effects occurring as a result of fires from major releases of aviation fuels	The Scoping Report proposes to scope out an assessment of health effects occurring as a result of fires from major releases of aviation fuels on the basis that this will be assessed in the Major Accidents chapter of the ES. The Inspectorate is satisfied with this approach and asks that the Applicant ensures adequate cross referencing is in placed in the ES to assist the reader.	N/A Scoping Opinion agrees with Scoping Report
4.8.18	Health Impacts	Community well-being: Well-being effects due to public perception of effects	The Scoping Report proposes to scope out an assessment of well-being effects due to public perception of the effects of the Proposed Development on the basis that mitigation measures would be sufficient to mitigate any effects on health. However, limited information on such mitigation measures is presented in the Scoping Report. In the absence of detailed evidence to support this assertion, the Inspectorate does not consider that detailed information has been provided to justify a scoping out of the assessment at this stage. The ES should assess the where significant effects are likely to occur.	These issues have been addressed in Appendix 13.4 Human Health Technical Note and also within Chapter 13 People and Communities. No significant effects have been identified on well-being due to public perception of effects associated with the project.
4.8.19	Health Impacts	Aspects and matters considered to be not significant	The Inspectorate acknowledges that the Applicant's proposed approach is to undertake an assessment of impacts to health informed by the outcome in other relevant aspect chapters. The Applicant should ensure that significant effects to health are assessed and presented in the ES.	N/A Scoping Opinion agrees with Scoping Report
4.8.20	Health Impacts	Stakeholder engagement	The applicant should make effort to agree the approach to the assessment with relevant consultation bodies.	Public Health England and the Health and Safety Executive (HSE) provided a response on the Scoping Report and these were considered in the development of the ES. Additional meetings were held with the HSE to discuss the scope of the Major Accident assessment.



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4.8.21	Health Impacts	Determinants of health and well-being	The Scoping Report includes an intent to examine the ecological determinants of health and well-being shown in Figure 14.1 in the assessment of human health. The Applicant should ensure that the ES also assesses the social determinants of health and well-being, to include living and working conditions, social and community networks, and individual lifestyle factors.	The National Health Service London Healthy Urban Development Unit's 'Rapid Health Impact Assessment Tool has been used to inform Appendix 13.4 Human Health Technical Note in considering and assessing the impacts of the project on the social determinants of health and well-being.
4.8.22	Health Impacts	Study Area	The Scoping Report states that the study area will vary depending on which aspect relevant to health is being assessed. The ES should clearly state which study area is being applied to the assessment of health impacts. The ES should clearly cross reference the relevant sections of other aspect chapters and supporting plans where relevant.	The study area for the assessment of potential impacts on human health is defined by the biophysical factor under consideration and aligns itself with the reported study area(s) outlined within each of the correlated technical assessments. A table has been included in Appendix 13.4 Human Health Technical Note to help explain the study areas used.
4.8.23	Health Impacts	Baseline	The baseline data in the Scoping Report is derived from the counties of Surrey and Hampshire only and omits other areas such as the London Borough of Hounslow and the administrative area of the Greater London Authority. The Inspectorate considers that baseline data in the ES should represent all affected areas.	Given that only 60m (an area encompassing approximately 0.57ha) of the project is situated within the boundary of the Greater London Authority administrative area, and the similarities in the socio-economic environment in respect to Hampshire and Surrey, baseline information specific to the GLA area is not outlined in this assessment. This is due to its inclusion having the potential to disproportionately skew relevant baseline information on which the impact assessment relies upon.
4.9.1	Major Accidents	Consideration of vulnerability to disasters, including natural disasters	The Scoping Report explains that a separate assessment of disasters is not included on the basis that they are considered to result in the same potential effects as major accidents. The Inspectorate advises that the ES must identify the impacts which could give rise to significant effects, considering both the potential for the Proposed Development to give rise to major accidents and disasters, and the vulnerability of the Proposed	Chapter 14 Major Accidents includes an assessment of the potential significant effects resulting from both major accidents and natural disasters applicable to the project.



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			Development to those events. Chapter 15 treats these matters as one and the same with the universal matter being the significant release of aviation fuel leading to harmful effects on people or the environment. The Inspectorate considers that this approach may not capture all potential impacts. The ES should include an assessment of the vulnerability of the Proposed Development to disasters, including natural disasters, where significant effects are likely to occur.	
4.9.2	Major Accident	Potential impact on receptors from diesel during construction	The Scoping Report proposes to scope out the release of diesel from temporary storage during construction as a source of major accidents. While it is identified as a hazard, the Scoping Report states that the scale of storage will be small and that good construction practices can mitigate effects. The Inspectorate considers that insufficiently detailed information about the planned temporary diesel storage and the construction practices relied upon has been provided to allow this matter to be scoped out. The ES should therefore assess this matter and provide a thorough explanation of the mitigation measures relied upon in the assessment.	Chapter 14 Major Accidents includes an assessment of the potential effects from diesel spills during construction. During construction, diesel would be stored in relatively low volumes to fuel on-site plant and equipment. Diesel would be managed on site in accordance with the good practice measures set out within the REAC. No further mitigation is proposed.
4.9.3	Major Accidents	Potential impact on receptors from the release of methane from landfills during construction	The Scoping Report proposes to scope out an assessment this matter on the basis that the risk of encountering significant methane-rich landfill gas from historic landfill is believed to be very low. The Scoping Report explains that ground investigations relevant to this matter are still ongoing. Accordingly, the Inspectorate does not consider that detailed information has been provided to demonstrate that methane release would not result in a significant effect. The ES should therefore assess this matter where significant effects are likely to occur.	Chapter 14 Major Accidents includes an assessment of the potential effects associated with methane from landfills. The route crosses landfills. There is a low likelihood of encountering major sources of methane-rich landfill gas, due to the age of the waste in sites underlying the proposed route and the nature of the works. Chapter 11 Soils and Geology confirms that the good practice measures set out in the REAC would reduce the risks during construction and there is not expected to be a significant effect.
4.9.4	Major Accidents	Potential impact of toxicity on	The Scoping Report proposes to scope out this matter and points to information contained in the Material Safety Data Sheet (MSDS) for aviation fuel which does not identify any associated	Chapter 14 Major Accidents includes an assessment of the potential effects associated with toxicity on population and human health.



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		population and human health	toxicity. The Inspectorate has not been presented with this information and therefore cannot verify this conclusion. The ES should include an assessment of this matter, where significant effects are likely to occur.	
4.9.5	Major Accidents	Potential impact from explosions on population and human health	The Scoping Report proposes to scope this matter out but there is limited detail to justify this approach. The Inspectorate does not consider that detailed information has been provided on the likelihood of explosions at above ground installations to justify a scoping out of the assessment at this stage. The ES should therefore assess this matter where significant effects are likely to occur.	Chapter 14 Major Accidents includes an assessment of the potential effects associated with explosions.
4.9.6	Major Accidents	Potential impact from fire on population and human health	The Scoping Report proposes to scope out this matter on the basis that aviation fuel is not flammable under UK ambient conditions and provides evidence of historic data supports a conclusion that aviation fuel does not present a fire risk. The Scoping Report also states that the principles of inherent safe design and good practice have been incorporated. However, there is an absence of detailed evidence to support this assertion. Accordingly the Inspectorate does not consider that detailed information has been provided to justify a scoping out this matter. The ES should assess this matter where significant effects are likely to occur.	Chapter 14 Major Accidents includes an assessment of the potential effects associated with fire.
4.9.7	Major Accidents	Potential toxicity impact on protected fauna species that are metapopulations or which can readily move away	The Scoping Report proposes to scope out an assessment of these matters. However, there is an absence of detailed information to support this assertion. The Inspectorate does not consider that detailed information has been provided to justify a scoping out the assessment of this matter. The ES should assess this matter where significant effects are likely to occur.	Chapter 14 Major Accidents includes an assessment of the potential effects associated with toxicity impact on protected fauna species.
4.9.8	Major Accidents	Potential air pollution impact and impacts on	The Scoping Report proposes to scope out an assessment of this matter on the basis that any releases would be small scale and negligible. However, the Scoping Report lacks detailed	Chapter 14 Major Accidents includes an assessment of the potential effects associated with potential air pollution.



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		climate due to release of aviation fuel	evidence to support this assertion and the Inspectorate does not consider that detailed information has been provided to justify a scoping out this matter. The ES should assess this matter where significant effects are likely to occur.	
4.9.9	Major Accidents	Potential impact of smoke or fire damage on material assets and cultural heritage	The Scoping Report proposes to scope out an assessment of this matter on the basis that it would require a major fire. The Scoping Report has not explained why this risk is unlikely to occur. Accordingly, the Inspectorate does not consider that detailed information has been provided to justify a scoping this matter out. The ES should therefore assess the effects associated with this matter where significant effects are likely to occur.	Chapter 14 Major Accidents includes an assessment of the potential effects associated with smoke or fire damage.
4.9.10	Major Accidents	Potential impact on landscape	The Scoping Report proposes to scope out an assessment of the potential impact on landscape on the basis that landscape does not have any assessment criteria under major accidents. The Inspectorate has had regard to the characteristics of the Proposed Development and agrees that significant effects on landscape are unlikely from a major accident and disasters perspective and this matter can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Opinion
4.9.11	Major Accidents	Policy and Legislation	Section 15.2 does not include the Civil Contingencies Act 2004, which the ES should have regard to when carrying out the assessment of effects from major accidents and disasters.	Relevant guidance has been reviewed when developing the ES.
4.9.12	Major Accidents	Methodology	The Scoping Report references numerous sources of regulatory guidance in Section 15.2, including Health and Safety Executive (HSE) 'Guidance Note L111'; HSE's 'Safety Report Assessment Manuals (SRAMs)'; HSE's 'Planning Advice for Developments near Hazardous Installations (PADHI)'; and 'The Chemicals and Downstream Oil Industries Forum (CDOIF) Guidelines for Environmental Risk Tolerability for COMAH Establishments'. While reference is made to L111, SRAMs and PADHI being drawn upon for in the development of the chapter, no further reference is made to this guidance, and it appears that the CDOIF Guidelines are chosen by the Applicant as the primary	Chapter 14 Major Accidents clearly sets out the methodology for the assessment. The scope of the assessment has been agreed with the HSE. As the project is not a COMAH development the Environment Agency confirmed that their consultation input would not be necessary on this topic.



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			basis for its methodology. The ES should be clear on the methodology to be used by in the assessment. The Applicant should make effort to agree the approach with the relevant consultation bodies.	
4.9.13	Major Accidents	Baseline conditions	The Scoping Report states that the baseline conditions have been largely informed by other aspect chapters. The Applicant should ensure that the ES provides an in-depth description of the baseline for the assessment of major accidents and disasters, including cross referencing and signposting to the relevant information contained elsewhere in the ES.	Chapter 14 Major Accidents includes a summary of the baseline conditions with appropriate cross referencing to the detail in other chapters as appropriate.
4.9.14	Major Accidents	Study area	The Scoping Report follows CDOIF guidance in establishing the study area by considering the most sensitive receptors identified within 10km of the Proposed Development. The Applicant should make effort to agree the approach to defining the study area with relevant consultation bodies.	Up to 1km was established for the identification of potentially sensitive land, groundwater or surface water receptors. For surface watercourses within the 1km study area, a wider study area of up to 10km downstream was considered. The approach of the assessment was agreed with the Health and Safety Executive (HSE).
4.9.15	Major Accidents	Assessment of receptors	The Scoping Report states that an initial risk assessment would be carried out on the most vulnerable receptors and that if this demonstrates that there would be no significant effects, then it would be inferred that lesser vulnerable receptors would not suffer significant effects either. The Inspectorate does not agree with this approach. The assessment should identify all relevant receptors, their sensitivity, the potential impact pathways, the magnitude and significance of effect. This is consistent with the CDOIF methodology being applied by the Applicant which states that it is necessary to understand the potential for a major accident for each receptor.	The CDOIF principles and approach to identify a MATTE have been adopted as appropriate for this assessment. The assessment has included a review of potential sources (causes) of major accidents and disasters, identification of vulnerable environmental receptors and consideration of any credible pathways to receptors and the potential for consequent significant environmental harm to occur.
4.10.1	Cumulative Effects	Effects on local plan development	The advices the Applicant to undertake an assessment having regard to the Inspectorate's Advice Note Seventeen, which would include reasonably foreseeable developments. The	The Local Planning Authorities were consulted on the scope of the long and short lists included within Chapter 15 Cumulative Effects.



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			Applicant is encouraged to make efforts to agree the approach with relevant consultation bodies.	
4.10.2	Cumulative Effects	Pre-2017 applications	The Scoping Report proposes to scope out an assessment of planning applications consented before 2017 but not yet started due to the three-year time limit for construction imposed by planning permissions. The Inspectorate is of the view that this may exclude some very large and complex developments from consideration as part of the cumulative effects assessment, and advises the Applicant to make effort to agree the list of planning applications to be considered in the cumulative assessment with relevant consultation bodies.	The long list now includes applications dating back to 2011. A 10-year search period going back from the start of construction year of this project (2021) has been set as the time limit to capture these developments. The long list of projects was issued to the relevant Local Planning Authorities for comment.
4.10.3	Cumulative Effects	Operational intra-development effects	The Scoping Report proposes to scope out operational intra-development cumulative effects on the basis that no single receptor has been identified at this stage which has to the potential to be affected by more than one impact arising from the Proposed Development during its operational phase. The Inspectorate has had regard to the characteristics of the Proposed Development and agrees that significant operational intra-development effects are unlikely, and this matter can be scoped out of the ES.	N/A Scoping Opinion agrees with Scoping Report
4.10.4	Cumulative Effects	Baseline conditions	The Scoping Report states that the baseline conditions have been informed by other aspect chapters. The Applicant should ensure that the ES provides an in-depth description of the baseline for the assessment of cumulative effects, including cross referencing and signposting to the relevant sections of other aspect chapters that are being relied upon.	Appropriate cross referencing has been used throughout Chapter 15 Cumulative Effects to link the relevant details in the technical chapters.
4.10.5	Cumulative Effects	Professional judgement	The Scoping Report refers to the use of professional judgement in order to determine the likely significance of effects. The application of professional judgement used within the assessment should be clearly identified and fully justified in the ES.	The use of professional judgement has been clearly identified and justified in Chapter 15 Cumulative Effects.
4.10.6	Cumulative Effects	Construction intra-	Table 16.3 of the [Scoping Report] identifies where intra-development cumulative effects during construction will be	A consistent approach had been used throughout Chapter 15 Cumulative Effects.



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		development cumulative effects	assessed within the ES for each sensitive receptor. However, this table does not reference rural urban communities, rural tourists or soils, all of which are identified in Table 16.1 as receptors experiencing potential effects as a result of the Proposed Development. The Applicant should ensure that the ES presents a consistent assessment of all receptors identified.	
4.10.7	Cumulative Effects	Heathrow Expansion	The Inspectorate notes that the proposed Heathrow Expansion development is scoped in to the cumulative impact assessment on the basis of traffic. Given the potential temporal overlap and the proximity between the developments, the ES should consider the potential for cumulative impacts with this project for all relevant aspects, where significant effects are likely to occur.	An assessment of cumulative effects with the proposed Heathrow Expansion has been included in Chapter 15 Cumulative Effects.
4.10.8	Cumulative Effects	Water infrastructure projects in Hampshire	Water infrastructure projects in Hampshire have been identified in Table 16.4 as scoped into the cumulative effects assessment. However, these projects do not appear on the accompanying Figure 16.1 of the Scoping Report. The Applicant should ensure that all projects scoped into the cumulative effects assessment are identified on any accompanying figure within the ES.	All projects listed on the shortlist of development have been included on the figure accompanying Chapter 15 Cumulative Effects.
4.10.9	Cumulative Effects	Construction intra-development cumulative effects assessment	The Scoping Report states that intra-development cumulative effects during construction will be scoped within the aspect chapters of the ES and summarised within the cumulative effects chapter. The Applicant should also ensure that the ES contains an overarching section explaining the methodology used for the assessment of these effects and how this was applied to each individual aspect.	Chapter 15 Cumulative Effects clearly sets out the methodology that has been applied to the assessment of intra-development cumulative effects.
4.10.10	Cumulative Effects	Construction period	The Scoping Report states that for inter-development cumulative effects from construction, other developments have been identified based on the expected construction period of 2020-2021. However, paragraph 3.8.3 of the Scoping Report states that the expected construction period is 2021-2022. The Applicant should ensure that its expected construction period has been consistently assessed throughout the ES, and that for the	The proposed construction schedule can be found in Appendix 3.2 Proposed Construction Schedule. This shows that installation of the pipeline is expected to run from January 2021 until January 2023 with mobilisation commencing after grant of the DCO. Operation would commence from early 2023. As construction and operational phases of the



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			purposes of inter-development cumulative effects, the appropriate projects have been identified.	project occur at different times, they do not act cumulatively with each other.
4.11.1	Waste	Waste: Materials required for construction and operation	Appendix 7 states that due to the relatively low quantity of required construction and operation materials and the high quantity of materials available from multiple sources no significant effects are anticipated to occur to the availability of materials. The Inspectorate is content that the characteristics of the Proposed Development are such that significant effects in this regard are unlikely. The Inspectorate agrees that materials required for construction and operation can be scoped out of the impact assessment within the ES.	N/A Scoping Opinion agrees with Scoping Report
4.11.2	Waste	Waste: Inert and hazardous waste produced during construction and operation and effects on waste capacity	Appendix 7 states that no significant effects on waste treatment and disposal facility's available capacity are anticipated to arise from the production of inert and hazardous waste during construction and operation, as the quantity of waste produced will not impact the inert and hazardous waste capacity in the region. On this basis the Inspectorate agrees that this matter can be scoped out of the impact assessment within the ES.	N/A Scoping Opinion agrees with Scoping Report
4.11.3	Air Quality	Air Quality: Effects of construction generated dust (rural and urban areas)	Appendix 8.1 proposes to scope out construction dust due to the prevention of significant effects through the implementation of the mitigation measures outlined in Chapter 4 of the Scoping Report. Sensitive human and ecological receptors are identified within the buffer recommended by the Institute of Air Quality Management's (IAQM) Guidance on the assessment of dust from demolition and construction (2016). Appendix 8.1 indicates a medium risk of dust deposition from the construction compounds. Although it is not explicitly stated in the Scoping Report, the Inspectorate assumes this is the total for all compounds within the Proposed Development and not at each compound location. Sufficient justification to conclude on the risk from construction activities along the pipeline route is not provided. The Scoping Report also states that demolition activities are not anticipated, although this statement conflicts with statements made elsewhere in the Scoping Report.	The project would not require the demolition of any houses. However, a small number of single storey garages would need to be removed at Stakes Lane to the west of Farnborough Station to facilitate installation of the replacement pipeline. It is also possible that removal of garden sheds/greenhouses, temporary loss of land such as a garden and/or parking area, and the temporary loss of access and boundary features may be required. Appendix 13.2 Air Quality Technical Note includes a Dust Risk Assessment. This concludes that there would be a maximum of a medium risk of dust generated during certain activities. However, with the adoption of the



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			<p>The Inspectorate does not agree that effects associated with air quality changes due to construction can be scoped out. The Scoping Report currently does not provide detailed information regarding the location and value of sensitive receptors that could be within or adjacent to the Proposed Development route and could potentially be affected by dust deposition, nor does it entirely confirm the risk from construction generated dust associated with the Proposed Development.</p> <p>The ES should clearly identify the risk of construction dust and the sensitivity of receptors for the Proposed Development, where significant effects are likely. The ES should describe any proposed mitigation relied upon and the anticipated efficacy of the mitigation, before concluding on residual effects.</p>	<p>standard good practice measures set out in the REAC, there is not expected to be any significant effects.</p>
4.11.4	Air Quality	Air Quality: Emissions from construction plant and machinery in rural and urban areas	<p>The Air Quality Appendix proposed to scope out this matter due to the low likelihood of significant effects occurring to sensitive receptors including Air Quality Monitoring Areas (AQMA) on the basis that; the machinery will only be operating for a short duration, there would be a low number and size of plant machinery items operating simultaneously during construction, and that the IAQM construction dust guidance the assessment of dust from demolition and construction states that non road mobile machinery are unlikely to make significant impacts on local air quality (paragraph A8.1.4.19). The Inspectorate agrees that the characteristics of the Proposed Development are such that impacts from construction plant and machinery emissions are unlikely to be significant and this matter can be scoped out of the impact assessment within the ES.</p>	<p>N/A Scoping Opinion agrees with Scoping Report</p>
4.11.5	Air Quality	Air Quality: Emissions from construction related road traffic	<p>The Air Quality Appendix proposes to scope out this matter due to the increase in Annual Average Daily Traffic (AADT) from the Proposed Development not exceeding the EPUK/ IAQM screening criteria. Based on the conclusions in Appendix 7 the transport of construction materials and waste are considered unlikely to raise the AADT to exceed the EPUK/IAQM criteria; however, the Inspectorate notes some discrepancies in the</p>	<p>Appendix 13.2 Air Quality Technical Note concludes the highest increase in AADT outside of an AQMA would be 44 HDVs and 258 LDVs at Hartland Park construction logistics hub. Within an AQMA, at the Brett Aggregates construction logistics hub the increase in AADT would be a maximum of 20</p>



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			calculations presented in Appendix 8.2 Traffic and Transport and Appendix 8.1 Air Quality, in particular for urban areas (see comments at point 4.11.9 below). Due to lack of clarity with regards to the data and the lack of information on the anticipated traffic flows and locations, displaced traffic effects, and cumulative effects, the Inspectorate considers that the ES should confirm the anticipated construction vehicle movements and present an assessment of air quality effects from increased construction vehicle movements on sensitive receptors (human and ecological – see comments in Table 4.1 and 4.11), where significant effects are likely to occur.	HDVs and less than 100 LDVs. These increases would not exceed the EPUK/IAQM screening criteria. On this basis, the effects from construction road traffic on air quality are not considered to represent a significant effect on receptors adjacent to the local road network. The air quality effects would be described as negligible.
4.11.6	Air Quality	Air Quality: Emissions from the operation of the pipeline	The Air Quality Appendix states “there are no significant sources of air quality or dust effects associated with the operation of the pipeline. Therefore, these are not considered further.” On this basis and the information in the Scoping Report the Inspectorate agrees that emissions from the operation of the pipeline can be scoped out of the impact assessment within the ES.	N/A Scoping Opinion agrees with Scoping Report
4.11.7	Traffic and Transportation	Traffic and Transport: Effects on rural: <ul style="list-style-type: none"> • traffic flows; • journey times; and • collision and safety 	The Traffic and Transportation Appendix proposes to scope out this matter as no significant effects are anticipated to occur due to the potential effects being temporary (2-3 days). On the basis that the potential effects will be temporary (2-3 days) and the information provided in the Scoping Report, the Inspectorate agrees that this matter can be scoped out of the impact assessment within the ES.	N/A Scoping Opinion agrees with Scoping Report
4.11.8	Traffic and Transportation	Traffic and Transport: Severance and pedestrian delay around rural work sites	The Inspectorate agrees that this matter can be scoped out of the assessment due to the very low likelihood of significant effects occurring due to any potential effects being temporary (2-3 days). On this basis, the Inspectorate agrees this matter can be scoped out of the impact assessment within the ES.	N/A Scoping Opinion agrees with Scoping Report
4.11.9	Traffic and Transportation	Traffic and Transport: Total	The Traffic and Transportation Appendix proposes to scope out this matter as no significant effects are anticipated to occur due	Appendix 13.1 Traffic and Transport Technical Note assesses the effects both in terms of



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		traffic flows and Heavy Duty Vehicles (HDV) traffic flows in urban areas	<p>to the potential effects being temporary (2-3 days). However, the Scoping Report also identifies there may be increased congestion on the managed roads and other parts of the road network and at paragraph A8.2.4.7 states that significant effects may be generated for traffic flows. There is a lack of clarity with regards to the data presented in Table A8.2.5 and the Scoping Report also lacks information on the anticipated traffic flows and locations, displaced traffic effects, and cumulative effects.</p> <p>The ES should clearly present the predicted construction traffic movements for the Proposed Development and assess the likely significant effects associated with traffic flows, journey times and collisions and safety, on relevant receptors. The ES should also consider those aspect chapters and matters that are affected by the traffic and transport assessment. The Applicant should seek to agree the approach to the assessment with the relevant consultation bodies.</p>	changes to traffic flows from construction vehicles and the impact of displaced traffic. The Traffic Assessment Scoping Report was issued to the Highways departments at Hampshire and Surrey County Councils in January 2019. No comments have been received at the point of writing the ES. No significant effects to traffic have been identified.
4.11.10	Traffic and Transportation	Traffic and Transport: Journey times for cyclists in urban areas	The Traffic and Transportation Appendix proposed to scope out journey times for cyclists due to cyclist being less affected by queuing traffic and therefore no significant effects are anticipated to occur. The Inspectorate agrees that significant effects are unlikely and this matter can be scoped out of the impact assessment within the ES.	N/A Scoping Opinion and Scoping Report
4.11.11	Traffic and Transportation	Traffic and Transport: Severance and pedestrian delay around urban work sites	The Inspectorate agrees that this matter can be scoped out of the assessment due to the very low likelihood of significant effects occurring due to any potential effects being temporary (2-3 days). On this basis, the Inspectorate agrees this matter can be scoped out of the impact assessment within the ES.	N/A Scoping Opinion agrees with Scoping Report
4.11.12	Traffic and Transportation	Traffic and Transport: Operational effects	The Traffic and Transportation Appendix states that operational traffic is likely to be less than 1 vehicle per day. On this basis it is unlikely for significant effects to occur and the Inspectorate agrees this matter can be scoped out of the impact assessment within the ES.	N/A Scoping Opinion agrees with Scoping Report



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4.11.13	Noise	Noise: Baseline noise or vibration surveys at receptors along the pipeline route or relevant public highway routes	The Scoping Report does not contain detailed information on the anticipated noise and vibration emissions and characteristics of the proposed upgrade/ modernisations of the Alton Pumping Station and new pumping station at Boorley Green. The ES should provide further information regarding the noise and vibration characteristics for these elements and demonstrate why a BS4142 assessment supported by baseline monitoring would not be required.	<p>Pigging stations are essentially sections of pipework that enable PIGs to enter and exit the main pipeline. As such, they do not contain any machinery or plant or any other moving parts and are not sources of environmental noise or vibration. The movement of PIGs along buried pipelines, and the entry or exit of PIGs at pigging stations, is a quiet activity with no noticeable noise above ground.</p> <p>The project also includes installing a single replacement external pump near to the existing pumps at Alton Pumping Station. Appendix 13.3 Noise and Vibration Technical Note concludes that the operation of the proposed pump would not give rise to adverse noise or vibration effects. As there are no anticipated noise or vibration effects, baseline monitoring has not been undertaken.</p>
4.11.14	Noise	Noise: Effects arising from construction vehicle movements on public highways	As noted at point 4.11.9 above, there appears to be inconsistencies within the Traffic and Transport Appendix and therefore, the Inspectorate cannot agree to scope out noise and vibration effects at this stage. The ES should confirm the anticipated construction vehicle movements and present an assessment of noise and vibration effects of construction vehicle movements on sensitive receptors, where significant effects are likely to occur.	<p>The greatest potential for adverse noise effects due to site traffic during installation would be along rural roads with low baseline traffic flows, where the highest percentage increase in traffic flows are expected to occur. Appendix 13.3 Noise and Vibration Technical Note includes an assessment of the effects at New Road Windlesham, which is considered to have the greatest potential increase in noise due to a combination of low baseline flows and high numbers of site vehicle movements.</p> <p>The construction traffic at this location is expected to give rise to an increase in noise of approximately 0.2 dB during the installation period, which is not considered significant.</p>



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				Increases in noise along all other routes used by site traffic are expected to be less than this, and therefore no significant adverse noise effects associated with traffic movements are expected along public highways for any section of the project.
4.11.15	Noise	Noise: Effects arising from the operation of the pipeline, including normal pumping operation, commissioning, maintenance and inspection	<p>The Scoping Report does not provide a description of the likely works to upgrade and modernise the existing pumping station at Alton and the proposed pigging station at Boorley Green. Therefore, there is no indication as to whether there would be any changes to existing noise/ vibration levels at these locations. The ES should describe the works including the proposed upgrade/ modernisation works proposed for Alton Pumping Station and pigging station at Boorley Green. Where changes to noise and vibration emissions and characteristics may result in likely significant effects to sensitive human or ecological receptors, these should be assessed in the ES.</p> <p>The Inspectorate agrees that effects of noise and vibration as a result of the flow of fuel in the pipeline and the operation of valves can be scoped out of the ES on the basis of low likelihood of significant effects.</p>	<p>Pigging stations are essentially sections of pipework that enable PIGs to enter and exit the main pipeline. As such, they do not contain any machinery or plant or any other moving parts and are not sources of environmental noise or vibration. The movement of PIGs along buried pipelines, and the entry or exit of PIGs at pigging stations, is a quiet activity with no noticeable noise above ground.</p> <p>The project also includes installing a single replacement external pump near to the existing pumps at Alton Pumping Station. Appendix 13.3 Noise and Vibration Technical Note concludes that the operation of the proposed pump would not give rise to adverse noise or vibration effects. As there are no anticipated noise or vibration effects, baseline monitoring has not been undertaken.</p>
4.11.16	Other Aspects	Waste: Transport of materials and waste	The Waste Technical Note has not demonstrated any cross reference between the transportation of materials and waste and the potential effects this may have on traffic, air quality and noise. An assessment describing the potential effects of transporting materials and waste to and from site should be included in the appropriate chapters within the ES, where these effects could be significant.	The estimated volumes for construction traffic have included the transportation of materials and waste to and from site. These numbers have also been used in the noise and air quality assessments. The traffic assumptions can be found in the Transport Assessment (application document 7.4).
4.11.17	Other Aspects	Waste: Watching brief	The Waste Technical Note states that further details on the watching brief are included within Chapter 4, and Chapter 11. However, no explanation of a watching brief is included within	Good practice measures for air quality are set out in the REAC and secured through DCO requirements such as the CoCP. The REAC



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			these chapters. The ES should contain this information where it has informed the identification of potential effects.	contains the commitment to A Land Contamination Suitably Experienced Person (SEP) would be appointed. They would have practical experience in brownfield earthworks and be able to use their professional judgment to take a proportionate approach to the assessment of potential for ground contamination based on the desk study information and field observations. Their work would be on a targeted basis. (G72)
4.11.18	Other Aspects	Demolition	The Air Quality Appendix states that no demolition activities are associated with the Proposed Development. However, paragraphs 12.4.2, 12.4.8, 12.4.14 and 12.4.21 of the Scoping Report all state that demolition of buildings may occur. The ES should include a full description of any demolition required and assess the potential significant effects.	The project would not require the demolition of any houses. However, a small number of single storey garages would need to be removed at Stakes Lane to the west of Farnborough Station to facilitate installation of the replacement pipeline. It is also possible that removal of garden sheds/greenhouses, temporary loss of land such as a garden and/or parking area, and the temporary loss of access and boundary features may be required.
4.11.19	Other Aspects	Traffic and Transport study area	No justification for using a 2km study area is included within the Scoping Report. The study area should be based on the anticipated extent of potential impacts. The Inspectorate advises that the Applicant makes effort to agree the extent of the study area with the relevant consultation bodies.	A 2km study area was originally used in the Scoping Report. This was refined following the release of the location of key works features such as logistics hubs and construction compounds and the location of traffic management and diversions where these met the assessment criteria. The scope of the Transport Assessment was agreed with Hampshire and Surrey County Councils.
4.11.20	Other Aspects	Traffic management strategy	The Air Quality Appendix states that the environmental impacts from temporary traffic signals lasting longer than one week will be mitigated by measures included within the traffic management strategy. The Applicant should seek to agree the traffic	Good practice measures for air quality can be found within the REAC and will be delivered and secured through DCO requirements. A Construction Traffic Management Plan



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			management strategy and the proposed mitigation measures with the relevant highway authorities and include the traffic management strategy within the ES.	(CTMP) would be produced. The contractor(s) would then implement measures within the CTMP (G110).