Southampton to London Pipeline Project

Deadline 2

Response to the Examining Authority's First Written Questions Biodiversity and Habitats Regulations Assessments (BIO)

Application Document: 8.6.03

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1 Response to the Examining Authority's Written Questions – Biodiversity and Habitats Regulations Assessments (BIO)

Table 1.1: Applicant response to Question

ExQ1	Question:	Applicant response to Question:
BIO.1.1	Requirement 12 of the draft DCO [AS-059] requires the submission and approval of a Landscape and Ecological Management Plan (LEMP) in accordance with the REAC, which is contained within Chapter 16 of the ES [APP-056]. The LEMP would contain, amongst other things, details of the reinstatement of hedgerows and trees. Although the Applicant relies heavily on the measures contained within the LEMP to mitigate biodiversity and wildlife effects, no outline document is before the Examination. i) Justify the approach that no outline submission is before the ExA, particularly as the final LEMP would need to be approved by numerous relevant planning authorities. ii) In the absence of outline contents, explain how the ExA and the relevant planning	**N.B. The responses to questions i, ii and iii are the same for both BIO.1.1 and LV.1.1.** 1.1 In answer to BIO.1.1 and LV.1.1 i), the mitigations and commitments relating to landscape and ecological matters and reflecting the conclusions of the Environmental Statement (ES) are set out in the Register of Environmental Actions and Commitments (REAC) (**Application Document APP-056**). These commitments provide the subjects that would be covered within the Landscape and Ecological Management Plan (LEMP). 1.2 The Applicant considers that the relevant planning authority is the appropriate body to consider the local impacts and mitigation that will be set out in the LEMP. Given the subject matter, a LEMP is location specific and not capable of universal adoption along the pipeline route. In addition, at this stage in the project there is no meaningful detail that can be included in an outline LEMP as detailed design has not taken place and so the exact pipeline route, and therefore the necessary details for inclusion in the LEMP (or even an outline LEMP), are not known. It is accepted that a final LEMP would need to be approved by numerous relevant planning authorities, but the Applicant does not consider that provision of an outline document for examination would reduce that requirement or assist at the discharge stage. This is consistent with the approach adopted by other Development Consent Orders (DCOs). 1.3 In answer to BIO.1.1 and LV.1.1 ii), commitments in respect of landscape matters are set out in the REAC (which also signposts which commitments would be included in the LEMP). As per Requirement 12(1) of the draft DCO (Document Reference 3.1 (3)), the LEMP for each stage must reflect the survey results and ecological mitigation and other measures included in the REAC, which, as part of the Environmental Statement, would be a certified document. These commitments are therefore secured. As set out in the relevant requirement, the relevant authority would need to approve the LEMP, and any concerns they have over the delivery of the mitigation can be resolved as part of approval process. Part 2 of Schedule 2 of the draft DCO (**Document Reference 3.1 (3)**) governs this process, and if necessary, the

ExQ1	Question:	Applicant response to Question:
	authorities can be satisfied, that measures in the LEMP would deliver the mitigation that the conclusions that the submitted ES relies upon.	relevant authority can request further information as part of its deliberations. Ultimately, if the Applicant and the relevant authority disagree over whether the LEMP should be approved with or without amendments, an appeal process is provided for with an appeal to the Secretary of State. As far as the Applicant is aware, this is consistent with the approach adopted by other DCOs.
	iii) Provide an Outline LEMP, listing measures that would be secured, drawings to be prepared, detailing consultation that would be undertaken and with whom, and the inter-relationship of ecology and landscape.	1.4 In answer to BIO.1.1 iii and iv and LV.1.1 iii), as noted above, the Applicant does not consider it necessary or appropriate to provide an outline LEMP.
	iv) If an Outline LEMP is provided, explain whether it should form a Certified Document in Schedule 11 of the draft DCO [AS-059].	
	N.B – There is significant overlap between this question and LV.1.1. The Applicant (and any other Interested Parties) may wish to address the issue in a combined response to both questions.	

ExQ1	Question:	Applicant response to Question:
BIO.1.3	In respect of the assessment of dust on ecological receptors: i) Explain whether the methodology applied in the ES [APP-047] is suitable to assess the effects on distinct ecological features, and whether there is potential undervaluation of the sensitivity of ecological features when relying on level of designation or legal protection rather than their susceptibility to dust impacts from the Proposed Development. ii) Include reference in your response to any advice received from ecological experts or relevant stakeholders.	1.1 In answer to i), as set out within paragraph 1.3.1 of Environmental Statement (ES) Appendix 13.2 (**Application Document APP-120**), the air quality assessment for dust deposition, was based on the process set out within the Institute of Air Quality Management guidance (2016). 1.2 Dust deposition was assessed for all important ecological features where a potential pathway to effect was identified, see Table 7.15 in ES Chapter 7 (**Application Document APP-047**). It was also assessed in the Habitats Regulations Assessment (HRA) Report (**Application Documents APP-130 and APP-131**), see paragraph 3.4.15, Table 3.1, Table 4.1, section 6.3 and Appendix D. 1.3 Appendix 13.2 Air Quality Technical Note (**Application Document APP-120**) paragraphs 1.6.1 to 1.6.19, shows that, taking into account the good practice measures for air quality set out in the Register of Environmental Actions and Commitments (REAC) in ES Chapter 16 (**Application Document APP-056**) references G20, G21, G25, G28 and G30, there would be no potential significant effects in relation to dust and there is no requirement for further mitigation. 1.4 The Applicant believes that assigning EIA value/sensitivity to a level of habitat type and individual species is a proportionate approach when assessing dust impacts and therefore ecological features have not been undervalued. 1.5 In answer to ii), the Statement of Common Ground between the Applicant and Natural England (**REP1-005**) states agreement with approach and methods used.

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BIO.1.4	With reference to pre-construction biodiversity surveys (measure G33 in the REAC [APP- 056] and Code of Construction Practice (CoCP) [APP-128]), explain the trigger for whether "existing baseline survey data needs to be updated or supplemented" for individual receptors and who would be responsible for determining this.	1.1 G33 has been updated in response to this question and has been included in the updated CoCP (**Document Reference 6.4 Appendix 16.1 (2)**) included with this deadline submission. This commitment now states: *'Pre-construction surveys would be completed if existing baseline survey data need to be updated or supplemented, for example:* • *where access is now available to land that was previously targeted for survey work but in respect of which access was previously denied;* • *where professional judgement identifies a change to the baseline of an area to that reported in the ES and which requires further assessment; or* • *to update or confirm information on the location of protected species.'* 1.2 The Applicant would also be responsible for determining whether existing survey data needs to be updated or supplemented to support detailed design and pre-construction planning.
BIO.1.5	Paragraph 2.3.5 of the Bird Factual Report [APP-090] confirms that only desk study work has been undertaken for birds, with no specific field surveys undertaken. Explain the extent to which they consider the findings of the assessment of impacts to birds are reliable in absence of this level of effort.	1.1 As stated in paragraph 2.3.5 of the Environmental Statement (ES) Appendix 7.8 (**Application Document APP-090**) '*No field surveys were undertaken to inform this factual report. This approach is deemed appropriate when considering the desk study information available and the potential impact on bird species from the project (Esso, 2018). Impacts associated with pipeline installation are well understood and predictable. Impacts to breeding birds could arise through mortality/injury; habitat loss/gain, fragmentation or modification; or disturbance. Field surveys are not necessary to inform the valuation or impact assessment for breeding birds as good practice measures are proposed that would be sufficient to reduce the risk of impacts to birds'*. 1.2 On this basis it is felt that the findings of the impact assessment in relation to birds is reliable. 1.3 The following project commitments, as set out in the Register of Environmental Actions and Commitments (REAC) in ES Chapter 16 (**Application Document APP-056**) would avoid impacts and breaches in legislation afforded to birds:

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		• Commitment G35: '*Bird Breeding Season: The assumption would be that vegetation with the potential to support bird nests would not be removed during the breeding bird season (March to August inclusive). If any works become necessary during the breeding bird season, works would be supervised by an ECoW. Appropriate protection measures would be put in place should active nests be found. These would include exclusion zones around active nests until chicks fledge or nests become inactive as determined by monitoring by the ECoW*.' • Commitment G43: *'The contractor(s) would comply with relevant protected species legislation including with regards to badgers, bats, dormice, otters, water voles, sand lizards, GCN and Schedule 1 birds. Appropriate licences would be obtained where necessary from Natural England for all works affecting protected species as identified by the Environmental Statement and through pre-construction surveys. All applicable works would be undertaken in accordance with the relevant mitigation requirements and conditions set out in those licences.*' • Commitment G38: '*Thames Basin Heaths SPA: Potentially disturbing construction works within the Thames Basin Heaths SPA would be undertaken between 1 October and 31 January unless otherwise agreed with Natural England. This would apply to the areas identified in Figures 9.9, 9.10 and 9.11 within the HRA [APP-130 and APP-131].'* 1.4 In addition, section 3 Matters Agreed in the Statement of Common Ground between the Applicant and Natural England (**REP1-005**) specifically states '*That it was appropriate to exclude breeding birds from the field survey strategy as a result of the desk-based survey and the mitigation and good practice measures that would be implemented*'.

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BIO.1.6	Chapter 7 of the ES [APP-047] states that a programme of post-construction monitoring and objectives/targets for designated ecological sites, would be agreed and implemented in accordance with DCO requirements (ref. G47 in CoCP/REAC), although specific details of this are not provided. i) Provide further details of which designated ecological sites are intended to be monitored; for what purpose; how the effectiveness of the proposed measures would be monitored; and in the event that proposed measures should fail or underperform, the triggers for any remedial/adaptive measures. ii) Explain which bodies would be involved in agreeing the monitoring and objectives/targets for designated sites.	1.1 Commitment G47 states, '*A programme of post-construction monitoring and objectives/targets for designated ecological sites, would be agreed and implemented in accordance with DCO requirements.*' In addition, commitment G92 states that '*A three-year aftercare period would be established for all mitigation planting and reinstatement'*. These commitments would be secured by DCO Requirement 5 (CoCP), DCO Requirement 8 (Hedgerows and trees), DCO Requirement 12 (Landscape and Ecological Management Plan - LEMP) and DCO Requirement 13 (Protected Species). 1.2 In answer to i), the Applicant has identified the following designated ecological sites which would receive post construction ecological monitoring against objectives/targets: • Bourley and Long Valley SSSI; • Colony Bog and Bagshot Heath SSSI; • Chobham Common SSSI/NNR; and • Chertsey Meads LNR. 1.3 Chertsey Meads LNR is included as it was formerly a SSSI, and as discussed in Environmental Statement Chapter 7 (**Application Document APP-047**), the site supports nationally scarce and rare, locally scarce and red-listed species while still containing SSSI selection criteria for vascular plant assemblages. Chertsey Meads is therefore valued 'high' (same value as SSSIs). 1.4 The LEMP would set out how the effectiveness of the proposed measures would be monitored. It would also set out the adaptive measures should the proposed measures fail or underperform. 1.5 In answer to ii), the programme and content of post construction monitoring would be agreed with Natural England and recorded within the LEMP.

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BIO.1.7	The EA in its RR [RR-239] notes the absence of an "Environmental Investment Programme Report" from the Application documents (which it understood from pre-application discussions with the Applicant would demonstrate environmental net gain commitments) and requests confirmation from the Applicant as to whether the Proposed Development would deliver a net gain. A similar point is raised by Natural England (NE) in [AS-030]. Respond.	1.1 The application is preparing an Environmental Investment Programme (EIP) which will be reported in an Environmental Investment Programme Report. 1.2 The EIP comprises a range of activities along the replacement pipeline route to carry out localised environmental improvements and enhance local biodiversity within environmentally designated sites and/or areas of social/community importance over and above what is required by planning policy. 1.3 A report summarising the activities included as part of the EIP is currently in production and is subject to agreement with selected stakeholders. The Applicant intends to publish a draft version of the EIP report on its website (www.sllpproject.co.uk) by the end of 2019. It should be noted that the content of this report is based on negotiated voluntary agreements and is an approach deemed suitable by stakeholders including Natural England. 1.4 The EIP report is not an application document as there is no statutory requirement for Nationally Significant Infrastructure Projects (NSIPs) to deliver net gain, or biodiversity enhancement. The Department for Environment, Food and Rural Affairs published its response to a consultation on net gain in July 2019. This document states on page 5 that '*nationally significant infrastructure and net gain for marine development will remain out of scope of the mandatory requirement in the Environment Bill*'. 1.5 Please refer to paragraphs 1.2 to 1.15 within WQ.A.BIO.1.13 for further information regarding EIP and net gain. 1.6 Environmental impacts are identified in the Environmental Statement and appropriate mitigation is set out in Chapter 16 of the Environmental Statement and the REAC (Application Document **APP-056**). However, the Applicant recognises that construction of the replacement pipeline would still be outside of 'everyday activities or use' of the environmentally and social valued areas that the route travels through. As a good neighbour and responsible operator, the Applicant is developing the EIP, in order to contribute to the communities who may be affected by the replacement pipeline. The EIP will remain outside the application for development consent.

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		1.7 In paragraph 2.2.2 of the signed Statement of Common Ground between the Applicant and Natural England (**REP1-005**) it is agreed that 'Although not considered to be an examination issue, the Parties will continue to engage on the voluntary Environmental Investment Programme and intend for the broad scope of this programme to be agreed shortly'. The Applicant has proposed similar text in the Statement of Common Ground with the Environment Agency (**Document Reference 8.4.01**). As noted the EIP comprises activities focussed on environmental improvements, however given there is no statutory requirement to provide net gain for NSIPs, the EIP will not be submitted as part of the application documentation but will be made available on the Applicant's website document library on completion.
BIO.1.8	Fish rescues are proposed at any watercourse crossings that would require isolation and dewatering (as per mitigation measure G49 in the CoCP [APP-128]). The EA note that appropriate permissions would be required from the EA for this and a suitable contractor appointed. The need for such permissions is not acknowledged in the Application documentation [G49, APP-128], whereas the need for other types of wildlife licence is – e.g. [G43, APP-128] explains that appropriate wildlife protected species licences would be sought from NE.	1.1 Commitment G49 states that '*a fish rescue would be undertaken at any watercourse crossings that would require isolation and dewatering, to prevent fish being trapped, injured or killed during dewatering. Fish would be returned to suitable habitat on the same water body unaffected by the works*.' The existing commitment will be amended to state that *'an experienced contractor would undertake the work, and if required, appropriate authorisation will be obtained from the Environment Agency for such a rescue'*. This updated wording is provided in the updated Code of Construction Practice (**Document Reference 6.4 Appendix 16.1 (2)**). This is in accordance with commitment G44 which states that *'the project would be run in compliance with all relevant legislation, consents and permits'*.

ExQ1	Question:	Applicant response to Question:
	Respond, ensuring that the need to obtain appropriate fish rescue licences from the EA and to appoint a suitable contractor is reflected in the CoCP.	
BIO.1.9	i) Explain how dewatering and over pumping works would not prevent movement of fish species. ii) Explain how provision of appropriate screening during any over pumping would be secured through the draft DCO, to prevent the entrainment and death of eels and fish.	1.1 In answer to i and ii), the project approach is to avoid the dewatering of watercourses, thereby negating the requirement for pump screening, managing temporary over pumping scenarios and the risk of entrainment of fish and eels. Instead, the Applicant would maintain watercourse connectivity through the fluming of watercourses during construction.
BIO.1.10	The assessment of construction disturbance to fish presented in ES paragraphs 7.5.755 to 7.5.759 [APP-047] appears to have been undertaken on a qualitative basis. To support the assessment conclusion that the effect would be "of minor adverse significance", explain further: i) How underwater noise, vibration and lighting levels have been predicted, with reference to	1.1 In answer to i), no quantitative noise and vibration assessment has been undertaken relevant to aquatic receptors. The assessment has been undertaken on a qualitative basis using technical knowledge of the likely effects based on similar schemes. The Applicant considers this to be proportionate to both the scale and the duration of the works at any particular watercourse crossing. 1.2 The short-term duration of the works and the application of standard good practice measures is considered sufficient to reduce effects to minor/not significant, based on technical judgement. 1.3 Paragraph 7.5.758 in Environmental Statement (ES) Chapter 7 (**Application Document APP-047**) states that '*Good practice measures would be employed to avoid or reduce these effects. Appropriate buffer zones would be established within the Order Limits adjacent to identified watercourses (*[commitment] *G39). Lighting would be of the lowest luminosity necessary for safe delivery of each task. It would be designed, positioned and directed to*

ExQ1	Question:	Applicant response to Question:
	the different types of construction activities. ii) What assumptions have been made regarding the thresholds at which disturbance would occur. iii) Has the assessment been informed by any relevant scientific literature? Taking account of these points, the Applicant is also requested to comment on whether there is a need for timing restrictions for trenchless crossings to protect salmonids, as referenced in the EA's RR [RR-239].	*reduce the intrusion into adjacent properties and habitats (G45)'*. These measures would avoid or reduce the effects of disturbance from noise and lighting during construction, to fish. 1.4 Paragraph 7.5.744 in ES Chapter 7 (**Application Document APP-047**) states that trenchless crossings would be proposed for the most sensitive fish habitats, whilst Paragraph 7.5.747 describes seasonal constraints proposed to further avoid potential effects on sensitive fish communities. 1.5 In answer to ii), as outlined above, the assessment has been based on a qualitative assessment and therefore the thresholds have been based on technical judgement based on knowledge of other schemes. No high noise or vibration-creating activities are proposed for the project, for example percussive or impact piling. Therefore, there are unlikely to be significant noise and vibration levels propagating into the watercourse through intrusive ground works. 1.6 Airborne noise, such as that generated by the operation and movement of plant, the operation of generators, or use of the haul road may result in temporary and highly localised disturbance to aquatic receptors. However, as water has a higher acoustic impedance than air, attenuated airborne noise would not be expected to significantly affect aquatic receptors. 1.7 In answer to iii), very few published data examine the effects of vibration from trenchless crossings on fish. '*Noise from* [Horizontal Directional Drilling] *HDD and other trenchless river crossings is audible but not significantly greater than background noise levels, and* […] *there is reasonable confidence that noise from HDD is highly unlikely to cause noise levels to exceed the thresholds for continuous noise given in Popper et al (2014)'* (Subacoustech, pers comm. 2019). 1.8 It is therefore considered that the likelihood of trenchless crossings using HDD causing a significant impact on freshwater fish is low and there is no requirement for specific seasonal constraints on trenchless crossings for salmonids.

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BIO.1.11	Paragraph 7.2.4 of Chapter 7 of the ES [APP-047] states that a desk study involved the collection of existing records within a minimum 1km radius from the Order Limits. Explain the basis on why the 1km radius was chosen.	1.1 As stated in paragraph 7.2.4 in Environmental Statement (ES) Chapter 7 (**Application Document APP-047**), the desk study corridor of a *minimum of 1km* from the edge of the preferred corridor was considered sufficient based on the temporary and localised nature of pipeline construction. 1.2 As stated in paragraph 7.2.5, '*The geographical extent of the desk study was modified accordingly for specific receptors e.g. statutory designated sites downstream of watercourse crossings that are potentially sensitive to hydrological change, or statutory designated sites notable for the presence of mobile species that may use habitats within the Order Limits*'. 1.3 The Statement of Common Ground between the Applicant and Natural England (**REP1-005**) states '*That the methodology used in the ES for the prediction and assessment of effects on biodiversity assets is appropriate*'.
BIO.1.12	Paragraph 7.2.27 of Chapter 7 of the ES [APP-047] states that the criteria for determining the value of ecological receptors shown in Table 7.4 have been adapted from the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines. Explain the criteria adapted and in what way.	1.1 Paragraph 7.2.27 of Environmental Statement (ES) Chapter 7 (**Application Document APP-047**) relates to the methodology of determining value/sensitivity of ecological receptors. 1.2 Paragraph 4.7 in the Chartered Institute of Ecology and Environmental Management Guidelines (CIEEM, 2018) sets out how a geographical context e.g. International, National, County, Local, can be used to determine value or importance of a feature. 1.3 Typically, a biodiversity assessment takes the value of receptors based on a geographical context (international/national/local etc.), the other disciplines for the project do not, and instead rate them as high/medium/low/negligible. In order to standardise the assessment across the disciplines, allowing comparability, the biodiversity assessment was adapted by modifying the CIEEM guidance using best practice guidance published by Highways Agency (2010) to produce Table 7.4 of ES Chapter 7 (**Application Document APP-047**) which details the adapted criteria.

ExQ1	Question:	Applicant response to Question:
BIO.1.13	In Table 7.6 of Chapter 7 of the ES [APP-047] reference is made to meetings with NE and Surrey Wildlife Trust (SWT) on 23/24 July 2018. Bullet point 3 refers to NE's advice that the project should seek to deliver a "biodiversity net gain". Similarly, in its RR [RR-239] the EA reiterates its ambition for the project to deliver an overall net gain in biodiversity in line with recent updates to the National Planning Policy Framework (NPPF) and in line with the Government's 25 Year Environment Plan. Rushmoor Borough Council in its RR [RR-293] also sets out an expectation for the Applicant to demonstrate biodiversity net gain. i) Explain the response to these requests and if a biodiversity net gain has not been secured, why not. ii) Bullet point 4 of Table 7.6 refers to potential habitat enhancement opportunities at Bourley and Long Valley Site of	1.1 In answer to i), full schedules of meetings with Natural England and Surrey Wildlife Trust are contained in their respective signed Statements of Common Ground (**REP1-005 and REP1-004)** respectively at section 2. This includes the site meetings on 23/24 July 2018 referred to in the question. 1.2 Government policy is that biodiversity net gain does not apply to Nationally Significant Infrastructure Projects (NSIPs) and indeed a DCO cannot provide for it as it would not comprise associated development nor qualify as the subject of a requirement or s106 agreement as it is not 'necessary'. Nevertheless, the project is pursuing an Environmental Investment Programme (EIP) outside the planning process and has made various commitments to other parties that have the effect of providing net gain. 1.3 The background is that in December 2018 the Government consulted on its proposals for Biodiversity Net Gain in a document titled '*Net Gain Consultation Proposals*'. https://consult.defra.gov.uk/land-use/net-gain/supporting_documents/netgainconsultationdocument.pdf Text on page 26 of this document states '***While marine planning and licensing policy and nationally significant infrastructure projects are not in scope of this consultation****, we are considering how to best support and mainstream the net gain approaches that many infrastructure and marine projects are already taking*'. There is a related footnote on page 5 of the document and text on page 21 which also state that '*Nationally significant infrastructure or other development not requiring planning permission is not in scope*'. 1.4 The Government were, therefore, clear that NSIPs were not in scope for the consultation on introducing net gain into the planning system. 1.5 In July 2018 the Government published its response to the consultation and also updated the National Planning Policy Framework (NPPF) in its response to consultation, titled '*Net Gain Summary of Responses and Government Response*' https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/819823/net-gain-consult-sum-resp.pdf. On page 5 of that document it stated '*Consultation proposals for a mandatory requirement did not include nationally significant infrastructure or marine projects. Whilst many respondents told us that these types of*

ExQ1	Question:	Applicant response to Question:
	Special Scientific Interest (SSSI). Explain where these are secured in the draft DCO [AS-059].	*development should be in scope of the mandatory requirement, following careful consideration the government believes that further work and engagement with industry and conservation bodies is required to establish approaches to biodiversity net gain for both marine and nationally significant infrastructure projects, which can have fundamentally different characteristics to other development types. Government will continue to work on exploring potential net gain approaches for these types of development, but* ***nationally significant infrastructure and net gain for marine development[3] will remain out of scope of the mandatory requirement in the Environment Bill****.' It is, therefore, clear that NSIPs are out of scope of the Government's net gain approach and the fact that the NPPF was updated in July to refer to net gain is neither important or relevant to the application given this clear statement of Government policy. 1.6 Furthermore, the draft Environment Bill was introduced to Parliament on 15 October 2019. The Bill can be found here: https://services.parliament.uk/Bills/2019-20/environment.html. Clause 88 indicates that schedule 15 of the bill makes provision for biodiversity gain to be a condition on the grant of planning permission. Schedule 15 amends the Town and Country Planning Act 1990 in respect of biodiversity gain. Neither clause 88 nor schedule 15 makes any reference to the 2008 Act or the NSIP regime. 1.7 Additionally, on 14 October 2019 members of the project team attended a presentation by Melanie Hughes who is Sustainable Development Director of Natural England. She agreed that where there was no reference to net gain in an NPS, then it could not be insisted upon and thus it was Natural England's approach to seek voluntary agreements. 1.8 The project team has significant doubts as to whether net gain can be secured for NSIPs. This is because given the lack of a policy or legal driver, it would not be possible to compulsorily acquire land for such a purpose, nor would it be possible to complete a planning obligation or impose a requirement because in each case the relevant legal tests are not met. 1.9 As noted above it is the project's position to negotiate voluntary agreements under its Environmental Investment Programme. This approach is consistent with that of Natural England.

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		1.10 The project is, therefore, consistent with Government Policy in light of the fact that there is no policy or legal requirement for it to provide any form of biodiversity gain. It is working on environmental improvements but is not putting these forward to be secured through the planning process as they do not meet the test of being 'necessary' for the application to proceed. 1.11 In answer to ii), the habitat enhancement opportunities at Bourley and Long Valley SSSI are captured in the Environmental Investment Programme and are not secured through the draft DCO (**Document Reference 3.1 (3)**) as there is neither a legal requirement for this nor an ability for it to be included in a DCO. To be clear, these are not off-setting or mitigation measures. 1.12 Notwithstanding the above, within heathland SSSIs such as this, the project has committed under HRA 2 of the Register of Environmental Actions and Commitments (Section 16.3, **Application Document APP-056**) that where scrub and secondary woodland have been removed, subject to landowner consent, these areas would be reinstated as heathland or acid grassland through natural regeneration.
BIO.1.14	Confirm that paragraph 7.5.191 of Chapter 7 of the ES [APP-047] should reference A7.1.145 instead of A7.1.96 in the Figure in Appendix 7.1.	1.1 The correct habitat survey figure reference for paragraph 7.5.191 of Environmental Statement (ES) Chapter 7 (**Application Document APP-047**) should be A7.1.147 Sheet 4 of 4 of ES Appendix 7.1 Habitats and Botany Factual Report (**Application Document APP-081**), instead of A7.1.96. 1.2 The figure number suggested in the Question, Figure A7.1.145 (**Application Document APP-081**), is an overview of Colony Bog and Bagshot Heath Site of Special Scientific Interest showing the individual surveyed subsites, which includes Turf Hill.
BIO.1.15	In Appendix 7.10 of Consultation Report – Route Release [APP-038] reference is made to Sub-Option F1c affecting a Biodiversity Opportunity Area.	1.1 In response to i), the Applicant's information sheet about Red Road and Turf Hill within Appendix 7.10 of the Consultation Report (**Application Document APP-038**) stated that responses to the Preferred Route (first statutory) Consultation raised that '*F1c would go through a Biodiversity Opportunity Area where habitats can be created*'.

ExQ1	Question:	Applicant response to Question:
	i) On what basis has the Biodiversity Opportunity Area been designated and over what area does it exist. ii) Provide these details on a map.	1.2 Biodiversity Opportunity Areas (BOAs) are not necessarily designated for their existing biodiversity features but are areas where there is the greatest potential for restoration and the creation of habitats. BOAs represent '*areas where improved habitat management, as well as efforts to restore and re-create Priority habitats will be most effective in enhancing connectivity to benefit recovery of Priority species in a fragmented landscape. They are therefore the basis for achieving a coherent and resilient ecological network in Surrey*' (Surrey Nature Partnership, *Biodiversity Opportunity Areas: the basis for realising Surrey's ecological network*, December 2015, https://surreynaturepartnership.files.wordpress.com/2014/11/biodiversity-opportunity-areas_surrey-nature-partnership_20151.pdf). 1.3 BOAs in Surrey were identified using Surrey Nature Partnership's *Boundaries of the Surrey Biodiversity Opportunity Areas (BOAs) as adopted by the Surrey Nature Partnership* (December 2014, https://www.surreycc.gov.uk/__data/assets/pdf_file/0006/82275/Surrey-LCA-2015a-appendix-A.pdf). Paragraph 7.3.26 of the Applicant's Scoping Report (**Document Reference AS-019**) states that '*in Surrey, the Order Limits cross the Thames Basin Heaths BOA. This site is valued as negligible but its presence and objectives would be considered when identifying biodiversity enhancement opportunities associated with the Project*.' 1.4 In response to ii), Sub-option F1c falls under the Thames Basin Heath BOA for Colony Bog, Bagshot Heath and Deepcut Heaths, as outlined in Appendix 4 of Surrey Nature Partnership's *Biodiversity Opportunity Areas: the basis for realising Surrey's ecological network* (December 2015, https://surreynaturepartnership.files.wordpress.com/2014/11/appendix-4_thames-basin-heaths-biodiversity-opportunity-area-policy-statements.pdf). A detailed map of the BOA in the area can be found on page 5.

ExQ1	Question:	Applicant response to Question:
BIO.1.16	Respond to the National Trust's RR [RR-091] which raises concerns regarding the tree survey work, with particular reference to highlighting those trees that would need to be removed in relation to the Hinton Ampner Estate and Joan's Acre Wood specifically.	1.1 The Applicant has undertaken arboricultural surveys on site following the survey methodology set out within Appendix 3 of the Scoping Report (**Document Reference AS-019**). Paragraph 4.2.1 states that the aim of the arboricultural surveys was '*to capture tree data on woodlands, veteran/ancient trees and notable/mature trees that are likely to be lost or affected by the Project. The approach ensures an efficient and pragmatic approach to tree data collection, to provide category and definition criteria together with information to provide adequate tree protection during the construction phases'.* 1.2 The Applicant has undertaken detailed site surveys in key areas in accordance with BS5837:2012 *Trees in relation to design, development and construction.* The results of this survey work would be used to inform the future detailed alignment routeing around root protection areas. 1.3 The Order Limits lie outside the boundary of Joan's Acre Wood and therefore no trees would be removed at this location. 1.4 A few non-notable trees connected to Joan's Acre Wood may require removal. 1.5 An arboricultural survey in accordance with BS5837:2012 *Trees in relation to design, development and construction,* has been undertaken in this area to inform the future detailed alignment routeing around root protection areas. Commitment G65 states that '*Working widths would be reduced in specific locations where trees or hedges are present. Where notable, TPO, Ancient Woodland and veteran trees would be retained within or immediately adjacent to the Order Limits, the trees and their root protection areas would be protected where they extend within the Order Limits and are at risk. This would be by means of fencing or other measures.'*
BIO.1.17	Respond to Surrey Heath Borough Council's RR [RR-093] which raises comments regarding request for additional information regarding the	1.1 The Applicant recognises the benefits of trees and the wider value trees provide to the environment in terms of providing habitat and visual screening. This is assessed within the Environmental Statement (ES), particularly in ES Chapter 7 Biodiversity (**Application Document APP-047**) and ES Chapter 10 Landscape and Visual (**Application Document APP-050**).

ExQ1	Question:	Applicant response to Question:
	potential impact of trees that would need to be felled.	1.2 The total number of trees to be removed during the construction phase has not been determined at this stage. This will be confirmed during the detailed design stage for the project, once the contractor has been appointed. 1.3 The Applicant has undertaken arboricultural surveys following the survey methodology set out within Scoping Report Appendix 3 Chapter 4 (**AS-019**), which is in accordance with British Standard BS 5837:2012 *Trees in relation to design, development and construction*. The results of this survey work would be used to inform the future detailed alignment to route around the root protection areas of designated trees, where practicable. This survey has already been undertaken in the vicinity of Turf Hill and the results have been shared with local residents impacted and Surrey Heath Borough Council for information. 1.4 Further commitments set out within the REAC in ES Chapter 16 (**Application Document APP-056**) that relate to trees, include the following: • Commitment G87 states '*Vegetation clearance, retention, protection and replanting/ reinstatement drawings would be produced prior to the construction phase. The contractor(s) would implement these plans including agreed mitigation where practicable'*; • Commitment G91 states '*The contractor(s) would retain vegetation where practicable and in accordance with, as a minimum, the vegetation retention drawings'*; • Commitment G93 states '*Hedgerows, fences and walls would be reinstated to a similar style and quality to those that were removed, with landowner agreement'*; and • Commitment G97 states: '*Where woodland vegetation is lost and trees cannot be replaced due to the restrictions of pipeline easements, native shrub planting approved by Esso would be used as a replacement'*.

ExQ1	Question:	Applicant response to Question:
BIO.1.18	Confirm that there would be a buffer zone of 15m around all areas of Ancient Woodland during construction and if this is not the case, what measures would be proposed to ensure that these areas would not be subject to noise or dust pollution during construction [RR-287]. N.B – There is an overlap between this question and questions BIO.1.20 and LV.1.23 you may therefore wish to provide a combined response to these questions.	1.1 The Applicant has prepared a Technical Note on Ancient Woodland and Veteran Trees which sets out the project approach to reduce the impacts of the project on ancient woodland and potential ancient woodland within 15m of the Order Limits (see **Document Reference 8.15**) submitted at deadline 2. This follows a hierarchy, ranging from the use of buffers and ground protection around ancient trees and woodland, to the requirement for specialist construction techniques to be used for any unavoidable excavation within root protection areas. The project had regard to the standing advice from the Forestry Commission and Natural England (*Ancient woodland, ancient trees and veteran trees: protecting them from development*, 2018) when developing the hierarchy of mitigation principles. This approach to ancient woodland and veteran trees would be secured by being appended to the Code of Construction Practice (**Document Reference 6.4 Appendix 16.1 (2)**). 1.2 The Applicant is aware of two locations where a buffer of 15m from Ancient Woodland cannot be achieved. **Noise and dust** 1.3 Dust is assessed within Environmental Statement (ES) Appendix 13.2 (**Application Document APP-120**). This follows the process set out in guidance produced by the Institute of Air Quality Management and assesses the effects on sensitive ecological receptors including ancient woodland. The assessment concludes that with the adoption of standard good practice measures there are not expected to be any significant effects to ecological receptors (paragraph 1.6.15). The good practice commitments are listed in Table 1.3 of ES Appendix 13.2 (**Application Document APP-120**) and include commitment G30 which states that a dust management plan would be produced. 1.4 Noise impact on ecological receptors is assessed within ES Chapter 7 Biodiversity (**Application Document APP-047** with regards to species using areas of woodland, including bats (paragraphs 7.5.698 to 7.5.702) and dormice (paragraphs 7.5.737 to 7.5.739). The assessment concluded there would be no significant effects to protected species due to noise.

ExQ1	Question:	Applicant response to Question:
BIO.1.21	Paragraph 7.3.90 of the ES [APP-047], which is within the section of the ES considering bats, refers to ground level tree assessments of approximately 1,300 trees. Reference is also made to the assessment of 582 trees within 10m of the Order Limits. i) Explain the basis on which the 1,300 trees were identified and over what area did they extend. ii) Of the 582 trees within 10m of the Order Limits, explain how many are within the Order Limits themselves, and where such information is recorded.	1.1 In answer to part i) of the Question, Section 2.3 of Environmental Statement (ES) Appendix 7.7 (**Application Document APP-087**) sets out the scope of the field surveys for bats. 1.2 The programme of field surveys started before the Order Limits were finalised. The original study area was based on a 10m survey area around the Preferred Corridor. Desk studies and aerial photographs were used to identify potential trees for site survey. The desk study identified approximately 1300 trees 10m of the Preferred Corridor. These were subsequently field surveyed and were included in the factual reporting for completeness. 1.3 In answer to part ii) of the Question, paragraph 3.2.1 in ES Appendix 7.7 (**Application Document APP-087**) states that *'in total, approximately 1,262 trees have been assessed. Of these, 582 fall within 10m of the Order Limits. All 582 of these trees were subject to preliminary ground-level surveys between February 2018 and March 2019'*. Eighty-eight trees with high, moderate or low bat roost potential were recorded within the Order Limits. These results are presented in ES Appendix 7.7 (3 of 3) (**Application Document APP-089**).
BIO.1.23	i) Where replacement trees are proposed, explain on what basis replacement trees have been determined in terms of species and age. ii) Explain how they would be secured through the draft DCO [AS-059].	1.1 In answer to i), the Applicant is not expecting to remove all trees within the Order Limits. The Applicant cannot yet confirm the number of trees that would need to be removed because the detailed construction design necessary to determine the precise location of the replacement pipeline is not required to support the application for development consent. This is normally undertaken prior to construction and as part of the detailed design work on the eventual alignment of the pipeline. If the Applicant is granted development consent the pipeline could be installed anywhere within the limits of deviation. This flexibility is required in order to deal with unforeseen ground conditions and local features. 1.2 Therefore, the Applicant does not currently know which trees would require replacing. These details, along with species and age, would be set out within the Landscape and

ExQ1	Question:	Applicant response to Question:
		Ecological Management Plan (LEMP), which would be submitted to and approved by the relevant Local Planning Authority (Requirement 12 of the draft DCO, **Document Reference 3.1 (3)**). 1.3 The age of proposed replacement trees would be appropriate to the type of planting and location. For example, native tree planting would typically comprise two-year-old transplant planting because this type of planting tends to establish more effectively than larger plant stock. 1.4 In answer to ii) and in relation to specific commitments on replacement planting, these would be secured through the following REAC commitments (**Application Document APP-056**): • G87: '*Vegetation clearance, retention, protection and replanting/reinstatement drawings would be produced prior to the construction phase. The contractor(s) would implement these plans including agreed mitigation where practicable.'* This would be secured by DCO Requirements 8 (Hedgerows and Trees) and 12 (LEMP). • G88: *'Where possible, reinstatement of vegetation would generally be using the same or similar species to that removed (subject to restrictions for planting over and around pipeline easements).'* This would be secured by DCO Requirements 6 (CEMP)), 8 (Hedgerows and Trees) and 12 (LEMP). • G97: *'Where woodland vegetation is lost and trees cannot be replaced due to the restrictions of pipeline easements, native shrub planting approved by Esso would be used as a replacement.'* This would be secured by DCO Requirements 5 (CoCP) and 12 (LEMP). 1.5 Requirement 8 states that *'the reinstatement of all hedgerows and trees must be undertaken in accordance with a written plan of reinstatement…* [which] *must form part of the Landscape and Ecological Management Plan approved in accordance with Requirement 12'*. Requirement 12 states that *'no stage of the authorised development must commence until… a written Landscape and Ecological Management Plan reflecting the…*

ExQ1	Question:	Applicant response to Question:
		measures included in the REAC…has been submitted to and approved by the relevant planning authority'. 1.6 In relation to specific commitments on replacement planting, these would be secured through the REAC (**Application Document APP-056**) as outlined above.
BIO.1.24	Chapter 7 of the ES [APP-048] confirms that a desk study was used to identify Invasive Non-Native Species (INNS), with no specific surveys undertaken (although incidental records of INNS have been noted during botany and ecological surveys). In the absence of specific survey data for INNS, explain the confidence which can be placed in measures including G42 in the REAC [APP-056] and the CoCP [APP-128] in identifying and controlling the spread of plant INNS.	1.1 Environmental Statement (ES) Appendix 7.4 (**Application Document APP-084**) details the desk study and field survey undertaken for Invasive Non-Native Species (INNS). A risk assessment for the presence of INNS was undertaken using this information, identifying high risk areas (i.e. where INNS were known to have been be recorded). In addition, commitment G33 states that '*Pre-construction surveys would be completed if existing baseline survey data need to be updated or supplemented'*. Furthermore, commitment G3 states that '*A suitably experienced Environmental Manager would be appointed for the duration of the construction phase. A qualified and experienced Environmental Clerk of Works (ECoW) would be available during the construction phase, to advise, supervise and report on the delivery of the mitigation methods and controls outlined in the CEMP. The ECoW would be supported as necessary by appropriate specialists'*. As such, there is a high level of confidence in the measures proposed in Chapter 16 of the ES (**Application Document APP-056**). 1.2 The Statement of Common Ground with Natural England (**REP1-005**) states '*That the scope and methods of the ecological surveys are appropriate*' and '*That the mitigation proposed in Chapters 7 and 16 of the ES is appropriate, including monitoring procedures, how mitigation will be secured in the DCO, the content of the Register of Environmental Actions and Commitments and the Code of Construction Practice, and in relation to the Construction Environmental Management Plan*'.
BIO.1.25	Rushmoor Borough Council in its RR [RR-293] raises concerns around the on-site storage and reuse of soil associated with INNS. The Council considers that	1.1 The Code of Construction Practice (CoCP) (**Document Reference 6.4 Appendix 16.1 (2)**) includes commitment G44, which states that '*the project would be run in compliance with all relevant legislation, consents and permits*.'

ExQ1	Question:	Applicant response to Question:
	any soil associated with INNS should be disposed of off-site as contaminated waste and that an INNS Strategy should be prepared and agreed before works commence. Comment on the potential need for these measures and explain how any such commitments would be secured through the draft DCO.	1.2 The Applicant has submitted a Protected and Controlled Species Legislation Compliance Report in Appendix 7.17 of the ES (**Application Document APP-101**) which provides information relating to the approach the Applicant is taking to non-native species. 1.3 The CoCP (**Document Reference 6.4 Appendix 16.1 (2)**) includes commitment G42 which states that *'The contractor(s) would provide a suitable method statement 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.'* 1.4 In addition, commitment G74 states that *'Excavation materials identified by the Watching Brief as being potentially contaminated and unsuitable for re-use within the project would be segregated from other material and transported off-site in suitable vehicles for off-site testing and subsequent disposal. Vehicles would contain and cover the materials to prevent loss of leachate, dust or other material during transport.'* A Soil Management Plan will be prepared, secured by DCO Requirement 6 (the CEMP). 1.5 These commitments will be secured through the discharge of Requirements in Schedule 2 of the draft DCO (**Document Reference 3.1 (3)**). The CoCP (**Document Reference 6.4 Appendix 16.1 (2)**) includes Table C1, the third column of which identifies the securing mechanism for each commitment. 1.6 The Applicant considers that no further measures are required to manage INNS.
BIO.1.26	Animal INNS are not considered within ES Chapter 7 [APP-048], on the basis that the Applicant considers the Proposed Development "has extremely limited potential to contribute to their introduction or spread" (paragraph 7.3.71 [APP-047]). It is noted that reference is made to	1.1 In answer to i), introduction or spread of animal invasive non-native species (INNS), via machinery, equipment or personnel during pipeline installation, would be highly unlikely. The statement in paragraph 7.3.71 in Environmental Statement (ES) Chapter 7 (**Application Document APP-047**) is based on the assumption that the introduction of animal INNS is considered extremely low and that if it were to happen it would probably be via introduction of invertebrate species within imported material. Given that no soil material is expected to be imported to site from elsewhere, the risk is extremely low. 1.2 As stated in paragraph 3.1.4 of ES Appendix 7.5 (**Application Document APP-085**), the Biological Records Centres data search carried out returned '*a single record of the invasive*

ExQ1	Question:	Applicant response to Question:
	a signal crayfish recorded at Frimley Bridge in Appendix 7.5: Aquatic Ecology Factual Report [APP-085]. It is also unclear from the REAC/CoCP what measures are proposed should any animal INNS be encountered, including any biosecurity measures. i) Justify the statement made at paragraph 7.3.71 with reference to the specific works that are proposed. ii) Clarify the point on animal INNS being encountered and explain how any such mitigation measures would be put in place and how these would be secured and delivered in the draft DCO.	*non-native species signal crayfish (Pacifastacus leniusculus) was reported from Frimley Bridge in 2009. No other non-native macroinvertebrate species were reported within 2km of watercourse crossing points of the Order Limits'*. 1.3 In answer to ii), commitment G44 states that '*the project would be run in compliance with all relevant legislation, consents and permits*'. Therefore, any requirements outlined in legislation regarding INNS would be undertaken on the project. In addition, the Applicant has made the following commitments which are relevant to animal INNS and which are outlined within the Register of Environmental Actions and Commitments within ES Chapter 16 (**Application Document APP-056**): • Commitment G39: '*Appropriate buffer zones would be established within Order Limits adjacent to identified watercourses'*. Secured by DCO Requirement 12 (LEMP). • Commitment G42: '*The contractor(s) would provide a suitable method statement 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'*. Secured by DCO Requirement 6 (CEMP) and 12 (LEMP). • Commitment G122: '*For open cut watercourse crossings and installation of vehicle crossing points, mitigation measures would include to…re-instate the riparian vegetation and natural bed of the watercourse using the material removed when appropriate on completion of the works and compact as necessary. If additional material is required, appropriately sized material of similar composition would be used.'* Secured by DCO Requirement 6 (CEMP).
BIO.1.27	Field surveys for bats have been limited to within 10m of the Order Limits. Provide further justification for the selected survey area and confirm how this	1.1 The impacts associated with pipeline construction are well documented. Impacts are typically localised and short term. As stated in paragraph 2.1.1 of Environmental Statement (ES) Appendix 7.7 (**Application Document APP-087**) '*The survey methodology is based on that described in the project's Scoping Report (Esso, 2018) and has also been informed by good practice guidelines (Collins, 2016); consultation and engagement with relevant consultees e.g. Natural England; the results of desk studies; and professional judgement'*.

ExQ1	Question:	Applicant response to Question:
	relates to the Zone of Influence for the Proposed Development.	1.2 Table 7.1 in ES Chapter 7 (**Application Document APP-047**) shows the pathway, source activity and zone of influence considered for each phase of the project. Specific impacts on bats are discussed in paragraphs 7.5.677 to 7.5.706. 1.3 The mortality/injury pathway to effect during the construction phase would likely have a zone of influence limited to within the Order Limits as physical interaction between project infrastructure, machinery or activities would be restricted to these locations. Habitat loss/gain would be restricted to within the Order Limits and to those areas cleared to make way for project infrastructure (including pipeline installation and temporary construction compounds). Fragmentation of retained habitats on either side of the Order Limits would occur during the period of clearance and reinstatement. Professional judgement has been used to assess potential disturbance impacts to bats, which were identified as noise and vibration, and lighting. 1.4 As the zone of influence for pathways to potential significant effects is largely restricted to within the Order Limits and the retained habitats either side of the Order Limits, the 10m survey buffer is considered appropriate. 1.5 Section 3 Matters Agreed in the Statement of Common Ground between the Applicant and Natural England (**REP1-005**) states '*That the scope and methods of ecological surveys were appropriate'.*
BIO.1.29	To the Applicant: Respond to the National Trust's [RR-091] concern that the bat survey information in relation to Hinton Ampner has not considered the trees that project out from Joan's Acre Wood which contain a rare bat species. To National Trust:	1.1 The project has surveyed potential bat roosts in the trees at Joan's Acre Wood (south east of Hinton Ampner), where they are located adjacent to the Order Limits. The results are presented in the Bat Factual Report in Environmental Statement (ES) Appendix 7.7 (**Application Documents APP-087**, **APP-088 a**nd **APP-089**), specifically paragraphs 3.1.4 and 3.1.8. The results indicated that the treeline connecting Joan's Acre Wood has a high value for bats. 1.2 The Applicant has adopted commitment G174 which states that '*Buildings, structures and trees within the Order Limits, confirmed to have high or moderate potential to support bats, that do not require removal, would be retained and protected with an appropriate buffer zone. Those that require removal and have high or moderate potential for bat roosts would be*

ExQ1	Question:	Applicant response to Question:
	Provide details of the species of bat involved.	*surveyed prior to their removal and either removed or removed under licence from Natural England if roosts are confirmed to be present'.* See Table 16.2 of ES Chapter 16 (**Application Document APP-056**).
BIO.1.30	Respond to the points raised by Surrey Heath Borough Council in its RR [RR-093], regarding the mitigation proposed for impacts to great crested newts in the Windlemere Suitable Alternative Natural Greenspace (SANG) area.	**Great crested newts in Windlemere SANG** 1.1 The Applicant can confirm that the great crested newt (GCN) ponds on Windlemere SANG are only inside the Order Limits in order to allow for the release of GCN in these locations as part of the project's environmental mitigation. More details can be found in paragraphs 3.39-3.310 of the GCN Factual Report (**Application Document APP-091(a)**). 1.2 The Applicant has also submitted draft EPS licences as part of the application for development consent (**Application Documents APP-094 to APP-100**). Natural England (NE) issued Letters of No Impediment (LONI) in respect of these draft EPS licences in April and May 2019, stating it is satisfied that the draft EPS licence applications demonstrate that the legal tests are capable of being met prior to the start of construction. The LONI can be found at the front of each of the draft EPS licences in **Application Documents APP-094, APP-095, APP-096 and APP-100**. 1.3 Commitment G43 in ES Chapter 16 (**Application Document APP-056**) states '*The Contractor(s) would comply with relevant protected species legislation with regards to badgers, bats, dormice, otters, water voles, sand lizards, great crested newts and Schedule 1 birds. Appropriate licences would be obtained where necessary from Natural England for all works affecting protected species as identified by the ES and through pre-construction surveys. All applicable works would be undertaken in accordance with the relevant mitigation requirements and conditions set out in those licences*'. See Table 16.2 of ES Chapter 16 (**Application Document APP-056**). 1.4 For the purposes of undertaking an appropriate assessment, the competent authority must consult the appropriate nature conservation body and have regard to any representations made by that body. The appropriate nature conservation body is NE in relation to the Habitats Regulations Assessment. NE in its submission to the Planning Inspectorate stated: '*Natural*

ExQ1	Question:	Applicant response to Question:
		England have no serious concerns with this application and will not be objecting to it' (**Additional Submission AS-030**).
BIO.1.31	Pond 57a in area 692 is proposed as a receptor area for translocated great crested newts. However, this pond has been established by allowing natural colonisation only. Provide information as to where the great crested newts would be translocated from and if these are to be located at a distance greater than 500m from the pond, how this could affect the existing colonies within the pond.	1.1 Great crested newt (GCN) Pond 57a in Upper Froyle is located within the Order Limits and is to be used as a receptor location for translocated GCN. GCN relocated to Pond 57a would originate from sites within the Order Limits and only from within 250m of Pond 57a. Newts would not be translocated to Pond 57a from anywhere else.
BIO.1.32	Froyle Wildlife in its RR [RR-190] highlights a number of errors in the Application documentation specifically in respect to great crested newts. Respond to these concerns	1.1 The relevant representation (**RR-190**) identifies that there is the potential to harm great crested newts (GCN) at Upper Froyle and that a European Protected Species (EPS) Licence would be required. In response to this point, a draft EPS licence for GCN is provided in Environmental Statement (ES) Appendix 7.15 (**Application Documents APP-096 and APP-097**). Natural England issued a Letter of No Impediment (LONI) on 30 April 2019, stating it is satisfied that the draft EPS licence demonstrates that the legal tests could be met prior to the start of construction. This can be found at the front of the draft EPS licence for GCN (**Application Document APP-096**). 1.2 The relevant representation (**RR-190**) also queried the use of Pond 57a as a receptor site for GCN and questioned where amphibians could be translocated from. 1.3 In response to this, the Applicant can confirm that GCN Pond 57a in Upper Froyle is located within the Order Limits and is to be used as a receptor location for translocated GCN. Newts

ExQ1	Question:	Applicant response to Question:
		relocated to Pond 57a would originate from sites within the Order Limits and only from within 250m of Pond 57a. Newts would not be translocated to Pond 57a from anywhere else. 1.4 The relevant representation also identified potential errors in the SU grid references in Table 16.1 on page 10, ES Chapter 16 (**Application Document APP-056**) for references D42, D44, D45 and D46. • D42: '*Further Widen the Order Limits and the limits of deviation to the west. To reduce impact on trees on the east side.*' The OS Grid reference given in the document is Ordnance Survey (OS) grid reference SU75937 42902. The Applicant believes this grid reference to be correct. • D44: '*Widen Order Limits to allow flexibility to avoid tree roots*.' The Applicant believes this grid reference to be correct. • D45: *'Use existing gaps in hedge to avoid mature trees'* The Applicant agrees there is an error and that the grid reference should be quoted as SU 76150 43049. • D46: *'Move Order Limits left to avoid woodland block which is a priority habitat*.' The Applicant agrees this grid reference is an error and should be SU 76976 44160. 1.5 The relevant representation (**RR-190**) also identified that some information was incorrect in Appendix 7.15 (**Application Documents APP-096** and **APP-097**). RR-190 states *'Pond 57a was not a mitigation pond as part of licence 2016-20026-EPS-MIT, only pond 55 created in 2015 was a mitigation pond. Pond 55 has now deteriorated'* (**RR-190**). This is referring to Section B1.2 of ES Appendix 7.15 (**Application Document APP-097**). In it the Applicant states '*The Order Limits at Upper Froyle, Hants (SU 7574 4260), pass close to a development that was subject to a GCN licence. According to MAGIC the licence reference is 2016-20026-EPS-MIT. Pond 57a, and possibly Pond 55, is believed to be a mitigation pond created in 2016 as part of the licence'*. 1.6 The Applicant gratefully accepts the new information provided by Froyle Wildlife and will submit an errata document during the examination. This information does not affect the

ExQ1	Question:	Applicant response to Question:
		conclusions of either the ES or the draft GCN Licence (**Application Documents APP-096 and APP-097**).
BIO.1.33	Confirm whether a watching brief for signs of water vole and otter would be maintained during construction and if so, how would this be secured through the draft DCO [AS-059].	1.1 As stated in Environmental Statement (ES) Appendix 7.12 (**Application Document APP-093**) paragraph 3.1.11, no evidence of water vole was found during field surveys at any of the watercourses surveyed. The habitats were recorded as being largely unsuitable or sub-optimal for this species. This assessment concluded that water voles were likely to be absent within the Order Limits and the riparian habitats within 200m either side of all watercourse crossing points (paragraph 4.2.5). 1.2 No otter couches or holts were identified during the 2018 field surveys (paragraph 3.1.10). No otter field signs (spraints/feeding remains) were recorded at any watercourses or water bodies to be intersected. However, all main river crossing points have habitat with the potential to support commuting and foraging otter with desk study identifying recent records on three main rivers. The minor watercourses had limited potential (Appendix 7.12 Riparian Mammals Factual Report APP-093). 1.3 The Applicant has the following commitments specific to water vole and otter, which would both be secured through Requirement 12 in the draft DCO (**Document Reference 3.1 (3)**), (Landscape and Ecological Management Plan (LEMP)) and Requirement 13 (Construction Environmental Management Plan (CEMP)): • G43: '*The contractor(s) would comply with relevant protected species legislation including with regards to… otters, water voles…. Appropriate licences would be obtained where necessary from Natural England for all works affecting protected species as identified by the Environmental Statement and through pre-construction surveys. All applicable works would be undertaken in accordance with the relevant mitigation requirements and conditions set out in those licences*'. • G197: '*Where there is evidence of water voles from pre-construction surveys, a class licence would be applied for where necessary, and the following methods would typically be implemented:*

ExQ1	Question:	Applicant response to Question:
		➢ *all burrows in the working area would be identified and marked;* ➢ *vegetation from within the working width (up to 5m either side of the trench) would be removed using a strimmer until only bare earth remains. The strimmed area would extend to the top of the bank and a further 2m beyond;* ➢ *all arisings from the strimmed area would be raked off and removed;* ➢ *the burrow entrances would be checked to ensure they have not become blocked;* ➢ *the strimmed area would be monitored on a daily basis during the works for field signs for water voles. Where field signs are recorded the need to repeat or extend the strimming would be reviewed;* ➢ *a destructive search would be carried out five days following strimming and if no evidence of water vole is recorded following a re-survey; and* ➢ *the area would be maintained as unsuitable for water voles as the works are carried out.* *It may be necessary to de-water the working area, if practicable and environmentally acceptable, prior to the destructive search*.' 1.4 In addition, the following commitments relate to the construction phase: • G3: *'A suitably experienced Environmental Manager would be appointed for the duration of the construction phase. A qualified and experienced Environmental Clerk of Works (ECoW) would be available during the construction phase, to advise, supervise and report on the delivery of the mitigation methods and controls outlined in the CEMP. The ECoW would be supported as necessary by appropriate specialists.'* This is secured through DCO Requirement 5 (Code of Construction Practice (**Document Reference 6.4 Appendix 16.1 (2)**). • G41: *'The ECoW would monitor that the works proceed in accordance with relevant environmental Development Consent Order requirements and adhere to the required mitigation measures. The ECoW would also be involved with any targeted additional*

ExQ1	Question:	Applicant response to Question:
		mitigation strategies that may be required.' This is secured through DCO Requirements 5 (CoCP) and 12 (LEMP). • The Applicant does not believe that a watching brief for signs of water vole and otter is currently required but this may change following the results of pre-construction surveys.
BIO.1.34	For open-cut crossings, timing restrictions would need to apply. The tributary of the River Hamble (WCX007), ditch leading to the tributary of the River Hamble (WCX006), Caker Stream (WCX012) and Ryebridge Stream (WCX021) would be subject to constraints between October to December and March to May [paragraph 7.5.747, APP-047]. The EA [RR-239] considers that the timing restrictions should apply for October to May inclusive to protect the egg and fry stages of life. The tributary of Cove Brook (WCX047) would be subject to constraints between March and May [paragraph 7.5.747, APP-047]. The EA [RR-239] considers that the timing restrictions should apply between March and July inclusive.	1.1 Commitment G171 is included within the Register of Environmental Actions and Commitments within Environmental Statement (ES) Chapter 16 (**Application Document APP-056**). This would be secured through DCO Requirement 12 (Landscape and Ecological Management Plan). G171 states '*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 Ryebridge 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'* 1.2 The commitment wording was specifically designed to protect the most sensitive period of fish spawning, in a proportionate manner to the habitats observed during the 2018 field surveys. 1.3 The timings were designed around standard seasonal restrictions in relation to fish: • Migratory fish period: October to December; • Migratory fish spawning: January to March; and • Coarse fish spawning: March to June. 1.4 The disturbance from in-channel works is predicted to impact a very small proportion of the total watercourse resource and, in the presence of the project's commitments outlined within the Register of Environmental Actions and Commitments, regarding pollution and sediment control, are unlikely to result in significant effects on water quality, quantity or habitat degradation. As discussed at the meetings with the Environment Agency regarding the

ExQ1	Question:	Applicant response to Question:
	Commit to the extended timing restrictions as recommended by the EA and if not, why not. Any such commitment should be reflected in updated versions of the relevant documents (including the CoCP [APP-128] and the REAC [APP-056] (ref. G171)).	project, the in-channel works from the open cut method are likely to be limited to a small number of days per crossing, and whilst the associated haul road may be in place for longer periods, channel connectivity will be maintained throughout. 1.5 Timing restrictions on the tributary of the River Hamble (WCX00), ditch leading to the tributary of the River Hamble (WCX006), Caker Stream (WCX012) and Ryebridge Stream (WCX021) are considered appropriate for these watercourses. All four crossing points are either ephemeral or hold little water during normal summer flow. As such these watercourses will provide limited adult fish habitat, opportunity for spawning or juvenile fish habitat of quality. Therefore, the project team considers that only protection of spawning periods is required in these locations, given the limited disturbance to in-channel habitats and poor habitat present. 1.6 The crossing of the tributary of the Cove Brook (WCX047) lies within Southwood Gold Course and was completely choked with emergent vegetation at the time of survey (summer 2018). It is unlikely that this location would be used by fish for spawning or juvenile life stages. Therefore, the existing commitment wording is considered to be sufficient with regards to this watercourse, given the value of the habitat present and short duration of the open cut crossing. 1.7 In conclusion, the project has reviewed the surveyed results for each watercourse as part of the review of the timings and considers the existing commitment wording for G171 to be sufficient for each watercourse, given the value of the habitat present.
BIO.1.35	ES Appendix 7.11: Reptile Factual Report [APP-092] includes Figures 7.11.1 and 7.11.2. No key appears to have been provided for either of these Figures. Explain what the Figures are showing.	1.1 A legend is provided on the right-hand side of each sheet of Figure A7.11.1 and A7.11.2, which explains what the figures are showing. 1.2 Paragraph 3.1.4 Environmental Statement (ES) Appendix 7.11 (**Application Document APP-092**) states that '*All desk study records and areas highlighted as having potential to support medium to high populations of common reptiles are shown in Figure 7.11.1.*' 1.3 The desk study results from Hampshire Biodiversity Information Centre display Ordnance Survey grid references of varying scales. These result in different sized records on the figure. Results returned by the Surrey Amphibian and Reptile Group reflect a direct record of an animal, hence the consistent and more detailed record locations. Field reptile surveys were

ExQ1	Question:	Applicant response to Question:
		completed within areas of habitat identified as having the potential to support moderate to high common reptile populations. The survey areas are outlined and the colour of the outline denotes the species recorded there. 1.4 Paragraphs 2.3.17 to 2.3.19 of ES Appendix 7.11 (**Application Document APP-092**) outline the approach to the reptile habitat suitability mapping, the results of which are shown on Figure 7.11.2. The rare reptile desk study and habitat survey results for heathland Sites of Special Scientific Interest are also shown. The desk study results from Surrey Amphibian and Reptile Group records are also shown on this figure. Each individual point is a direct observation.
BIO.1.36	Paragraph 7.5.182 of the ES [APP-047] states that the Order Limits within the Colony Bog and Bagshot Heath SSSI encompass a total area of 14.50ha. Paragraph 7.5.197 indicates that narrow width working within the SSSI would reduce the area of habitats impacted within the Order Limits from 15.24ha to 7.73ha. i) Explain why the total area (14.50ha) is smaller than the area impacted (15.24ha). ii) Explain whether the narrow working width applies to all of the SSSI and if not, why not. iii) Explain whether the narrow working width applies to all SSSIs	1.1 In answer to i), the value of 15.24ha is erroneous. The value given in paragraph 7.5.197 in Environmental Statement (ES) Chapter 7 (**Application Document APP-047**) should be 14.50ha rather than 15.24ha. 1.2 In answer to ii), as stated in paragraph 7.5.183 of ES Chapter 7 (**Application Document APP-047**), the narrow width working proposed for Colony Bog and Bagshot Heath Site of Special Scientific Interest (SSSI) '... *would be reduced-width working at all locations, with the working width being between 10m and 20m wide to reduce impacts to vegetation and soils*'. 1.3 ES Chapter 7 Figure 7.6 and Figure 7.7 (**Application Document APP-061**) detail the methods of proposed working (typical working strip cross section options), labelled A to I. Figures 7.8 to 7.12 show the locations of the proposed method of working, including indicative width of working, indicated using cross section labels A to I. Figure 7.11 of the ES (**Application Document APP-061**) shows the typical working strip cross sections proposed for Colony Bog and Bagshot Heath SSSI. These are B, D and F which have maximum working widths of 20m. 1.4 In answer to iii), three trenchless crossings (TC024, TC025 and TC026) are proposed in Chobham Common SSSI to cross areas of wetland. Figure 7.8 and 7.9 of the ES (**Application Document APP-061**) show the proposed working cross sections F, G, H and I. These have proposed narrow working widths of between 10m and 20m.

ExQ1	Question:	Applicant response to Question:
	crossed by the proposed pipeline and if not, why not.	1.5 The proposed working widths within Bourley and Long Valley SSSI are shown in Figure 7.12 of the ES (**Application Document APP-061**) indicating proposed cross sections E and F. While cross section working width F is limited between 10m and 20m, Section E is a standard working width of 30m. In these standard working width locations in Bourley and Long Valley SSSI, the potential to restore a larger area of dry heathland was seen as a benefit, improving the existing poor condition habitats. 1.6 Where habitat mitigation is proposed, these areas may be located beyond narrow width working areas.
BIO.1.37	The HRA report [APP-130] concludes that visual, dust and noise impacts would not act in-combination with impacts from proposals to expand the Heathrow Airport. The ExA understands that these proposals are in earlier stages of development and that detailed information may not yet be available on which to base the assessment. Explain what information has been used in order to support the conclusions reached and what (if any) assumptions have been made.	1.1 The baseline information about the Heathrow Expansion Project, was obtained from the Environmental Impact Assessment Scoping Report (Heathrow Airport Limited, May 2018) published on the Planning Inspectorate website. This was used along with technical knowledge of the likely effects based on similar schemes. 1.2 The distance from the project Order Limits and the Heathrow Expansion boundary is approximately 1km. The Habitats Regulations Assessment (HRA) Report (**Application Document APP-130 and APP-131**) makes clear that the effects resulting from the project would be very localised and short term in nature. Therefore, due to the distance between the two schemes and nature of the project, no in-combination impacts are anticipated.
BIO.1.39	Table 4.1 of the HRA report (APP-130) and (APP-131) identifies in respect to the Solent	1.1 Appendix D of the Habitats Regulations Assessment Report (**Application Document APP-130**) (Table D.1, pages 91-93) presents the Screening Matrix and supporting text used in relation to the Solent and Southampton Water SPA. Point e of the supporting text (page 92

ExQ1	Question:	Applicant response to Question:
	Special Protection Area (SPA), Special Area of Conservation (SAC) and Ramsar site the potential for generation of nutrient run-off during construction. However, this is not described in any detail in the screening assessment (Appendix D). Confirm whether the Proposed Development is likely to result in the release of additional nutrients into the system/ European sites.	of the document, or PDF page 133) provides detail of the potential effect pathway in relation to generation of nutrient runoff (e.g. via silting) and describes associated control measures. 1.2 The project is not likely to result in release of nutrients into the system/European site.
BIO.1.43	Respond to the points raised in Surrey Heath Borough Council's RR [RR-093] with regards to the potential adverse effects on the integrity of the Thames Basin Heaths SPA that would result from the Proposed Development's effect on the two SANGs (St Catherine's Road and Windlemere) within the borough.	1.1 The pipeline corridor and route selection processes evaluated various options based on guiding principles for the project. (See paragraph 4.6.2 of Environmental Statement (ES) Chapter 4 (**Application Document APP-044**). The project guiding principles were considered collectively and a balanced judgement made which resulted in the proposed pipeline route passing through the two Suitable Alternative Natural Greenspaces (SANGs), one large SANG on the old Windlemere Golf Course and a small non-strategic SANG at St Catherines Road. 1.2 The proposed replacement pipeline crosses both the Thames Basin Heaths Special Protection Area (SPA) and the SANGs designated by Surrey Heath Borough Council to mitigate the impact of residential development on the SPA. The Applicant assessed the impact of the project on open spaces and SANGs against the policy advice in the Overarching National Policy Statement for Energy EN-1 paragraphs 4.3.1 and 5.3.9; and National Policy Statement for Gas Supply Infrastructure and Gas and Oil Pipelines EN-4 paragraphs 2.21.1 to 2.21.3 (see Planning Statement **Application Document APP-132**). The impact on the SPA is addressed in the Habitats Regulations Assessment (HRA) Report (**Application Documents APP-130 and APP-131**).

ExQ1	Question:	Applicant response to Question:
		1.3 The Applicant has considered, assessed and reported in the HRA Report, the impact of construction works of the project in the SANGs and the potential displacement of people into the SPA. The Conservation Objectives for the SPA are defined by Natural England and described in Section 5.5 of the HRA Report (See **Application Documents APP-130 and APP-131**). 1.4 The Applicant has also worked with Natural England extensively on the project and has sought its advice on the HRA potential impacts of the project on the Thames Basin Heaths SPA. EN-1 requires an ES to set out any effects on internationally, nationally and locally designated sites of ecological importance (paragraph 5.3.3). EN-4 requires an Environmental Statement (ES) to assess the biodiversity effects of a proposed route (paragraph 2.21.3). The impact on the SPA is addressed in the HRA Report (**Application Documents APP-130 and APP-131**). The assessment has considered the knock-on effects of routeing through public open spaces, such as local SANGs and any transferred impact on to the Thames Basin Heaths SPA. Natural England has confirmed its satisfaction with the project's HRA, which was submitted as part of the application for development consent, and has not raised any issue with the HRA Report (see **Additional Submission AS-030**). Natural England has completed and signed a Statement of Common Ground with the Applicant which has been submitted (**REP1-005**). 1.5 Within the administrative area of Surrey Heath Borough Council (SHBC) the project crosses two SANGs, one at St Catherines Road and one at Windlemere. SHBC considers that, due to construction works of the project in the SANGs, this would displace users to the Thames Basin Heaths SPA, thereby having a potential impact on the integrity of the SPA regarding its ecological functions as defined by the European Site Conservation Objectives. 1.6 The HRA Report (**Application Document APP-130**) assesses the impact on the Thames Basin Heaths SPA. It states in the HRA Report Part 1 on page 3 that (Executive Summary): '*The short duration and limited extent of works within affected Suitable Alternative Natural Greenspaces (SANG) is considered to reduce the risk of significant levels of recreational displacement to the SPA. Information presented in this report about each SANG impacted by the project and the presence of alternative unaffected spaces within 5km of affected sites*

ExQ1	Question:	Applicant response to Question:
		further establishes a low risk of significant recreational displacement occurring. Any effects experienced are anticipated to be minor as the relative impact of a marginal increase in visitor numbers to existing footpaths on the SPA would be small. As such, no impacts are predicted that could result in an adverse effect to the site's integrity'. 1.7 However, the Applicant is aware of Surrey Heath's concern that construction activity could impact on both of the borough's SANGs/open spaces simultaneously. Although it is too early to make a commitment about the schedule of construction activity, as the Applicant is yet to appoint a contractor and define the phasing for installation, the Applicant will continue to engage with Surrey Heath regarding the construction timings and this will be recorded in the Statement of Common Ground. 1.8 The Applicant is aware of the council's practical concerns regarding the continued use of the two areas of SANG land at St Catherines Road and Windlemere during construction. From discussions with Surrey Heath Borough Council, it is understood that the Windlemere SANG is large enough to be able to absorb the scale of construction activity. However, the St Catherines Road SANG (Clewborough) is only 1.6ha and therefore the potential impact of construction is proportionately greater. The Order Limits in St Catherines Road SANG (Clewborough) take the form of three elements: • the corridor for the pipeline itself – it is proposed to adopt a narrow working open cut construction methodology secured through NW20 in the REAC; • there is a stringing out area for pipe – should it be necessary to use a trenchless construction technique in St Catherines Road to the south, this area would be necessary to lay pipe on the surface of the ground on rollers in preparation for pulling through the drill. The Applicant would prefer to use an open cut methodology and close St Catherines Road during construction, therefore not requiring this stringing out area; and • a temporary construction compound to support the construction works in St Catherines Road, the SANG and Frith Hill.

ExQ1	Question:	Applicant response to Question:
		1.9 The Applicant can confirm that the project would not preclude the continued use of the SANG or Frith Hill during construction for recreational activity. 1.10 Taking each SANG in turn, the HRA Report (**Application Document APP-130**) identifies the following: St Catherines Road SANG (Clewborough). Within 1km of the SANG there is open-access woodland at Frimley Fuel Allotments and Frith Hill. This extensive area of woodland would likely be a suitable alternative location for any small amount of recreational displacement from the SANG for the short duration of construction (See paragraph 5.8.22 of the HRA Report (**Application Document APP-130**)). Windlemere SANG. It is reasonable to assume that the unaffected area of SANG would be sufficient to absorb any displaced recreational activity. In addition, the 5.5ha West End Recreation Ground is an area of common land approximately 410m from Windlemere SANG that may also act as a receptor for any displaced recreational activity for the short duration of construction (See paragraph 5.8.23 of the HRA Report (**Application Document APP-130**)). 1.11 The Applicant's current intention is to use open-cut trench techniques in SANG locations, thereby reducing the period of construction activity. The Applicant would ensure crossing points are provided so that the SANG is useable during construction and would not prevent its use by the community, see commitment OP04: '*Principal pedestrian routes within SANGs crossing the working area would be managed with access only closed for short periods while construction activities occur. Additional signage for diversions on to alternative existing paths will be utilised as appropriate.'* This will be secured through the CoCP and secured through Requirement 5 of the DCO. 1.12 The Applicant remains in discussion with Surrey Heath Borough Council regarding their concerns about the potential impact of the construction of the pipeline in St Catherines Road SANG (Clewborough) in particular and this will be reported through the Statement of Common Ground.

ExQ1	Question:	Applicant response to Question:
		1.13 In conclusion, given the above, it is anticipated that visitors would typically continue to make use of the respective SANG during the construction period and any displacement of recreational activity to the SPA is expected to be very low (see paragraph 5.8.28 of the HRA Report (**Application Document APP-130**)). It is therefore considered that the displacement of recreational activities associated with the construction phase of the project would not lead to adverse effects on the integrity of the SPA or its ecological functions as defined by the Conservation Objectives (see paragraph 5.8.29 of the HRA Report (**Application Document APP-130**)). 1.14 For the purposes of undertaking an Appropriate Assessment, the competent authority must consult the appropriate nature conservation body and have regard to any representations made by that body. The appropriate nature conservation body is Natural England in relation to the HRA. Natural England, in its submission to the Planning Inspectorate, stated: '*Natural England have no serious concerns with this application and will not be objecting to it'* (See **Additional Submission AS-030**) and did not raise SANG as an issue. Natural England has completed and signed a Statement of Common Ground with the Applicant which has been submitted (**REP1-005**). The conclusion is, therefore, that the HRA is sound and an acceptable assessment of the impact on the SPA.
BIO.1.44	With reference to Table D.8 of the HRA report [APP-130] explain why no pathway for hydrological changes and resulting effects is considered to exist for European dry heaths.	1.1 European dry heaths are not critically dependent on levels or flows of groundwater and would not be sensitive to fluctuations in the water table, either drawing down or raising, unless these were significant and long-term. The vegetation types representing this Annex I habitat are characteristic of well-drained sandy profiles where the water table is well below ground level throughout most of the year, particularly in the growing season when there is typically a large soil-moisture deficit. 1.2 Construction and operation of the pipeline would be unlikely to result in significant and/or long-term changes in groundwater levels in areas supporting European dry heaths habitat, as in locations where the Order Limits pass through or near to this habitat, the pipeline would likely be installed in the unsaturated zone below the habitat, and so would not intercept groundwater flows.

ExQ1	Question:	Applicant response to Question:
		1.3 Installation of the pipeline in areas where the water table could be closer to the ground surface would be likely to support habitats other than European dry heaths (such as North Atlantic wet heaths with *Erica tetralix* qualifying habitat), and changes in groundwater levels and flows at such locations would likely be very localised in extent due to the size and design of the pipeline and so be unlikely to significantly affect nearby European dry heaths habitat. 1.4 In respect of changes to surface water levels or flows, it is unlikely that the project would result in any changes to these. The project would not modify watercourses and stands of European dry heaths habitat that are located in elevated or sloping ground so that surface drainage patterns would be unlikely to be modified. There is therefore no potential for likely significant effects by changes to surface water levels or flows.
BIO.1.45	i) With reference to paragraph 4.2.6 and Table D.8 of the HRA report (APP-130) and the statement of low potential for likely significant effects, clarify whether there is a potential for likely significant effects arising from the spread of INNS, ground contamination and air quality changes, or whether it determines on the basis of objective information, that these effects would be de minimis. ii) Confirm whether you are relying on mitigation measures to dismiss likely significant effects associated with such effects.	1.1 In response to i), Table 4.1 of the Habitats Regulations Assessment (HRA) Report (**Application Document APP-130**) (page 36, PDF page 42) sets out the identified source-receptor pathways for the Thursley, Ash, Pirbright and Chobham Special Area of Conservation (SAC) and includes identification of Invasive Non-Native Species (INNS), ground contamination and air quality as potential sources of effects. Table 4.2 of the HRA Report (page 38, PDF page 44) presents the assessment of Likely Significant Effects (LSE) arising from the effects identified in Table 4.1, concluding no LSE for INNS, ground contamination and air quality. For all three pathways (INNS, ground contamination and air quality), the potential for LSE to arise is very low given the very small scale of the works compared to the extent of the SAC. Similarly, for all three effects sources, if an effect was to occur, it would be considered *de minimis*. 1.2 In response to ii), mitigation measures are not relied upon to screen out LSE. Paragraph 4.2.7 of the HRA Report (page 41, PDF page 48) confirms this and hence compliance with the *Sweetman* case.

ExQ1	Question:	Applicant response to Question:
BIO.1.46	Clarify whether the embedded measures referred to in ES Chapter 16, including the REAC [APP-056] and in the CoCP [APP-128] are relevant to the conclusions regarding screening of likely significant effects for all relevant European sites and qualifying features.	1.1 As stated in paragraph 16.1.2 of Environmental Statement (ES) Chapter 16 (**Application Document APP-056**), embedded measures are an intrinsic part of the development that would be consented and are utilised regardless of the presence of any European sites. 1.2 Good practice measures identified within the Code of Construction Practice (**Document Reference 6.4 Appendix 16.1 (2)**) and Register of Environmental Actions and Commitments have not been included in the screening assessment to the Habitats Regulations Assessment (HRA) Report. Therefore, the Applicant can confirm that mitigation measures are not relied upon and are not relevant to screen out likely significant effects in the HRA Report (**Application Documents APP-130 and APP-131**) for European sites and qualifying features. Paragraph 4.2.7 of the HRA Report states that '*the Stage 1 Screening study is compliant with the Sweetman ruling as mitigation other than embedded measures was not considered as part of the study to inform Screening'*.
BIO.1.47	Explain how the HRA has determined the likely numbers of displaced visitors from the SANGs to the Thames Basin Heaths SPA, and whether the worst-case scenario has considered seasonal use of the SANGs by visitors.	1.1 Paragraphs 5.8.14 and 5.8.26 of the Habitats Regulations Assessment (HRA) Report (**Application Document APP-130**) explain that there are no available data on visitor numbers at the SANGs. In the absence of such data, paragraphs 5.8.15 to 5.8.29 of the HRA Report use information which is available to construct a reasoned case to assess the likelihood of displacement of visitors away from SANGs and to illustrate that if visitors are displaced from affected SANGs to the Thames Basin Heaths SPA, the displacement will not lead to adverse effects on site integrity of the SPA. In summary and for clarity, this reasoning is based on the following facts: • no SANG will close; • no SANG car park will be affected; • works within SANGs will be temporary and of short duration; • unaffected alternative open spaces (other than the SPA) suitable for recreational activities are present in the vicinity; and

ExQ1	Question:	Applicant response to Question:
		• the proportion of the total size of the affected area within SANGs (*c.* 20ha) to the size of the SANGs overall (*c.* 260ha) is small (*c.* 8%). 1.2 Based on these facts, the HRA Report concludes a low likelihood of visitors being displaced from SANGs to the SPA, and that if displacement does occur, it is reasonable to assume the resulting increase in potential disturbance to the bird species which are the Qualifying Interests of the SPA will be negligible, not leading to adverse effects on site integrity. 1.3 Paragraph 5.8.12 of the HRA Report (**Application Document APP-130**) confirms that the worst-case scenario has considered seasonal use of the SANGs by visitors – whereby all works and consequent potential visitor displacement could take place during the bird breeding season when all of the SPA Qualifying Interest species are present and at their most vulnerable to disturbance.
BIO.1.48	Paragraph 5.8.17 of the HRA report (APP-130) refers to the use of non-trenched construction techniques, which would result in the pipeline installation taking longer. i) Confirm whether there are any trenchless crossings located within SANGs relevant to the Thames Basin Heaths SPA and provide a figure at an appropriate scale to show the crossing locations. ii) Direct the ExA to the figures/drawings showing the proposed narrow working areas within SANGs.	1.1 In response to i), constuction through each SANG would be using open trench techniques. However there are two separate proposed crossings which are partially located within SANGs, both of which cross road infrastructure: • TC 014 Both launch and reception pits for the following trenchless crossing – A327 Ively Road; Auger bore trenchless technique over an approximate length of 32m. A trenchless crossing would be used to avoid the A327, which is a major route into Farnborough and to avoid disruption to local residents. Located on the General Arrangement Plans (**Application Document APP-023**) – Sheet 33; and • TC 021 Eastern side only of the following trenchless crossing – A322 Lightwater Bypass; Auger bore trenchless technique over an approximate length of 58m. A trenchless crossing would be used to avoid the A322 Lightwater Bypass and reduce impacts on travel in the local area. Located on the General Arrangement Plans (**Application Document APP-023**) – Sheet 41. 1.2 In response to ii), there is only one narrow working within a SANG as per Annex A Table A1 Environmental Statement Appendix 16.1 CoCP (**Document Reference 6.4 Appendix 16.1 (2)**):

<table>
<tr><th>ExQ1</th><th>Question:</th><th>Applicant response to Question:</th></tr>
<tr><td></td><td></td><td>• NW8 Naishes Lane Working width reduced to 15m to reduce impacts on Suitable Alternative Natural Greenspace (SANG) over an approximate length of 356m. Located on the General Arrangement Plans (Application Document APP-023) – Sheet 30.</td></tr>
<tr><td>BIO.1.49</td><td>i) Provide the evidence used to support the assumptions made regarding alternative use of SANGs and open-access land.

ii) Provide a statement as to whether there is uncertainty attached to these assumptions and if so, what other measures should be applied to improve certainty.</td><td>1.1 Natural England has confirmed its satisfaction with the project's HRA, which was submitted as part of the application for development consent, and has not raised any issue with the HRA (see Additional Submission AS-030). Natural England has completed and signed a Statement of Common Ground with the Applicant which has been submitted (REP1-005).

1.2 In response to i), it is presumed that the Question relates to assumptions made in the Habitats Regulations Assessment (HRA) Report (Application Document APP-130) on the issue of potential displacement of visitors from affected areas of Suitable Alternative Natural Greenspaces (SANGs) to unaffected areas of the SANGs in question (as other parts of the SANGs would remain open) and/or to nearby open access land, not to the Thames Basin Heaths Special Protection Area (SPA).

1.3 In summary, SANGs for which assumptions are made about visitors potentially selecting to use other nearby SANGs and/or unaffected open access land during construction are as follows:
<table>
<tr><th>Affected SANG</th><th>Alternative open space</th><th>Distance to alternative open space</th><th>Other information</th><th>HRA Report paragraph</th></tr>
<tr><td>Southwood Golf Course proposed SANG</td><td>Southwood Woodland SANG</td><td>350m</td><td>Well-established dog walking location</td><td>5.8.21</td></tr>
<tr><td>St. Catherines Road SANG (Clewborough)</td><td>Woodland at Frimley Fuel Allotments and Frith Hill</td><td>300m to Frimley Fuel Allotments, 1km to Frith Hill</td><td>Alternative woodland areas are large compared to the affected SANG</td><td>5.8.22</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>ExQ1</th><th>Question:</th><th>Applicant response to Question:</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>Windlemere SANG</td><td>West End Recreation Ground</td><td>410m</td><td>Ideal space for recreational activities</td><td>5.8.23</td></tr>
<tr><td>Chertsey Meads SANG</td><td>Ten alternative SANGs</td><td><5km</td><td>All alternative SANGs are closer to Chertsey Meads SANG than the SPA is</td><td>5.8.24</td></tr>
</table>
1.4 The assumption is made that if visitors decide not to use the affected SANG during construction, they are likely to select a nearby SANG or other open access space for recreational activities. The information in the table above provides evidence that such alternative locations exist.
1.5 In response to ii), there can be no certainty in predicting what people choose to do; the assumptions made provide an assessment of likelihood of how visitors are expected to respond, given the choice of alternative sites available. The Applicant is not aware of any suitable measures that could be applied to reduce the uncertainty about how people would respond.
</td></tr>
<tr><td>BIO.1.50</td><td>The HRA [APP-130] and [APP-131] states that the visitor impact cannot be quantified due to the lack of visitor data. However, Rushmoor Borough Council in its RR [RR-293] advocate that this can be done using their adopted formula.

Provide an accurate calculation of visitor numbers using this formula.</td><td>1.1 The Rushmoor Borough Council relevant representation quotes the formula ‘When a SANG is designated, the visitor capacity of site is calculated using the formula of 8ha /1000 population increase.’ The ‘formula’ is a calculation set out in Policy NE1 in the Rushmoor Local Plan (2019) which in turn reflects policy NRM6 of the South East Plan (2009). Policy NE1 indicates:

‘New development which is likely to have a significant effect on the ecological integrity of the Thames Basin Heaths Special Protection Area (SPA), including all net new dwellings, will be required to demonstrate that adequate measures are put in place to avoid or mitigate any potential adverse effects. The mechanism for delivering this policy is set out in the Council’s Thames Basin Heaths Special Protection Area Avoidance and Mitigation Strategy (2014), supported by the Thames Basin Heaths Delivery Framework prepared by the Thames Basin Heaths Joint Strategic Partnership…</td></tr>
</table>

ExQ1	Question:	Applicant response to Question:
		a. A minimum of 8 ha of SANG land (after discounting to account for current access and capacity) should be provided in perpetuity per 1,000 new occupants, either through contributions towards the provision of SANG identified by the Borough Council, or through on-site SANG, agreed with Natural England; and *b. Contributions towards Strategic Access Management and Monitoring measures.'* 1.2 The Applicant has considered the policy in their application and has the following points to raise: • The project would not generate any additional population. Therefore, there is no requirement to provide permanent SANG mitigation. • The pipeline would have a temporary impact during construction only and this is reported in the HRA Report (**Application Documents APP-130 and APP-131**). 1.3 The adopted formula does not give an indication of visitor numbers; it only demonstrates the minimum number of hectares that should be provided for 1000 new occupants where mitigation for new residential development is provided in the form of a SANG.
BIO.1.51	Rushmoor Borough Council in its RR [RR-293] argued that the Application documents do not provide adequate information to enable an Appropriate Assessment to be undertaken in respect of the magnitude of displacement caused by the impact on the SANG network and habitat loss within the Thames Basin Heaths SPA.	1.1 The Applicant assessed the impact of the project on open spaces and SANGs against the policy advice in NPS EN-1 paragraphs 4.3.1 and 5.3.9; and NPS EN-4 paragraphs 2.21.1-2.21.3 (see Planning Statement (**Application Document APP-132**)). 1.2 The Applicant has also worked with Natural England (NE) extensively on the project and has sought its advice on the Habitats Regulations Assessment (HRA) Report (**Application Document APP-130 and APP-131**) and potential impacts of the project on the Thames Basin Heaths Special Protection Area (SPA). EN-1 requires an ES to set out any effects on internationally, nationally and locally designated sites of ecological importance (paragraph 5.3.3). EN-4 requires an Environmental Statement (ES) to assess the biodiversity effects of a proposed route (paragraph 2.21.3). The impact on the SPA is addressed in the HRA Report (**Application Documents APP-130 and APP-131**). The assessment has considered the

ExQ1	Question:	Applicant response to Question:
	Respond.	knock-on effects of routeing through public open spaces, such as local SANGs and any transferred impact on the neighbouring SPAs. NE has indicated that it is content with the project's HRA, which was submitted as part of the application for development consent and has not raised any issue with the HRA in their relevant representation (see **Application Documents APP-130 and APP-131**). NE has signed a Statement of Common Ground (SoCG) with the Applicant to confirm its position on this issue (**REP1-005**). 1.3 Rushmoor Borough Council (RBC) is concerned that construction activity could impact on all the SANGs/open spaces simultaneously. The Applicant is yet to appoint a contactor and define the phasing for construction. However, the Applicant has assessed the worst case for the impact of the construction of the project. The Applicant will continue to engage with RBC on this concern as part of the proposed SoCG. 1.4 Within the council's administrative area the project crosses one SANG, Southwood Country Park, the first phase of which opened in September 2019. RBC is concerned that construction works in the SANG would displace users to the Thames Basin Heaths SPA, thereby having an adverse impact on the integrity of the SPA regarding its ecological functions as defined by the European Site Conservation Objectives. The Conservation Objectives are defined by NE and the relevant SPA Conservation Objectives are described in Section 5.5 of the HRA Report (**Application Documents APP-130 and APP-131**). As detailed below, the Applicant considers that the displacement of recreational activities associated with the construction phase of the project would not lead to adverse impacts on the integrity of the SPA or its ecological functions as defined by the Conservation Objectives. 1.5 The pipeline corridor and route selection processes evaluated various options based on guiding principles for the project, these are set out in paragraph 4.6.2 of ES Chapter 4 (**Application Document APP-044**). The project guiding principles were considered collectively and a balanced judgement made which resulted in the proposed pipeline route passing through the Southwood Country Park SANG. 1.6 The HRA (**Application Document APP-130**) assesses the impact on the Thames Basin Heaths SPA. It states in the HRA Report, Part 1, on page 3 (Executive Summary): '*The short duration and limited extent of works within affected Suitable Alternative Natural Greenspaces*

ExQ1	Question:	Applicant response to Question:
		(SANG) is considered to reduce the risk of significant levels of recreational displacement to the SPA. Information presented in this report about each SANG impacted by the project and the presence of alternative unaffected spaces within 5km of affected sites further establishes a low risk of significant recreational displacement occurring. Any effects experienced are anticipated to be minor as the relative impact of a marginal increase in visitor numbers to existing footpaths on the SPA would be small. As such, no impacts are predicted that could result in an adverse effect to the site's integrity'. 1.7 The HRA Report (**Application Document APP-130**) goes on to state at paragraph 5.8.15 that '*Construction activity would not require the total closure of any SANG. All SANGs would still be accessible during the period of construction works, with only specific access points and footpaths being temporarily closed or diverted. There are no SANG car parks within the Order Limits and so these would remain unaffected*.' The HRA Report identifies the following specifically in relation to the proposed Southwood Country Park SANG: '*No SANG car parks would be directly affected by the project. It is anticipated that the existing Southwood Woodland SANG (approximately 350m to the west of the Order Limits) and unaffected parts of the SANG would act as a receptor for any displaced recreational activity for the short duration of construction, with the former already a well-established area for walkers*'. (See paragraph 5.8.21 of the HRA Report). The HRA Report, Part 1, on page 3 (Executive Summary) states '*The conclusion of the study was that there would be no adverse effects on the integrity of the Thames Basin Heaths SPA as a result of the project, either alone or in combination with other plans or projects.*' (**Application Document APP-130**) 1.8 The Applicant's current intention is to use open-cut trench techniques for installing the pipeline and the application includes a commitment on access within the SANG. This is in ES Appendix 16.1 Code of Construction Practice (CoCP) (**Document Reference 6.4 Appendix 16.1 (2)**), see commitment OP04: '*Principal pedestrian routes within SANGs crossing the working area would be managed with access only closed for short periods while construction activities occur. Additional signage for diversions on to alternative existing paths will be utilised as appropriate.'* This will be secured through the CoCP and secured through Requirement 5 of the draft DCO.

ExQ1	Question:	Applicant response to Question:
		Conclusion 1.9 Given the above, it is anticipated that visitors would typically continue to make use of the SANG during the construction period and any displacement of recreation activity to the SPA is expected to be very low (see paragraph 5.8.28 of the HRA Report (**Application Document APP-130**)). It is, therefore, considered that the displacement of recreational activities associated with the construction phase of the project would not lead to adverse effects on the integrity of the SPA or its ecological functions as defined by the Conservation Objectives (See paragraph 5.8.29 of the HRA Report (**Application Document APP-130**)). 1.10 For the purposes of undertaking an Appropriate Assessment, the competent authority must consult the appropriate nature conservation body and have regard to any representations made by that body. The appropriate nature conservation body is NE. Natural England has confirmed its satisfaction with the project's HRA, which was submitted as part of the application for development consent, and has not raised any issue with the HRA (see **Additional Submission AS-030**). Natural England has completed and signed a Statement of Common Ground with the Applicant which has been submitted (**REP1-005**). The conclusion is, therefore, that the HRA is sound and an acceptable assessment of the impact on the SPA.
BIO.1.52	The HRA report [APP-130], including Figure 9.2, states that the boundary and size of St Catherine's Road SANG is not known and/ or pending confirmation. i) Explain whether the location and size of this SANG has been established since submission of the draft DCO application.	1.1 There is some uncertainty regarding this site. The Applicant understands that it is normally known as St Catherines Road SANG, but it is also sometimes referred to by the Council as Clewborough SANG. It is noted that it is not identified as a strategic SANG on the Council's website. https://www.surreyheath.gov.uk/residents/planning/planning-policy/thames-basin-heaths-special-protection-area/suitable-alternative 1.2 The SANG at St Catherines Road was created in 2010, as part of a planning permission for 60 dwellings on the former Clewborough House School site, St Catherines Road, Frimley (SU/2009/0500). 1.3 In response to i), the size and location of the SANG has now been established. In response to ii), the SANG is on the old school playing field – it occupies all the school playing field land. The land is triangular shaped and bounded by Frith Hill Road (an informal road) to the north,

ExQ1	Question:	Applicant response to Question:
	ii) If so, provide the details and if not, provide the timescale for when this information would be available.	St Catherines Road to the west and an unnamed track adjacent to the woodland to the east. The area of the land is approximately 1.6 hectares. 1.4 The impact of the proposed replacement pipeline on this SANG has been assessed not only from the perspective of a potential impact on the Thames Basin Heaths, reported in the HRA Report (**Application Document APP-130**), but also from the perspective of an open space, reported in Chapter 16 of the Planning Statement (**Application Document APP-132**).
BIO.1.54	Paragraph 6.6.13 of the HRA report [APP-130] states that an area of Northern Atlantic wet heaths with Erica tetralix lies outside of the Limits of Deviation and would not be affected by trench excavation. Clarify if the assessment has considered other construction works within the Order Limits.	1.1 The assessment within the Habitats Regulations Assessment (HRA) Report (**Application Documents APP-130 and APP-131**) considers all construction works within the Order Limits. Paragraph 6.6.13 states that a narrow (<5m) strip, about 75m in length, of Northern Atlantic wet heath habitat falls within the Order Limits but outside of the limits of deviation. The method of construction proposed at this location is trench excavation, as shown on Figures B1 and B6 in Appendix B of the HRA Report (**Application Documents APP-130 and APP-131**), hence the mention of this in paragraph 6.6.13.
BIO.1.55	Paragraph 6.8.5 of the HRA report (APP-130) states that "To reduce vegetation loss and to protect soils, the existing access tracks would be utilised as haul routes where practicable." i) Confirm where such measures are secured through the REAC/CoCP. ii) Explain how it would be determined how existing tracks	1.1 Paragraph 6.8.5 of the Habitats Regulations Assessment (HRA) Report (**Application Document APP-130**) does not contain the text quoted in the Question – but paragraph 6.8.35 does. It is therefore assumed that the Question relates to paragraph 6.8.35 of the HRA Report. 1.2 In response to i), design measures relating to use of specific existing tracks in European sites are set out in the Register of Environmental Actions and Commitments (REAC) in Section 16.3 of Environmental Statement (ES) Chapter 16 (**Application Document APP-056**). The REAC also includes reference to how the commitments would be implemented (or secured) through the Development Consent Order (DCO) process. Compliance with the Code of Construction Practice (CoCP) (**Document Reference 6.4 Appendix 16.1 (2)**) is secured by DCO Requirement 5. In assessing which access tracks within European sites could be used as haul routes, the Applicant determined the following were practicable and the following

ExQ1	Question:	Applicant response to Question:
	would be used and who would be responsible. iii) Comment on whether the conclusions reached in the HRA would be affected if such measures were "not practicable".	commitments are detailed in Table 6.1 (pages 12, 14 and 19) of ES Chapter 16 (**Application Document APP-056**): • D60: Bourley and Long Valley SSSI/SPA - Use the existing track north of Aldershot Road rather than habitat area as haul road; • D80: Colony Bog and Bagshot SSSI/SPA Heathland - Use the existing Ministry of Defence (MoD) track plus narrow working area; • D82: Colony Bog and Bagshot SSSI/SPA Wetland - Align the pipe on high ground to the north or lay in existing track; and • NW23 and NW24: Chobham Common SAC/SSSI/NNR - Working width reduced along and adjacent to the existing track to reduce impacts on Chobham Common SSSI/NNR. 1.3 In response to ii and iii), the Applicant has already determined the locations where existing tracks would be used and the commitments detailed above are included in the REAC (**Application Document APP-056**) and would be secured by the CoCP which is DCO Requirement 5. The design measures listed above (D60, D80, D82, NW23 and NW24) are not qualified by 'where practicable' and are specific measures to be adhered to by the Applicant. Therefore, the HRA's conclusions would not be affected.
BIO.1.57	With reference to mitigation measure G38 in the CoCP (APP-128): i) Explain what would constitute "potentially disturbing construction works" and what works (if any) would be permitted in the SPA during the period 1 February to 30 September. ii) Update measure G38 in the CoCP (APP-128) and the REAC	1.1 In answer to i), the construction works have been outlined in Section 3.4 of Environmental Statement (ES) Chapter 3 (**Application Document APP-043**) as the following, all of which could be considered potentially disturbing: • setting out; • utility diversions; • working area preparation; • temporary fencing; • pre-construction drainage;

ExQ1	Question:	Applicant response to Question:
	(APP-056) to explicitly include reference to the areas where seasonal constraints would apply (stated to be Figures 9.9, 9.10 and 9.11 in the HRA report (APP-130) and (APP-131)) and seek to agree the proposed timings of seasonal constraints with NE.	• temporary access for construction; • construction compounds; • public highways and public rights of way closures and diversions; • topsoil removal and storage; • haul road construction; • pipe storage and stringing; • welding and joint coating; • trench excavation and pipe installation; • trenchless crossing installation; • dewatering; • pipeline hydrostatic testing; and • land reinstatement. 1.2 The Applicant will comply with all legislative requirements and will seek any necessary consents from Natural England for works listed above with the potential to impact the SPA. 1.3 Works that are not considered to be potentially disturbing construction works and therefore could take place in the SPA during the period 1 February to 30 September include photographic record of condition, survey work, ecological habitat manipulation, protected species relocation and reinstatement seeding. 1.4 Sand lizard mitigation known to be required between 1 February and 30 September is set out in ES Appendix 7.16 Draft Rare Reptiles EPS Licence Application (**Application Document APP-100**). 1.5 Paragraph A.1 '*If pre-construction surveys identify the presence of hibernating sand lizards, or habitat features highly suitable for hibernation, small targeted areas (as identified) would be fenced to exclude reptiles, and any sand lizards within this exclusion area would be*

ExQ1	Question:	Applicant response to Question:
		removed and placed outside the fencing within the Order Limits. This would take place in the summer preceding the start of installation works.' 1.6 Paragraph B.1 '*In order to ensure sand lizards are not hibernating within the works area, habitat manipulation would need to be carried out between May and early August which could result in the disturbance of nesting birds*' and '*Any habitat manipulation programme would need to be discussed with and agreed by Natural England to ensure it was not likely to result in disturbance of important bird species (although it is expected that this could be achieved through pre-clearance checks for nesting birds)*' 1.7 The draft licence application is subject to a letter of no impediment (LONI) from Natural England (**Application Document APP-100**) '*Natural England sees no impediment to a licence being issued, should the DCO be granted*.' 1.8 If the SPA bird breeding season is deemed to have prematurely ended, agreement would be sought from Natural England for other works within the SPA. 1.9 In answer to ii), commitment G38 has been amended to read: '*Thames Basin Heaths SPA: Potentially disturbing construction works within the Thames Basin Heaths SPA would be undertaken between 1 October and 31 January unless otherwise agreed with Natural England. This would apply to the areas identified in Figures 9.9, 9.10 and 9.11 within the HRA [**APP-130** **and** **APP-131**]*'. 1.10 The Applicant signed a Statement of Common Ground with Natural England on 11 October 2019 (**REP1-005**). The Habitats Regulations Assessment Report (**Application Documents APP-130 and APP-131**) has been developed in conjunction with Natural England, as confirmed in the consultation responses of 31/01/19 and 21/3/19 cited within the Statement of Common Ground (**REP1-005**) and contains details of seasonal constraints and locations. The Statement of Common Ground (Table 3.1.1 in **REP1-005**) between the Applicant and Natural England states agreement '*That the mitigation proposed in Chapters 7 and 16 of the ES is appropriate, including monitoring procedures, how mitigation will be secured within the DCO, the content of the Register of Environmental Actions and Commitments and the Code of Construction Practice, and in relation to the Construction Environmental Management Plan'* and '*That Natural England support the conclusion of the Habitats Regulations*

ExQ1	Question:	Applicant response to Question:
		Assessment that there would be no adverse effects on the integrity of either the Thames Basin Heaths Special Protection Area or the Thursley, Ash, Pirbright and Chobham Special Area of Conservation after implementation of appropriate mitigation and good practice measures.'
BIO.1.58	Clarify why there are no seasonal restrictions to the proposed works in the north-eastern section of Bourley and Long Valley SSSI.	1.1 Figure 9.9 in the Habitats Regulations Assessment (HRA) Report (**Application Document APP-130**) shows the areas within the Bourley and Long Valley SSSI (component part of the Thames Basin Heaths SPA) that are subject to seasonal constraints due to the risk of disturbance during the breeding season of qualifying bird species. The amended commitment G38 states '*Thames Basin Heaths SPA: Potentially disturbing construction works within the Thames Basin Heaths SPA would be undertaken between 1 October and 31 January unless otherwise agreed with Natural England. This would apply to the areas identified in Figures 9.9, 9.10 and 9.11 within the HRA [**APP-130** **and** **APP-131**]*. 1.2 As agreed with Natural England in a site meeting held on 24 July 2018, any habitat not suitable for breeding by the qualifying bird species of the SPA, within the SPA, does not require seasonal constraints in vegetation clearance. The north-eastern section of the Bourley and Long Valley SSSI comprises coniferous plantation which is highly unlikely to support these qualifying bird species while breeding (see Figure 7.4, Sheet 20 of 35 in **Application Document APP-061**). This is confirmed by the annual bird monitoring surveys which are reviewed in Figures C1, C2 and C3 of the HRA Report (**Application Document APP-130**).

ExQ1	Question:	Applicant response to Question:
BIO.1.59	With reference to REAC/CoCP measure HRA4 and the legend to the Figures in Appendix B to the HRA report [APP-130], confirm where in the HRA report it identifies the areas where topsoil stripping would not be reduced to a minimum extent within European sites and SSSI. What is the minimum extent and how is it defined?	1.1 Drawings B1 to B7 in Appendix B of the Habitats Regulations Assessment (HRA) Report (Application Document APP-130 and APP-131) detail the construction approaches to be adopted within European sites and Sites of Special Scientific Interest (SSSIs), showing a range of working widths. Sections of the project within which the working width, and hence the amount of topsoil stripping, would not be reduced to a minimum are shown on Drawing B7 (Bourley and Long Valley SSSI), denoted by Cross Section E. 1.2 The minimum extent of topsoil removal (in designated sites) would occur in areas of minimum working corridor width (Cross Section F, down to 10m) where bogmats can be used.
BIO.1.60	The HRA report [APP-130] references the following article in support of the natural regeneration measure HRA1: South East Water, 2018. Wildlife corridor in Swinley Forest heralded an environmental success. [Online] Available at: https://corporate.southeastwater.co.uk/news-info/wildlife-corridor-inswinley-forest- heralded-an-environmental-success [Accessed April 2018]. The hyperlink to this article does not work. It is assumed there is an error in the hyperlink and that the Applicant is referring to this article:	1.1 The Habitats Regulations Assessment (HRA) Report (**Application Documents APP-130 and APP-131**) references the Swinley Forest scheme on page 104 and page 107 and provides the reference with associated hyperlink on page 86. The following hyperlink, as shown on page 86 of the HRA Report, is relevant: https://corporate.southeastwater.co.uk/news-info/wildlife-corridor-in-swinley-forest-heralded-an-environmental-success 1.2 In response to i), paragraph 6.8.38 of the HRA Report (**Application Documents APP-130 and APP-131**) states that heathland sites would be reinstated using natural regeneration. This assumes natural regeneration with no intervention. The Lowland Heathland Management Handbook – a Natural England publication - states such an approach is an acceptable standard conservation measure with a high degree of confidence of success. Consequently, no other measures are proposed. 1.3 In response to ii), Table D.7 (footnote a) and Table D.8 (footnote a) in the HRA Report, both state that regeneration is anticipated to occur within a five-year period, in relation to the Thames Basin Heaths SPA and Thursley, Ash, Pirbright and Chobham SAC respectively. This timeframe is taken from the Lowland Heathland Management Handbook, which states that it can take four to five years for plants to be become established in regeneration areas. The Swinley Forest article was written only two years after the reseeding activities at that

ExQ1	Question:	Applicant response to Question:
	https://corporate.southeastwater.co.uk/news-info/wildlife-corridor-in-swinley-forest- heralded-an-environmental-success/ Please confirm this. This article states that "In preparation, a mix of local wildflower, grass and heathland seeds were collected and stored in controlled conditions until reseeding could take place in autumn 2015. The success of this re-seeding programme became fully evident in July this year." i) It is not apparent from the HRA report that a similar programme of seed collection and preparation is planned for the Proposed Development. Confirm whether this would be the case or whether it would be entirely natural regeneration with no intervention. ii) This article is also referenced in support of the statement that "Full regeneration to acid grassland and pioneer heathland is anticipated to occur within the short term (i.e. within	site, and had already deemed the project to be successful. A period of up to five years for regeneration to be likely to be successful without reseeding measures is therefore reasonable. 1.4 In response to iii), commitment G47 states '*A programme of post-construction monitoring and objectives/targets for designated ecological sites, would be agreed and implemented in accordance with DCO requirements. DCO Requirement 5 (CoCP) DCO Requirement 12 (Landscape and Ecological Management Plan)'.* 1.5 The Applicant has identified the following designated ecological sites which would receive post construction ecological monitoring against objectives/targets: • Bourley and Long Valley SSSI; • Colony Bog and Bagshot Heath SSSI; • Chobham Common SSSI/NNR; and • Chertsey Meads LNR. 1.6 Chertsey Meads LNR is included as it was formerly a SSSI, and as discussed in Environmental Statement Chapter 7 (**Application Document APP-047**), the site supports nationally scarce and rare, locally scarce and red-listed species while still containing SSSI selection criteria for vascular plant assemblages. Chertsey Meads is therefore valued 'high' (same value as SSSIs). 1.7 The LEMP would set out how the details of the monitoring including potential remedial measures that could be implemented if the reinstatement does not occur as planned. 1.8 The programme and content of post construction monitoring would be agreed with Natural England and recorded within the LEMP.

ExQ1	Question:	Applicant response to Question:
	five years following construction) (South East Water, 2018)." However, it is not explicitly stated in this article that full regeneration, as proposed by the Applicant, would occur within five years. Expand. iii) It is also apparent that a programme of monitoring has been undertaken for the aforementioned project. Does the Applicant intend to monitor the success of the restoration post-completion, and/or would remedial measures be proposed if remediation is not as planned? This is not apparent within the HRA report [APP- 130] and [APP-131]. However, reference to monitoring is included in measures G47 and G4 of the REAC/CoCP. Confirm whether monitoring is to take place and provide further details of this monitoring.	
BIO.1.61	A number of errors and missing information in the HRA report [APP-130] and [APP-131] and in related documents has been	1.1 In response to i), any reference to 'Annex B to the HRA' should be regarded as 'Appendix B to the HRA'. 1.2 In response to ii), there is no reference to 'Highways England 2009' in the HRA Report (**Application Document** APP-130). It is assumed that the queried reference relates to

ExQ1	Question:	Applicant response to Question:
	identified. Could the Applicant address the following points: i) It is noted that Table 2.1 of the HRA report [APP-130], the REAC [APP-056], CoCP [APP-128] and draft DCO [AS-059] repeatedly refer to the SSSI Working Plans contained in "Annex B to the HRA report". However, there is no Annex B to the HRA report, and it is assumed that these references are to "Appendix B" of the HRA report. Revise references to Annex B in all relevant documents to ensure they are directing to the correct Appendix in the HRA report. ii) It is noted that the Highways England 2009 guidance referred to in the HRA report [APP-130] is missing from the references. Provide this reference. iii) It is noted that there is information missing from Appendix D Table D.8 [APP- 130] and therefore the text for footnotes d to i is missing. Provide a complete version of the HRA report.	'Highways Agency 2009' and 'Highways Agency 2007'. The full references to these are provided below. • Highways Agency (2007) Design Manual for Roads and Bridges Volume 11 Environmental Assessment Section 3 Environmental Assessment Techniques. Part 1 Air Quality - HA 207/07; and • Highways Agency (2009) Design Manual for Roads and Bridges Volume 11 Environmental Assessment Section 4 Assessment of Implications on European Sites - HD 44/09. 1.3 In response to iii), the original application of the HRA Report (**Application Document APP-130**) uploaded on the Planning Inspectorate website has the last page missing of Appendix D, which contains the footnotes from e-i. However, the Applicant resubmitted Appendix D of the HRA Report to the Examining Authority on 13 August (**Additional Submission AS-026**), as part of the S51 submission and this was uploaded as a pdf to the project website. This contains the missing page on page 18. 1.4 In response to iv), habitats information is missing from Figure 9.6 of the HRA Report (**Application Document APP-130**) for areas at Bourley and Long Valley SSSI. However, detailed habitat survey information for this site has been provided in other reports submitted: • Figure 7.4 of the Environmental Statement (ES), specifically Sheet 20 of 35 (**Application Document APP-061**); and • Figures A7.1.91 to A7.1.96 in ES Appendix 7.1 (**Application Document APP-081**). 1.5 In response to v), there is a number formatting error which has resulted in the loss of heading number 5.6 of the HRA Report (**Application Document APP-130**). No text is missing. Reference to paragraphs 5.6.8 to 5.6.28 within the text refers to text provided in paragraphs numbered 5.7.8 to 5.7.28. 1.6 In response to vi), Table 5.1 of the HRA Report (**Application Document APP-130**) provides information on SSSI units in the Thames Basin Heaths SPA that are intersected by the Order

ExQ1	Question:	Applicant response to Question:
	iv) Paragraph 5.7.8 of the HRA report [APP-130] states that "The occurrence of potential supporting habitat relative to the Order Limits through the SSSI [Bourley and Long Valley SSSI] is also presented in Figure 9.6." However, no habitat information is shown within this SSSI on this figure. Confirm if this information is missing and if so, provide a revised Figure 9.6. v) It is noted that there is no Section 5.6 within the HRA report [APP-130]. Additionally, paragraph 5.7.7 refers to information contained in paragraphs 5.6.8 to 5.6.28, which are absent. Confirm whether there is text missing from the HRA or if this is a typographical error. vi) Condition status information for Eelmoor Marsh SSSI is absent from Section 5.3 and Table 5.1 of the HRA report [APP-130]. Provide this information.	Limits. Eelmoor Marsh SSSI is adjacent but not intersected by the Order Limits. Therefore, condition information and status is not included for Eelmoor Marsh SSSI. 1.7 In response to vii), the brown hatched areas shown on the Figures in Appendix B to the HRA Report (**Application Document APP-130**) are indicative locations for site compounds. The green hatched mitigation areas are shown for consistency with the ES and are not relied on for the assessment or conclusions of the HRA Report (**Application Documents APP-130 and APP-131**). 1.8 In response to viii), Natural England provided the waterfowl assemblage number to be 51,361 in the citation, Natura 2000 data form and in the Supplementary Advice on Conservation Objectives (SACOs) published in September 2019 for Solent and Southampton Water SPA. The number 53,948 given in the HRA Report (**Application Document APP-130**) is an error. 1.9 In response to all of the errata identified in these answers, the Applicant will submit an errata document during the examination.

ExQ1	Question:	Applicant response to Question:
	vii) Please clarify the brown hatched areas shown on the Figures in Appendix B to the HRA report [APP-130], as the legend does not appear to include these features. In addition, the green hatched areas on the figures are described as “Mitigation areas (within Order Limits)”. No reference is made to mitigation areas in the HRA report and their purpose. Clarify. viii) The ExA is aware from the Natura 2000 data form and Citation for the Solent and Southampton Water SPA, that the qualifying waterfowl assemblage numbers are stated to be 51,361 individuals. However, Table 4.1 and screening matrix D.1 of the HRA report [APP-130] states this to be 53,948. Confirm with NE the correct figure for the qualifying assemblage at this site, which is to be used for HRA purposes.	

2 References

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Forestry Commission and Natural England (2018). Ancient woodland, ancient trees and veteran trees: protecting them from development. Available at: https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences

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Institute of Air Quality Management (2016). Guidance on the Assessment on Dust from Demolition and Construction. V1.1. Institute of Air Quality Management, London.