

# Southampton to London Pipeline Project

## Deadline 4

Responses to ExA's Further Written Questions -  
Biodiversity and Habitats Regulations Assessments  
(BIO)

Application Document: 8.35

Planning Inspectorate Reference Number: EN070005  
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January 2020



Southampton to London  
Pipeline Project



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

1.1 Table 1.1: Applicant response to Question

ExQ2	Question:	Applicant response to Question:
BIO.2.1	<p>In paragraph 2.8.1 of its submissions at D3 [REP3-010], the Applicant stated that “only mitigation which was properly to offset the effects of the project were matters which the ExA could consider as important and relevant under s104 of PA2008 but anything over and above that was between the Applicant and the parties who would benefit from it”.</p> <p>In terms of biodiversity, confirm:</p> <p>i) Those elements of mitigation which are</p>	<p>1.2 The Applicant assumes that the reference to paragraph 2.8.1 should be 2.81 in (<a href="#">REP3-010</a>). In response to i), the embedded design mitigation and good practice measures detailed in Chapter 16 of the Environmental Statement (<b>Application Document APP-056</b>) and their specific application to the potential likely significant effects assessment on ecological features identified for the project in Chapter 7 of the Environmental Statement (<b>Application Document APP-047</b>) constitute the mitigation referred to. The application of these measures is predicted to result in no residual biodiversity impacts where mitigation ‘to offset the effects of the project’ are necessary.</p> <p>1.3 In response to ii), it is the Applicant’s view that all the measures listed in the Environmental Investment Programme (EIP) can be described as those that are beyond the scope of s104 of The Planning Act 2008, i.e. should not count as benefits of the project that should be weighed against its adverse impacts. The current version of this document was published on the project website in early December 2019.</p>



ExQ2	Question:	Applicant response to Question:
	<p>required to offset the effects of the project.</p> <p>ii) those elements of environmental improvement which the Applicant is offering, and which are beyond the scope of s104.</p>	
BIO.2.2	<p>The Applicant's Environmental Investment Programme (EIP) would provide funding for localised environmental improvements in the vicinity of the proposed pipeline. In paragraph 2.8.1 of its submissions at D3 [REP3-010], the Applicant stated that documents relating to the EIP "did not properly relate to mitigation for the project".</p> <p>i) Set out the legal basis for providing an</p>	<p>1.1 In response to i), providing an Environmental Investment Programme (EIP) is not a legal requirement for a Nationally Significant Infrastructure Project. The project has identified the environmental impacts associated with the replacement pipeline in the Environmental Statement (ES), and appropriate mitigation is set out in Chapter 16 of the ES (<b>Application Document APP-056</b>).</p> <p>1.2 The Applicant understands the replacement pipeline construction would still be outside of 'everyday activities or use' of the environmentally and socially valued areas that the route travels through. As a good neighbour and responsible operator, the Applicant has developed the EIP in order to contribute to the communities which the pipe crosses. The EIP is not intended to be, or promoted as, mitigation. Since it is not a public body, the Applicant is free to pursue such a programme as a responsible operator.</p> <p>1.3 In response to ii), the Applicant's intention to offer an EIP has been informally discussed with Interested Parties (IPs) since 2018. It was not considered appropriate to send formal offer letters of intent before the examination period began. Letters detailing initial EIP offerings were sent out to local authorities, and other relevant organisations, in October 2019 once the examination had already started. The Applicant has made all efforts to be transparent in relation to EIP. An EIP report, detailing all offers made, was published on the project website shortly after the offer letters</p>





ExQ2	Question:	Applicant response to Question:
	<p><b>EIP and why is the Applicant proposing to provide funding for local environmental improvements which are not required as mitigation.</b></p> <p>ii) Set out the assurances that ExA can be given by the Applicant and relevant IPs that such environmental benefits have not influenced their response to the application.</p>	<p>had been sent to the respective organisations. (<a href="https://www.slpproject.co.uk/wp-content/uploads/2019/12/EIP-Draft-Report-02.12.19.pdf">https://www.slpproject.co.uk/wp-content/uploads/2019/12/EIP-Draft-Report-02.12.19.pdf</a>). This document is submitted to the ExA at Deadline 4 (<b>Document Reference 8.35</b>). The Applicant has been very clear that the EIP does not form part of its application (as mitigation) and should not be taken into account in making a recommendation or decision on it.</p>
<b>BIO.2.3</b>	<p><b>For the Applicant:</b></p> <p>i) Explain whether the EIP cover sites within the Order limits. If so, indicate where these occur and how they would be secured? On what basis have the</p>	<p>1.1 Please see the Applicant's initial report on the role of the Environmental Investment Programme (EIP) that is on the Applicant's website and attached at (<b>Document Reference 8.35</b>). The EIP comprises a range of activities along the proposed replacement pipeline route to carry out localised projects such as creating or improving habitats to enhance biodiversity. The EIP is a voluntary programme and is additional to any mitigation that is required and secured under the terms of the DCO. As such, it has not been put forward as part of the application for the ExA's consideration and it is not required to be secured.</p> <p>1.2 The EIP has been developed through a series of desk studies and field work to identify suitable areas and activities for investment along the pipeline route, such as Sites of Special Scientific Interest (SSSI), Suitable Alternative Natural Greenspace (SANG) and Sites of Importance for</p>



ExQ2	Question:	Applicant response to Question:
	<p><b>sites within the EIP been identified.</b></p> <p><b>For Natural England:</b></p> <p><b>ii) In response to ExA WQ BIO.1.13 [PD-008] the Applicant confirmed that Biodiversity Net Gain is not necessary but instead is negotiating voluntary agreements under the EIP. This approach is described as being consistent with the approach of Natural England (NE) to seek voluntary agreements. Explain why voluntary agreements are sought.</b></p>	<p>Nature Conservation (SINC). This was followed by discussions with the relevant bodies that own and/or manage the selected sites. The EIP activities take the form of two main types of work: discrete projects (separate from project construction) and enhanced reinstatement. Enhanced reinstatement is where the construction of the pipeline provides an opportunity, in certain areas and on a discretionary basis, to improve the local environment beyond what existed prior to construction.</p> <p>1.3 As the EIP is a voluntary programme and not delivered as part of the DCO, it not confined to Order Limits. Some of the activities proposed such as enhanced reinstatement will fall within the Order Limits. All the EIP activities require the agreement of the relevant landowners and stakeholders and may require additional consents, as it is not proposed that they are carried out under DCO powers. At this stage, the exact scope and implementation of the EIP is still being agreed with the relevant parties. In some cases, it may be appropriate for the Applicant and its contractors to carry out the proposed activities, whilst in other cases it may be more appropriate for the landowner or the relevant authority to carry out the works with funding from the Applicant.</p> <p>1.4 In order to give greater certainty to its stakeholders about the terms of the EIP, the Applicant has issued letters of intent to the relevant parties outlining its proposed activities. The Applicant expects that, once scope of the activities and implementation is finalised, the parties will enter into contracts to govern the conduct of the works. This may form an addendum to an existing land agreement or it may be a standalone contract.</p>



ExQ2	Question:	Applicant response to Question:
<b>BIO.2.4</b>	<p><b>i) Explain the approach to determining environmental mitigation (EM).</b></p> <p><b>ii) Explain whether EM as shown in the Works Plans [AS-007], [AS-008] and [AS-009] form part of the EIP.</b></p> <p><b>iii) Explain how the EMs have been determined in terms of size and location.</b></p> <p><b>iv) Explain the purpose of each EM.</b></p> <p><b>v) How is each EM secured in the dDCO [REP3-006].</b></p> <p><b>vi) Confirm over what time-period each EM would be intended to function.</b></p> <p><b>vii) Set out the agreements with Affected Persons, if any,</b></p>	<p>1.1 In response to i), Environmental Mitigation (EM) areas for new planting were identified to mitigate the loss of trees from the project as a whole (so in contrast to EIP are properly part of the DCO application). New planting areas were identified along the pipeline corridor within the southern part of the route, south of Church Crookham, where the landscape is more rural and there is more space to accommodate additional planting. The locations for new tree and hedgerow planting were identified using surveys and professional judgement to strengthen links between existing blocks of woodland and to reinforce landscape character.</p> <p>1.2 The receptor area locations for translocated great crested newts (GCN) were identified on the basis that they were either located within the extent of an existing metapopulation or no further than 500m from a pond with confirmed GCN presence and provided suitable habitat for GCN release.</p> <p>1.3 The indicative locations for bat boxes were selected based on the presence of existing mature trees and woodland adjacent to the pipeline route in areas where bats were known to be present.</p> <p>1.4 Areas of heathland and/or acid grassland reinstatement through natural regeneration have been proposed in SSSI locations of sub-optimal habitat condition through targeted removal of scrub and secondary woodland within the Order Limits.</p> <p>1.5 In response to ii), The EM areas form part of the application for development consent and will therefore be implemented under the Development Consent Order (DCO) and not as part of the Environmental Investment Programme (EIP). Any additional measures proposed to be implemented separately by the Applicant as part of the EIP, outside of the DCO, are not shown on the Works Plans and do not form part of the application for development consent.</p> <p>1.6 In response to iii), The response to part i) of this question explains the approach that was taken to identifying the EM locations. The EM areas have been sized on the purpose and function of the mitigation proposed. The size is not a measure of the mitigation being proposed. These are areas in which the mitigation will take place and are sized to allow safe access and safe working. For</p>

ExQ2	Question:	Applicant response to Question:																																	
	that are in place to secure EMs.	<p>example, some hedge planting is proposed in existing poor quality gappy hedgerows, therefore a whole section of the hedgerow has been shown in the EM area and not just the gaps that would be planted. The EM areas for bat boxes have been sized based on the estimated number of boxes that may be required should all trees in the Order Limits be removed and the likelihood of bats being present.</p> <p>1.7 In response to iv), The purpose of each EM is shown on Figure 7.5 of the ES (<b>Application Document <a href="#">APP-061</a></b>) under the legend sub-heading of 'Measures and Mitigation'. For example, EM01 on Sheet 3 of the Works Plans (<b>Additional Submissions <a href="#">AS-048</a></b>) is shown on Figure 7.5 as an area for the installation of bat boxes; EM02 on Sheet 4 of the Works Plans is shown on Figure 7.5 as a great crested newt receptor area and so on. The intended purpose of each EM area is listed in the table below.</p> <p><b>Table 1.1: Proposed Use and Location of Environmental Mitigation Areas</b></p> <table> <tr> <th>Area No</th><th>Mitigation Type</th><th>Approximate Geographic Location</th></tr> <tr> <td>EM01</td><td>Bat Boxes</td><td>Wintershill, Bishop's Waltham</td></tr> <tr> <td>EM02</td><td>Great Crested Newts</td><td>Ashton Lane, Bishop's Waltham</td></tr> <tr> <td>EM03</td><td>Bat Boxes</td><td>Cross Lane, Bishop's Waltham</td></tr> <tr> <td>EM04</td><td>Hedge Infilling</td><td>Ashton Lane, Bishop's Waltham</td></tr> <tr> <td>EM05</td><td>Bat Boxes</td><td>Belmore</td></tr> <tr> <td>EM06</td><td>Tree Planting</td><td>Stake's Lane</td></tr> <tr> <td>EM07</td><td>Bat Boxes</td><td>Lower Preshaw Lane</td></tr> <tr> <td>EM08</td><td>Hedge Infilling</td><td>Sailor's Lane</td></tr> <tr> <td>EM09</td><td>Hedge Infilling</td><td>Wheely Down Farm Lane</td></tr> <tr> <td>EM10</td><td>Tree Planting</td><td>Wheely Down Farm Lane</td></tr> </table>	Area No	Mitigation Type	Approximate Geographic Location	EM01	Bat Boxes	Wintershill, Bishop's Waltham	EM02	Great Crested Newts	Ashton Lane, Bishop's Waltham	EM03	Bat Boxes	Cross Lane, Bishop's Waltham	EM04	Hedge Infilling	Ashton Lane, Bishop's Waltham	EM05	Bat Boxes	Belmore	EM06	Tree Planting	Stake's Lane	EM07	Bat Boxes	Lower Preshaw Lane	EM08	Hedge Infilling	Sailor's Lane	EM09	Hedge Infilling	Wheely Down Farm Lane	EM10	Tree Planting	Wheely Down Farm Lane
Area No	Mitigation Type	Approximate Geographic Location																																	
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ExQ2	Question:	Applicant response to Question:		
		EM11	Bat Boxes	Joan's Acre Wood
		EM12	Bat Boxes	Riversdown Road
		EM13	Hedge Infilling	Tithelands Lane
		EM14	Tree Planting	Uncle Bills
		EM15	Hedge Infilling	Clinkley Road, West Tisted
		EM16	Hedge Infilling	Clinkley Road, West Tisted
		EM17	Tree Planting	Stapley Lane, West Tisted
		EM18	Bat Boxes	Soames Lane, Merryfield
		EM19	Tree Planting	Smuggler's Lane
		EM20	Bat Boxes	Kitwood Lane
		EM21	Tree Planting	Hawthorn Lane, Four Marks
		EM22	Hedge Infilling	Brightstone Lane
		EM23	Bat Boxes	Brightstone Lane
		EM24	Hedge Infilling	Brightstone Lane
		EM25	Hedge Infilling	Brightstone Lane
		EM26	Bat Boxes	Gaston Lane, Upper Farringdon
		EM27	Great Crested Newts	Selbourne Road
		EM28	Great Crested Newts	Caker Lane
		EM29	Bat Boxes	Monk Wood
		EM30	Hedge Infilling	Clay's Lane
		EM31	Hedge Infilling	Clay's Lane
		EM32	Great Crested Newts	West End, Upper Froyle
		EM33	Bat Boxes	West End, Upper Froyle
		EM34	Great Crested Newts	Unnamed road, Upper Froyle

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ExQ2	Question:	Applicant response to Question:		
		EM35	Great Crested Newts	Unnamed road, Upper Froyle
		EM36	Great Crested Newts	Unnamed road, Upper Froyle
		EM37	Great Crested Newts	Gid Lane, Upper Froyle
		EM38	Bat Boxes	Dippenhall Road
		EM39	Hedge Infilling	Dippenhall Road
		EM40	Bat Boxes	Heath Lane, Crondall
		EM41	Tree Planting	Redlands Lane, Crondall
		EM42	Great Crested Newts	Ewshot Hill, A287
		EM43	Great Crested Newts	Ewshot Hill, A287
		EM44	Habitat Creation	Naishes Lane
		EM45	Habitat Creation	Naishes Lane
		EM46	Habitat Creation	Naishes Lane
		EM47	Habitat Creation	Naishes Lane
		EM48	Habitat Creation	Naishes Lane
		EM49	Bat Boxes	Naishes Lane
		EM50	Bat Boxes	Bourley Road
		EM51	Bat Boxes	Aldershot Road
		EM52	Habitat Creation	Aldershot Road
		EM53	Habitat Creation	Aldershot Road
		EM54	Bat Boxes	Cove Road, Farnborough
		EM55	Bat Boxes	Frith Hill Road
		EM56	Habitat Creation	Red Road, Lightwater
		EM57	Habitat Creation	Guildford Road, Lightwater
		EM58	Great Crested Newts	A322, Lightwater



ExQ2	Question:	Applicant response to Question:		
		<b>EM59</b>	Great Crested Newts	Blackstroud Lane East
		<b>EM60</b>	Habitat Creation	Chobham Common
		<b>EM61</b>	Habitat Creation	Chobham Common
		<b>EM62</b>	Habitat Creation	Chobham Common
		<b>EM63</b>	Habitat Creation	Chobham Common
		<b>EM64</b>	Habitat Creation	Chobham Common
		<b>EM65</b>	Habitat Creation	Chobham Common
		<b>EM66</b>	Habitat Creation	Chobham Common
		<b>EM67</b>	Bat Boxes	Longcross Road
		<b>EM68</b>	Bat Boxes	Accommodation Road
		<b>EM69</b>	Great Crested Newts	Longcross Road
		<b>EM70</b>	Great Crested Newts	The Broadway, B377
		<b>EM71</b>	Great Crested Newts	The Broadway, B377
		<p>1.8 In response to v), The DCO contains the appropriate works and land powers required to deliver EM. The Applicant is also negotiating with landowners across the route of the authorised development to secure the rights in land required to deliver EM areas. The final specification / details relating to EM would also be included in the LEMP, which would be submitted for the approval of the relevant planning authority prior to the commencement of the authorised development.</p> <p>1.9 In response to vi), The timescale that each EM is intended to function would depend on the purpose of the EM concerned. For example, the proposed heathland regeneration and hedgerow infilling and tree planting is intended to be a long-term measure, once planted. The receptor area locations for GCN is intended to be a short-term measure to provide alternative habitat during the construction phase and while terrestrial habitat is reinstated around ponds with GCN presence.</p>		

ExQ2	Question:	Applicant response to Question:
		<p>The lifespan of bat boxes, without replacement, is anticipated to be in the order of 20-25 years with an anticipated functionality throughout the construction and habitat reinstatement stages.</p> <p>1.10 In response to vii), Out of 46 landowners affected by EM areas, legal agreements have been exchanged with 19 of them and the other 27 are all in various stages of legal drafting. The Applicant anticipates reaching final agreement with the majority of the remaining landowners by the end of the examination.</p> <p>1.11 As part of the voluntary agreements with landowners the Applicant is including provision for creating the EMs identified on the Works Plans and maintaining them for a five-year period. These Land Agreements will be the primary mechanism for delivery and aftercare of the EMs, consistent with the details that will be approved in the LEMP.</p>
BIO.2.5	<p><b>Table 7.6 of the ES [APP-047] identifies engagement relevant to the biodiversity assessment. It sets out the potential opportunities for habitat enhancement at Bourley and Long Valley Site of Special Scientific Interest (SSSI). The Applicant confirms in its response to ExA WQ BIO.1.13 [REP2-040] that these are captured in the EIP and are not</b></p>	<p>1.1 The embedded design measures and good practice measures detailed in Chapter 16 of the Environment Statement (ES) (<b>Application Document APP-056</b>) and how they relate to specific potential impacts to ecological features of the Project in Chapter 7 of the ES (<b>Application Document APP-047</b>) show how minor adverse or negligible significant impacts would result at Bourley and Long Valley SSSI. As such, no offsetting or mitigation measures are necessary.</p> <p>1.2 The proposed heathland restoration and pond creation at Bourley and Long Valley SSSI (<a href="https://www.slpproject.co.uk/wp-content/uploads/2019/12/EIP-Draft-Report-02.12.19.pdf">https://www.slpproject.co.uk/wp-content/uploads/2019/12/EIP-Draft-Report-02.12.19.pdf</a>) are part of the Environmental Investment Programme which is independent of the DCO application and biodiversity impact assessment. These proposals are not related to the ES.</p> <p>1.3 Discussion of potential opportunities for habitat enhancements at Bourley and Long Valley SSSI was included in the summary of engagement in Table 7.6 of the ES (<b>Application Document APP-047</b>) to provide a full account of onsite discussions, rather than a confirmation of their future implementation or essential need to fulfil a mitigation need (in EIA regulations terms).</p>





ExQ2	Question:	Applicant response to Question:
	<p>secured through the dDCO [REP3-006]. It is also confirmed they are not offsetting or mitigation measures.</p> <p>Explain therefore why such measures are proposed, and how do they relate to the ES.</p>	
BIO.2.6	<p><b>Measure HRA1 in the REAC, which is contained within Chapter 16 of the ES [APP-056] states that heathland within statutory or non-statutory designated wildlife sites would be reinstated using natural regeneration unless otherwise agreed with NE. This would be secured through the LEMP.</b></p> <p><b>Provide details of where such heathland would</b></p>	<p>1.1 Natural regeneration of heathland habitat is proposed at:</p> <ul style="list-style-type: none"> <li>• Bourley and Long Valley Site of Special Scientific Interest (SSSI) (approximately 2ha);</li> <li>• Colony Bog and Bagshot Heath SSSI (approximately 3ha); and</li> <li>• Chobham Common SSSI (approximately 3ha).</li> </ul> <p>1.2 The pipeline installation crossing technique has yet to be finalised for Blackwater Valley, Frimley Bridge Site of Importance for Nature Conservation (SINC). If open trench installation is required, natural regeneration of the heathland would also be proposed at this location.</p> <p>1.3 Outline detail on heathland natural regeneration is provided in the Outline LEMP submitted at Deadline 4 (<b>Document reference 8.50</b>) with the final document providing comprehensive plans once the detailed design is known.</p> <p>1.4 Annual monitoring would be undertaken at these sites to inform the five-year aftercare period, which would be reviewed as required.</p>



ExQ2	Question:	Applicant response to Question:
	be affected and confirm whether such details will be included within the forthcoming Outline LEMP to be submitted at D4.	
BIO.2.7	Measure HRA2 in the REAC [APP-056] states that at heathland SSSIs targeted scrub and secondary woodland would be removed, subject to landowner consent and these areas would be reinstated as heathland or acid grassland through natural regeneration.	<p>1.1 Although there is no question in BIO.2.7 the Applicant believes it would be similar to BIO.2.6 and has answered accordingly.</p> <p>1.2 Targeted scrub and woodland removal reinstated with natural regeneration is proposed in three SSSIs as follows:</p> <ul style="list-style-type: none"> <li>• Bourley and Long Valley Site of Special Scientific Interest (SSSI) within the Environmental Mitigation areas EM52 and EM53, and within the working area;</li> <li>• Colony Bog and Bagshot Heath SSSI within the Environmental Mitigation areas EM56 and EM57, and within the working area; and</li> <li>• Chobham Common SSSI within the Environmental Mitigation areas EM60 to EM66, and within the working area.</li> </ul> <p>1.3 Principles for scrub/woodland removal and heathland natural regeneration are provided in the Outline LEMP. Sample Retention and Removal Plans have been provided at Deadline 4 (<b>Document Reference 6.6</b>). These show the level of detail that would be shown on the final plans submitted to the relevant planning authority for information. Sample Reinstatement Plans have been provided at Deadline 4, in Appendix B of the Outline LEMP. The final reinstatement plans would be provided within the final LEMP, submitted to the relevant planning authority for approval.</p>

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BIO.2.8	<p>In its response to D3 to Action Point 31 [REP3-013]), the Applicant indicated that Surrey Wildlife Trust (SWT) has confirmed it supports the Applicant's view that the mitigation measures proposed for Local Wildlife Sites are appropriate and that there will be no adverse effects on the integrity of the Thames Basin Heaths Special Protection Area (TBH SPA). This view is confirmed within a SoCG between the Applicant and SWT [REP1-004].</p> <p>Describe the extent of any proposed site-specific mitigation for Local Wildlife Sites.</p>	<p>1.1 Table 1 below details the Local Wildlife Sites that would be directly impacted by the project and the proposed habitat reinstatement post construction. No permanent habitat loss is anticipated at these sites.</p> <p>1.2 Habitat reinstatement proposed at each of these sites is provided in the outline LEMP submitted at Deadline 4 (<b>Document reference 8.50</b>) and would be included in the finalised version, secured by DCO Requirements 5, 8 and 12.</p> <p><b>Table 1. Habitat reinstatement at Local Wildlife Sites</b></p> <table><tr><th></th><th colspan="6">Habitats to be reinstated</th><th>Approximate Total Area</th></tr><tr><td>Local Wildlife Site</td><td>Woodland and shrub</td><td>Hedgerow and Woodland Field boundary</td><td>Species-rich grassland</td><td>Heathland – natural regeneration</td><td>Reedbed – natural regeneration</td><td></td><td></td></tr><tr><td>SINC – Site of Importance for Nature Conservation</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>SNCI – Site of Nature Conservation Importance</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Ewshot Meadows SINC</td><td>Y</td><td>-</td><td>Y</td><td>-</td><td>-</td><td></td><td>0.45ha</td></tr><tr><td>Wakefords Copse, Crondall SINC</td><td>Y</td><td>-</td><td>-</td><td>-</td><td>-</td><td></td><td>0.5ha</td></tr><tr><td>Cove Brook Grassland SINC</td><td>Y</td><td>-</td><td>Y</td><td>-</td><td>-</td><td></td><td>0.33ha</td></tr><tr><td>Cove Valley, Southern Grassland SINC</td><td>Y</td><td>-</td><td>Y</td><td>-</td><td>-</td><td></td><td>0.6ha</td></tr><tr><td>Blackwater Valley, Frimley Bridge SINC</td><td>Y</td><td>-</td><td>-</td><td>Y</td><td>-</td><td></td><td>0.7ha</td></tr></table>		Habitats to be reinstated						Approximate Total Area	Local Wildlife Site	Woodland and shrub	Hedgerow and Woodland Field boundary	Species-rich grassland	Heathland – natural regeneration	Reedbed – natural regeneration			SINC – Site of Importance for Nature Conservation								SNCI – Site of Nature Conservation Importance								Ewshot Meadows SINC	Y	-	Y	-	-		0.45ha	Wakefords Copse, Crondall SINC	Y	-	-	-	-		0.5ha	Cove Brook Grassland SINC	Y	-	Y	-	-		0.33ha	Cove Valley, Southern Grassland SINC	Y	-	Y	-	-		0.6ha	Blackwater Valley, Frimley Bridge SINC	Y	-	-	Y	-		0.7ha
	Habitats to be reinstated						Approximate Total Area																																																																			
Local Wildlife Site	Woodland and shrub	Hedgerow and Woodland Field boundary	Species-rich grassland	Heathland – natural regeneration	Reedbed – natural regeneration																																																																					
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Ewshot Meadows SINC	Y	-	Y	-	-		0.45ha																																																																			
Wakefords Copse, Crondall SINC	Y	-	-	-	-		0.5ha																																																																			
Cove Brook Grassland SINC	Y	-	Y	-	-		0.33ha																																																																			
Cove Valley, Southern Grassland SINC	Y	-	Y	-	-		0.6ha																																																																			
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**Biodiversity and Habitats Regulations Assessments (BIO)**



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		<table><tr><td>Frimley Hatches SNCI</td><td>-</td><td>-</td><td>-</td><td>-</td><td>Y</td><td>1.77ha</td></tr><tr><td>Frith Hill SNCI</td><td>Y</td><td>-</td><td>-</td><td>-</td><td>-</td><td>2.6ha</td></tr><tr><td>Frimley Fuel Allotments SNCI</td><td>-</td><td>Y</td><td>-</td><td>-</td><td>-</td><td>0.5ha</td></tr><tr><td>Monk's Walk North and West (incl. M3 Exchange Land) SNCI</td><td>Y</td><td>-</td><td>-</td><td>-</td><td>-</td><td>0.24ha</td></tr><tr><td>Pannell's Farm SNCI</td><td>-</td><td>-</td><td>Y</td><td>-</td><td>-</td><td>0.23ha</td></tr></table>	Frimley Hatches SNCI	-	-	-	-	Y	1.77ha	Frith Hill SNCI	Y	-	-	-	-	2.6ha	Frimley Fuel Allotments SNCI	-	Y	-	-	-	0.5ha	Monk's Walk North and West (incl. M3 Exchange Land) SNCI	Y	-	-	-	-	0.24ha	Pannell's Farm SNCI	-	-	Y	-	-	0.23ha						
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BIO.2.9	In the Local Authorities' proposed Outline LEMP [REP3-042], Spelthorne Borough Council, Runnymede Borough Council, Surrey Heath Borough Council and Rushmoor Borough Council stated that the Application contains few details regarding mitigation and compensation for	<div>1.1 Environmental Statement (ES) Chapter 17 (<b>Application Document <a href="#">APP-057</a></b>) records the likely significant effects (those that are major or moderate significance) that could occur on the project. Mitigation has been identified for all the significant effects and these actions were included as commitments in the Register of Environmental Actions and Commitments (<b>Application Document <a href="#">APP-056</a></b>) and secured within the Code of Construction Practice (CoCP) submitted with the application (<b>Document Reference 6.4 Appendix 16.1 (3)</b>).</div> <div>1.2 The ES concluded that there would only be residual significant effects for landscape and visual (Tree Preservation Orders - TPOs) and rural and urban residential and community receptors in terms of noise.</div> <div>1.3 The Applicant responded with regard to the residual effect on TPOs, in its response to First Written Questions LV.1.10 and also explained further in LV.2.4:</div>																																									

ExQ2	Question:	Applicant response to Question:
	<p>significant impacts and no assurances that the land identified for mitigation has been secured and will be funded in the medium to long term.</p> <p>Confirm site specific mitigation and compensation proposals along the proposed pipeline route, to demonstrate how these measures would be secured and to indicate over what time period they would be funded.</p>	<p><i>'Whilst reinstatement planting would establish to reinstate lost vegetation, it would not be possible to fully mitigate the permanent loss of TPO trees .... There would be restrictions to planting trees over and around pipeline easements. There may also be less scope to accommodate reinstatement of trees within the wider urban area because of restrictions caused by built development, proximity to highways and underground services for example.'</i></p> <p>1.4 However, the proposed tree planting and hedge infilling referred to in the ES and illustrated on Figure 7.5 of the ES (<b>Application Document <a href="#">APP-061</a></b>) forms '<i>... a holistic approach to partly offset the envisaged loss of trees from the overall pipeline installation project</i>' (paragraph 10.6.1 of ES Chapter 10 (Application Document APP-050). '<i>Therefore, whilst this planting cannot be considered a direct mitigation for the loss of TPO trees, because it is not proposed close to the geographical locations where TPO trees would be affected but within the more rural landscape where there would be more room to accommodate planting, it would help offset the effect on TPO trees</i>'.</p> <p>1.5 The tree planting and hedge infilling referred to in the ES, as part of the holistic approach in LV.1.10 would be planted during construction and would receive five-year aftercare in accordance with dDCO Requirement 8 (<b>Document Reference 3.1 (5)</b>). This would be funded by the Applicant. After this, the planting areas would be handed back to the landowner. Further details are provided in the Outline Landscape and Ecological Management Plan provided at Deadline 4 (<b>Document Reference 8.50</b>).</p> <p>1.6 With regard to residual effects on noise, the Applicant submitted Appendix 13.1 Noise and Vibration Technical Note Addendum (<b><a href="#">REP2-060</a></b>) at Deadline 2. In this document, the Applicant committed to providing noise barriers around properties that could experience significant effects. Commitment G107 (which is secured through the CoCP) states:</p> <p><i>"Temporary noise screening would be put in place to screen receptors at the following locations from installation activity unless a detailed assessment is undertaken which demonstrates that no significant noise impacts would occur without screening. Any additional locations at which</i></p>



ExQ2	Question:	Applicant response to Question:
		<p><i>screening would be installed would be identified in the Noise and Vibration Management Plan. The screening would comprise acoustic barrier material (such as Echo Barrier™ or similar) fitted to site fencing.</i></p> <ul style="list-style-type: none"> <li><i>Ashford: Stanwell Road, Woodthorpe Road, The Wickets, Station Road, Knapp Road, Station Approach, Kingston Road;</i></li> <li><i>Lightwater: Blackthorn Drive, Burdock Close;</i></li> <li><i>Frimley: Balmoral Drive, Berkeley Crescent, Braemar Close, Buckingham Way, Carisbrooke, Danebury Walk, Oldbury Close, Penshurst Rise, Pevensey Way, Sandringham Way, Beaumaris Parade;</i></li> <li><i>Farnborough: Ship Lane, Ringwood Road, Cove Road, Nash Close, Ship Alley, Stake Lane, Cabrol Road;</i></li> <li><i>Addlestone: Addlestone Moor, Roakes Avenue, Canford Drive, Chertsey Road;</i></li> <li><i>Staines: Ashford Road, Greenway Drive; and</i></li> <li><i>Quetta Park, Church Crookham.”</i></li> </ul> <p>1.7 With this commitment in place, the addendum concluded that there were no residual significant noise effects remaining. The addendum has been further updated in response to the discussion at the Issue Specific Hearing on 4 December 2019 (see PC.2.1 for further details).</p> <p>1.8 In conclusion, the Applicant can confirm that it has committed to site-specific mitigation for the significant noise effects in Commitment G107, which is secured through the CoCP. The Applicant would be responsible for funding the provision of the noise barriers. The noise barriers would be in place during installation, when significant noise effects could occur, and removed once installation is complete.</p>



ExQ2	Question:	Applicant response to Question:
<b>BIO.2.10</b>	<p>In their proposed Outline LEMP [REP3-042], Spelthorne Borough Council, Runnymede Borough Council, Surrey Heath Borough Council and Rushmoor Borough Council indicate that impacts on SSSI qualifying habitats and species are likely and that no information is provided in relation to these impacts within the Application.</p> <p>Respond to this statement and if impacts are likely, describe what they would be and how they would be mitigated.</p>	<p>1.1 An impact assessment on SSSI habitats and species is detailed in Chapter 7 – Biodiversity, of the Environment Statement (<b>Application Document <a href="#">APP-047</a></b>):</p> <ul style="list-style-type: none"> <li>• Bourley and Long Valley SSSI (paragraphs 7.5.39 – 7.4.147);</li> <li>• Colony Bog and Bagshot Heath SSSI (paragraphs 7.5.182 – 7.5.264); and</li> <li>• Chobham Common SSSI (paragraphs 7.5.265 – 7.5.337).</li> </ul> <p>1.2 Potential pathways to effects comprising: habitat loss/gain, fragmentation or modification; introduction/spread of Invasive Non-Native Species (INNS); species mortality/injury; species disturbance; hydrological changes to groundwater dependent terrestrial ecosystems; and air quality changes and dust deposition, are all assessed.</p> <p>1.3 Implementation of the specified embedded design measures and good practice measures listed in Chapter 7 (<b>Application Document <a href="#">APP-047</a></b>) and detailed further in Chapter 16 of the Environment Statement (<b>Application Document <a href="#">APP-056</a></b>) would ensure no significant adverse effect would result from the project.</p> <p>1.4 The assessment of SSSIs also details how potential significant effects would be avoided for Basingstoke Canal SSSI, Eelmoor Marsh SSSI and Dumsey Meadows SSSI.</p>

ExQ2	Question:	Applicant response to Question:
BIO.2.11	<p><b>In response to ExA WQ BIO.1.6 [REP2-040], the Applicant identified a number of designated ecological sites which would receive post construction ecological monitoring.</b></p> <p><b>Explain the basis on which the particular sites were identified.</b></p>	<p>1.1 Project 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 at the following sites:</p> <ul style="list-style-type: none"> <li>• Bourley and Long Valley SSSI;</li> <li>• Colony Bog and Bagshot Heath SSSI;</li> <li>• Chobham Common SSSI/NNR; and</li> <li>• Chertsey Meads LNR.</li> </ul> <p><i>The programme and content of post construction monitoring would be agreed with Natural England and recorded within the LEMP.”</i></p> <p>1.2 These statutorily designated sites are all those within the Order Limits where potential direct impacts were identified in Chapter 7 of the Environmental Statement (<b>Application Document APP-047</b>). .</p> <p>1.3 Although no site-specific post-construction objectives/targets are proposed for non-statutorily designated sites, there is an updated general project commitment (G92) that states that “A five-year aftercare period would be established for all mitigation planting and reinstatement”. The outline LEMP (<b>Document Reference 8.50</b>) lists the non-statutorily designated sites where aftercare would take place: Ewshot Meadows SINC; Wakefords Copse, Crondall SINC; Cove Brook Grassland SINC and Cove Valley, Southern Grassland SINC; Blackwater Valley which comprises Blackwater Valley, Frimley Bridge SINC and Frimley Hatches SNCI; Frith Hill SNCI and Frimley Fuel Allotments SNCI; Pannell’s Farm SNCI; and Monk’s Walk North and West (incl. M3 Exchange Land) SNCI.</p> <p>1.4 The final LEMP would also set out any adaptive measures should the proposed planting or reinstatement measures fail or underperform at all designated sites.</p>



ExQ2	Question:	Applicant response to Question:
BIO.2.12	<p>In its submissions at D3 [REP3-046], Surrey County Council stated that it agreed with the provision of a requirement for a programme of post construction monitoring and objectives and targets. Surrey County Council also considered that monitoring should be based on the designated ecological sites and that the Applicant should be asked to produce a list of these for the avoidance of doubt, including both statutory and non-statutory sites. It considers that for the statutory sites, NE should agree the monitoring and for non-statutory sites Surrey County Council and</p>	<p>1.5 Project 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 at the following sites:</p> <ul style="list-style-type: none"> <li>• Bourley and Long Valley SSSI;</li> <li>• Colony Bog and Bagshot Heath SSSI;</li> <li>• Chobham Common SSSI/NNR; and</li> <li>• Chertsey Meads LNR.</li> </ul> <p><i>The programme and content of post construction monitoring would be agreed with Natural England and recorded within the LEMP.”</i></p> <p>1.6 Although no site-specific post-construction objectives/targets are proposed for non-statutory designated sites, there is an updated general project commitment (G92) that states that ‘A five-year aftercare period would be established for all mitigation planting and reinstatement’. The outline LEMP (Document Reference 8.50) lists the non-statutory designated sites where the five-year aftercare period would take place in Surrey: Ewshot Meadows SINC; Wakefords Copse, Crondall SINC; Cove Brook Grassland SINC and Cove Valley, Southern Grassland SINC; Blackwater Valley which comprises Blackwater Valley, Frimley Bridge SINC and Frimley Hatches SNCI; Frith Hill SNCI and Frimley Fuel Allotments SNCI; Pannell’s farm SNCI; and Monk’s Walk North and West (incl. M3 Exchange Land) SNCI. The targets and objectives for these sites would be related to the habitat reinstated and not the designated site.</p> <p>1.7 The LEMP, where all post construction monitoring, management and respective objectives/targets would be detailed, would be secured by DCO Requirement 12. The LEMP would require approval from Surrey County Council (for their respective areas) prior to commencement of works.</p>

ExQ2	Question:	Applicant response to Question:
	<p>SWT should agree the monitoring.</p> <p>Comment on this proposal and indicate how this could/would be secured in the dDCO [REP3-006].</p>	
BIO.2.14	<p>In its responses at D3 to Action Point 24 [REP3-013], the Applicant states that the stem diameter size for the arboricultural survey was increased from the 75mm suggested in the British Standard BS:5837. It is explained that this was done to highlight the larger notable trees that may be impacted. Appendix 1 of REP3-013 states that each tree with a stem diameter of greater than 250mm was</p>	<p>1.1 In response to i), the Foreword of BS5837 states, <i>"This British Standard takes the form of guidance and recommendations. It should not be quoted as if it were a specification"</i>. The Applicant has therefore used BS5837 in the way it is intended to be used.</p> <p>1.2 BS5837 only references 75mm trees in its suggested approach to topographical surveys in section 4.2, where it states:</p> <p><i>"b) the position of all trees within the site with a stem diameter of 75 mm or more (see Note), measured at 1.5 m above highest adjacent ground level; NOTE In the case of woodlands or substantial tree groups, only individual trees with stem diameters greater than 150 mm usually need be plotted.</i></p> <p><i>c) the position of trees with an estimated stem diameter of 75 mm or more that overhang the site or are located beyond the site boundaries within a distance of up to 12 times their estimated stem diameter;"</i></p> <p>1.3 In response to ii), BS5837 is primarily developed for development sites and is not really designed for large linear utility infrastructure projects. The use of 75mm (i.e. three inches) over the entire length of the project's 97km would lead to a wholly disproportionate approach to a walkover tree survey intended to identify key arboricultural constraints and notable trees. Therefore, a stem</p>



ExQ2	Question:	Applicant response to Question:
	<p><b>surveyed in accordance with BS:5837.</b></p> <p><b>i) Clarify the requirements of BS:5837.</b></p> <p><b>ii) provide further justification for not following the standard of 75mm.</b></p> <p><b>iii) provide an assessment on the likely effect had the standard of 75mm been used.</b></p>	<p>diameter of 300mm was appropriate, as trees below this size are not likely to be notable within the landscape.</p> <p>1.4 Where additional surveys have been undertaken to inform detailed design, then a more detailed assessment of smaller trees has been carried out where deemed appropriate. These have informed the 'hotspot' Site Specific Plans (<b>Document Reference 8.59</b>)</p> <p>1.5 In response to iii), the Environmental Impact Assessment has been based on the worst-case scenario of removing all trees within the Order Limits, including those at 75mm and below, and therefore there would be no change to the findings of the assessment.</p>
<b>BIO.2.15</b>	<p><b>In its responses to D3 [REP3-012], the Applicant at paragraph 5.1 sets out that options of using felled trees to restore habitats elsewhere would be explored. The ExA does not consider this adequately addresses raised concerns about</b></p>	<p>1.1 The reference to using felled trees was intended to refer to cut hedge material, including trees, which could be used to create hibernacula for ecological benefit across the Order Limits and to provide direct connectivity across hedgerow gaps until reinstatement planting is in place.</p> <p>1.2 Hedgerow fragmentation necessary to facilitate the project would be both minimised and temporary. There is a project-wide commitment, secured by the REAC and consequently by DCO Requirement 5 (CoCP), <i>"to only utilise a 10m width when crossing through boundaries between fields where these include hedgerows, trees or watercourses"</i> (O1). As the Order Limits are typically around 30m in width, this represents retention of two thirds of the available hedgerow habitat. In addition, <i>"The contractor(s) would retain vegetation where practicable and in accordance with, as a minimum, the vegetation retention drawings"</i> (G91).</p>



ExQ2	Question:	Applicant response to Question:
	<p>the fragmentation and/or severance of habitats through hedgerow removal. For example, SDNPA in its Local Impact Report (LIR) [REP1-019] at paragraph 5.17.4 raised concerns about temporary connectivity.</p> <p>Notwithstanding the Applicant's comments at D2 on the Local Impact Reports [REP2-053], explain how the ExA can be assured that fragmentation and/or severance of habitats would be minimised.</p>	<p>1.3 Hedgerow gaps would be reinstated at the first seasonal opportunity following completion of that section of pipeline. However, construction would be undertaken in a phased programme and considering pipeline laying rates are expected to range between 90m and 450m per week, it is highly unlikely that any one hedgerow would remain open for the full length of the construction phase.</p> <p>1.4 Existing gaps in hedgerows have been identified and Order Limits have been designed to select these in preference over creating new gaps (Chapter 4 Design Evolution (<b>Application Document APP-044</b>)). The gaps created in hedgerows would be temporary with "<i>Hedgerows [...] reinstated to a similar style and quality to those that were removed, with landowner agreement</i>" (G93). Where appropriate, transplanted material to be reused (G89) in recreating hedgerows would also quicken reconnection. These commitments are secured by the REAC and consequently by DCO Requirements 5, 6, 8, and 12.</p>
BIO.2.17	<p>The Applicant confirmed in response to ExA WQ BIO.1.61 [REP2-040] that it would be submitting an errata to the HRA report [APP-130] and [APP-131]. The</p>	<p>1.1 A DCO application errata document has been submitted to the ExA at Deadline 4 (<b>Document Reference 8.64</b>).</p>



ExQ2	Question:	Applicant response to Question:
	errata is yet to be submitted to the Examination. Confirm at which deadline this would be submitted, noting the date in the Exam timetable for the issue of the Report on the Implications for European Sites (RIES) is 12 March 2020.	
BIO.2.18	Rushmoor Borough Council have made legal submissions on the validity of the HRA [REP3-040]. It states that “the HRA does not give a legally compliant basis for carrying out the Appropriate Assessment. The Applicant should be required to provide further information to justify its conclusions	1.1 This is addressed in the Applicant’s response to Rushmoor Borough Council’s Deadline 3 submissions ( <b>Document Reference 8.47</b> ).



ExQ2	Question:	Applicant response to Question:
	<p>on these principal issues”.</p> <p>The ExA notes the Applicant’s responses at D3 [REP3-016] to Rushmoor Borough Council’s WR and responses to the ExA’s WQs [REP2-080] and [REP2-081] which states that it has worked with NE who have confirmed its satisfaction with the project’s HRA. In addition, the ExA notes that NE have not raised any issue with the HRA Report and that a SoCG with NE has been completed and signed.</p> <p>Provide a detailed response to the above and advise whether or not the SoS has sufficient evidence and information to undertake an</p>	



ExQ2	Question:	Applicant response to Question:
	Appropriate Assessment of the Proposed Development.	
BIO.2.21	In its SoCG with the Applicant [REP1-005], NE supported the conclusion of no adverse effects on the integrity of European sites after implementation of appropriate mitigation and good practice measures. It also confirmed agreement with the assessment and conclusions in the HRA [REP2-074]. A number of local authorities have	<p>1.1 The Applicant has provided a comprehensive response regarding habitat loss during construction and the displacement of users from Suitable Alternative Natural Greenspaces (SANG) to the Thames Basin Heaths Special Protection Area (TBH SPA) in the context of the Habitats Regulations Assessment (HRA) Report (<b>Application Documents APP-130</b> and <b>APP-131</b>), in the note entitled '<i>Applicant's Response to Deadline 3 Legal Comments</i>' (<b>Document Reference 8.47</b>).</p> <p>1.2 In summary, the HRA Report concludes that no part of the TBH SPA would be permanently lost as a result of the project. Approximately 36.2 hectares of the TBH SPA, which accounts for just 0.4% of its total area, is located within the Order Limits and, even then, the implementation of measures such as narrow working and the presence of embedded design measure areas, tracks and trenchless crossings mean that a considerably smaller area than this (in fact, just nine hectares or approximately 0.1% of the total area of the TBH SPA) would be directly impacted by construction activity. Qualifying species are known to use or to have used a much larger area of the TBH SPA.</p> <p>1.3 All land affected during construction would be restored to a condition appropriate to its previous use. In addition, during regeneration of the land, habitat disturbed by the project would not be unsuitable for the qualifying species during the regeneration period (see p. 104 of the HRA Report).</p>

ExQ2	Question:	Applicant response to Question:
	<p><b>expressed concerns about the HRA, particularly in relation to habitat loss during construction (screened out as not significant on the basis that effects would be small scale and temporary) and the displacement of users from SANGs to the TBH SPA thereby having a potential impact on the integrity of the TBH SPA (ruled out at appropriate assessment stage).</b></p> <p><b>Provide further explanation/justification for their conclusions in relation to these matters. In addition, notwithstanding NE's position, the Applicant is asked to clarify whether or not there would be any direct habitat loss and/or</b></p>	<p>In this regard, habitats within the TBH SPA are dynamic and are in favourable conservation status when they provide a mosaic of habitat with a varying structure, including bare ground, promoting structural diversity of benefit to a range of species.</p> <p>1.4 The duration of disturbance would only give rise to a temporary impact in respect of what is a very small part of the TBH SPA. Further, there would be no actual disturbance to qualifying features of the TBH SPA, since construction works within the TBH SPA would be limited to the period of 1 October to 31 January (inclusive).</p> <p>1.5 Applying those findings, p. 38 of the HRA Report concludes that “given the small scale and temporary nature of habitat loss resulting from the project, any effects to the SPA are considered to be insignificant”. Natural England has endorsed that conclusion.</p> <p>1.6 As regards the displacement of recreational activity from affected SANGs, the HRA Report (Application Document <a href="#">APP-130</a>) acknowledges that construction works within SANGs could result in the displacement of recreational activities to the TBH SPA. The HRA Report also adopts a ‘worse case’ scenario approach to the assessment, assuming construction would take place during the bird breeding season and that construction would take place at all five SANGs at the same time or consecutively.</p> <p>1.7 However, the HRA Report considers the relevant factual circumstances at each affected SANG and finds that those SANGs would still be accessible and largely available for visitors for the duration of the works and it would only be the area of immediate construction works that would not, on a temporary basis, be accessible. In the majority of cases, it is only a very small proportion of the overall area of those SANGs which would not be accessible during construction. Construction works within SANGs would also be limited in duration to two years, as set out in the Code of Construction Practice (<b>Document Reference 6.4 Appendix 16.1 (3)</b>). To the extent that displacement of any recreational activities from SANGs has the potential to arise during the construction phase of the project, any displacement to the TBH SPA is therefore expected to be</p>





ExQ2	Question:	Applicant response to Question:
	<p><b>indirect impacts on the TBH SPA and supporting habitat. If, so, how would the impacts be mitigated.</b></p> <p><b>Please also look at the questions in the specific SANG section as you may wish to combine your response with some of the questions posed in that section</b></p>	<p>very low and not of a level that would result in adverse effects to the integrity of the SPA (para 5.8.29 of the HRA Report). Again, this is a conclusion which is endorsed by Natural England.</p> <p>1.8 In view of the conclusions reached in the HRA Report, no mitigation beyond the embedded design measures and good practice measures detailed in Chapter 16 of the Environment Statement (<b>Application Document <a href="#">APP-056</a></b>) are necessary.</p>
BIO.2.23	<p><b>In line with the requirement within the Conservation of Habitats and Species Regulations 63(5), provide details as to how they were able to conclude there would be no significant impacts on the integrity of the TBH SPA “beyond reasonable scientific doubt” when the application confirms</b></p>	<p>1.1 The Habitats Regulations Assessment (HRA) Report (<b>Application Documents <a href="#">APP-130</a> and <a href="#">APP-131</a></b>) does not consider the potential loss of breeding territories as a potential likely significant effect on the qualifying bird species of the Thames Basin Heaths SPA. First, the proposal would not result in the permanent loss of habitat capable of supporting qualifying species in any part of the SPA. Further, breeding territories are established on an annual basis dependent on the quality and suitability of habitat, and construction will avoid the breeding season. Therefore, the HRA Report discusses and assesses the clearance, or other damage during construction, of supporting habitat of qualifying species. The HRA Report concludes that there would be no likely significant effects on the Thames Basin Heaths SPA as a result of clearance, or other damage during construction, of supporting habitat of qualifying species (Table 4.2, at p.38). Therefore, Regulation 63(5) is not engaged in this context at all in the Applicant’s view, since this source-receptor pathway was in fact “screened out” from appropriate assessment.</p> <p>1.2 To elaborate further, habitat loss within the Order Limits would be temporary and would affect only a small proportion of the overall Thames Basin Heaths SPA. Approximately 36.2 hectares of the</p>



ExQ2	Question:	Applicant response to Question:
	that within Colony Bog and Bagshot Heath SSSI, Chobham Common SSSI, and at Bourley and Long Valley SSSI breeding territories for Dartford warblers, nightjars and woodlarks will be lost.	<p>Thames Basin Heaths SPA, which accounts for just 0.4% of its total area, is located within the Order Limits and, even then, the application of measures such as narrow working, and the presence of embedded design measure areas, tracks and trenchless crossings mean that a smaller area than this would be directly impacted by construction activity. Accounting for those factors shows that only 9ha of the SPA would be directly impacted by construction works. This is approximately 0.1% of the total extent of the Thames Basin Heath SPA.</p> <p>1.3 Works within the Thames Basin Heaths SPA would also be limited to two years and, in addition, would be seasonally constrained between the period 1 October and 31 January. As such, there would be no disturbance, loss of breeding territories or permanent loss of habitat suitable to support qualifying bird species. All habitat loss would be temporary, to be restored on completion of the works. No supporting habitats, such as those used for nesting, breeding or roosting, or prey species would be functionally reduced.</p> <p>1.4 Finally, heathland habitat is successional and requires regular intervention and management to prevent succession into unfavourable condition and ultimately scrub and woodland. Heathland in favourable condition provides an age and structurally diverse habitat that includes the provision of bare earth. The type of bare earth that would be created immediately after reinstatement of the substrates and present during the early stages of natural regeneration, would be available for use by breeding birds. Areas of bare earth are suitable for nesting nightjar (Berry, 1979) and woodlark (Sitters, et al., 1996).</p>
BIO.2.24	Comment on the claim made by Blackwater Valley Friends of the Earth [REP3-066] that “No assessment has been performed ...on the effect of the bird	<p>1.1 The Applicant considers that the claim made is incorrect. The potential for likely significant effects on the bird populations of the Thames Basin Heaths SPA as a result of the project, alone and in combination with other plans and projects, has been assessed in the Habitats Regulations Assessment (HRA) Report (<b>Application Documents <a href="#">APP-130</a> and <a href="#">APP-131</a></b>).</p> <p>1.2 Table 4.1 of the HRA Report lists the source-receptor pathways to European sites for the construction and operational stages of the project. This screening stage identified potential</p>

ExQ2	Question:	Applicant response to Question:
	<p><b>population in the SPA, contrary to the Conservation of Habitats and Species Regulations 2018 63(2)".</b></p> <p><b>You may wish to combine this answer with BIO.2.26</b></p>	<p>pathways to effect on qualifying bird species of the Thames Basin Heaths SPA through physical disturbance, non-physical disturbance, hydrological changes, air quality changes, ground contamination and invasive non-native species. Further information on this process is given in Table D.7 of the HRA Report.</p> <p>1.3 Table 4.2 takes these potential source-receptor pathways and makes an assessment of whether likely significant effects (LSE) would occur. Of the identified pathways, LSE were not anticipated but were given further consideration at Stage 2 Appropriate Assessment (due to the application of mitigation) for 'noise and visual disturbance of breeding qualifying species within the SPA' and 'noise and visual disturbance of breeding qualifying species within the SPA due to displacement of recreational activities (into the SPA) from Suitable Alternative Natural Greenspace (SANGs) crossed by the Order Limits'. No LSE were anticipated for the other pathways identified.</p> <p>1.4 Chapter 5 investigates the two LSE identified in the screening stage further to assess potential impacts to site integrity of the Thames Basin Heaths SPA. This Appropriate Assessment is summarised in Table 5.4 which is justified by evidence-supported conclusions. The assessment concludes that the potential noise and visual disturbance, in both non-breeding and breeding seasons; displaced recreational disturbance, in both seasons; and in-combination effects would have no adverse effect on site integrity.</p>
<b>BIO.2.25</b>	<p><b>Confirm the mitigation strategy that has been agreed to ensure no loss of bird breeding territories within the TBH SPA in the short and medium term, 15 -25 years, whilst the European dry heaths</b></p>	<p>1.1 First, and by way of clarification, the Habitats Regulations Assessment (HRA) Report (<b>Application Document <a href="#">APP-130</a></b>) does not discuss the potential loss of breeding territories as a potential likely significant effect on the qualifying bird species of the Thames Basin Heaths SPA. This is because breeding territories are established on an annual basis, dependent on the quality and suitability of habitat. Therefore, the HRA Report discusses and assesses the effects of clearance, or other potential damage arising during construction, on the supporting habitat of qualifying species.</p> <p>1.2 The annual records (2008-2018) of qualifying bird species territory locations are presented in Appendix C of the HRA Report (<b>Application Document <a href="#">APP-130</a></b>). This shows that all three</p>



ExQ2	Question:	Applicant response to Question:
	<b>regenerate and reach maturity.</b>	<p>qualifying bird species of the Thames Basin Heaths SPA breed in habitats widely distributed across the SPA and its component SSSIs. This suggests that there is suitable alternative breeding habitat available outside the Order Limits and that there is little fidelity to specific territory sites from year to year.</p> <p>1.3 The Applicant does not accept that regeneration of heathland habitats can take up to 25 years. Project experience of laying other pipelines (larger than that proposed in this application) in the Thames Basin Heaths SPA shows that pioneer heathland regeneration takes no more than five years and heathland habitat was evident just three years post pipeline installation. (<a href="https://corporate.southeastwater.co.uk/news-info/wildlife-corridor-in-swinley-forest-heralded-an-environmental-success">https://corporate.southeastwater.co.uk/news-info/wildlife-corridor-in-swinley-forest-heralded-an-environmental-success</a>) (<a href="https://corporate.southeastwater.co.uk/news-info/endangered-butterfly-spotted-in-swinley-forest-s-new-heathland-corridor">https://corporate.southeastwater.co.uk/news-info/endangered-butterfly-spotted-in-swinley-forest-s-new-heathland-corridor</a>). The age and structural diversity in heathland habitat created by the proposed vegetation clearance and turf stripping (which, of note, is comparable to best practice management of such sites) is also of ecological benefit. Even bare ground does not preclude the breeding of qualifying bird species with both nightjar (Berry, 1976) and woodlark (Sitters et al., 1996) recorded breeding on bare earth.</p> <p>1.4 In conclusion, since no loss of qualifying bird breeding territories is anticipated, no likely significant effects have been identified relating to essential habitat loss and seasonally timed disturbance; and as reinstatement would be achieved through natural generation, no mitigation strategy has been agreed or is required.</p>

ExQ2	Question:	Applicant response to Question:
BIO.2.26	<p>In line with the requirement within the Conservation of Habitats and Species Regulations 63(2), detail the baseline studies that were used to assess the level of impact on the TBH SPA and the Thursley, Ash, Pirbright and Chobham Special Area of Conservation (SAC) and explain how this is deemed to be adequate.</p> <p>You may wish to combine this answer with BIO.2.24</p>	<p>1.1 A full list of references used in the Habitats Regulations Assessment (HRA) Report (Application Document <a href="#">APP-130</a>) which includes the assessment on Thames Basin Heaths SPA and Thursley, Ash, Pirbright and Chobham SAC, is provided in Section 8 of the HRA Report.</p> <p>1.2 Key baseline studies used to assess the level of impact on Thames Basin Heaths SPA were:</p> <ul style="list-style-type: none"> <li>• European Site Conservation Objectives for Thames Basin Heaths Special Protection Area. Site Code: 9012141 (Version 2) – confirmation of objectives for use in test of site integrity;</li> <li>• Supplementary Advice on Conserving and Restoring Site Features. Thames Basin Heaths Special Protection Area. Issue Version 2;</li> <li>• Annual bird survey data for Thames Basin Heaths SPA undertaken by 2Js Ecology (2008-2018) – identification of qualifying bird species territories; and</li> <li>• Appendix 7.8 of the Environment Statement – Bird Factual Report (<b>Application Document <a href="#">APP-090</a></b>).</li> </ul> <p>1.3 Key baseline studies used to assess the level of impact on Thursley, Ash, Pirbright and Chobham SAC were:</p> <ul style="list-style-type: none"> <li>• European Site Conservation Objectives for Thursley, Ash, Pirbright and Chobham Special Area of Conservation. Site Code: UK0012793 – confirmation of objectives for use in test of site integrity;</li> <li>• European Site Conservation Objectives: Supplementary Advice on Conserving and Restoring Site Features. Thursley, Ash, Pirbright and Chobham Special Area of Conservation (SAC). Site Code: UK0012793; and</li> <li>• Appendix G of the HRA (<b>Application Document <a href="#">APP-131</a></b>) Conceptual Site Models for Groundwater Dependent Terrestrial Ecosystems.</li> </ul>

ExQ2	Question:	Applicant response to Question:
		<p>1.4 The following baseline studies were also used in assessment of both sites:</p> <ul style="list-style-type: none"> <li>• Appendix F of the HRA Report – European Sites Habitat Survey Report (<b>Application Document <a href="#">APP-131</a></b>);</li> <li>• Appendix 7.1 of the ES – Habitats and Botany Factual Report (<b>Application Document <a href="#">APP-081</a></b>); and</li> <li>• Online resources for habitat information i.e. <a href="http://www.magic.gov.uk">www.magic.gov.uk</a>.</li> </ul> <p>1.5 In conclusion the information gathered, in terms of desk study and field survey, provides a robust baseline to facilitate the HRA process. In the Statement of Common Ground between the Applicant and Natural England (<a href="#">REP1-005</a>), Natural England agree that the scope and methods of the surveys undertaken were appropriate.</p>
<b>BIO.2.27</b>	<b>With reference to the Conservation of Habitats and Species Regulations 63(6), in respect of the Thursley, Ash, Pirbright and Chobham SAC, explain how there would be no significant impacts on the SAC when 7.61 ha of European dry heaths are within the Order limits, open trenching is to be used and only</b>	<p>1.1 The Order Limits cross the Thursley, Ash, Pirbright and Chobham SAC through the component Colony Bog and Bagshot Heath SSSI and Chobham Common SSSI. Although there would be habitat loss in these areas, none of this would be permanent. Approximately 29.3 hectares of the Thursley, Ash, Pirbright and Chobham SAC, which accounts for just 0.57% of its total area, is located within the Order Limits. Of this, approximately 7.61ha is Annex I habitat European dry heaths (based on priority habitat information available from Natural England), which is approximately 1% of its extent across the entire SAC.</p> <p>1.2 Further, the Applicant would note that the application of measures such as narrow working and the presence of areas for embedded design measures, tracks and trenchless crossings mean that the area which would be <u>directly</u> impacted by construction activity is smaller than this. Accounting for these factors shows that the area within the Order Limits which would in fact be directly impacted by construction works is approximately 3.91ha, that is to say approximately 0.08% of the SAC's total extent. Of this area, the extent of European dry heaths directly impacted would reduce</p>



ExQ2	Question:	Applicant response to Question:
	<b>natural regeneration is relied on for mitigation.</b>	<p>from approximately 7.61 ha to 1.85 ha. This is approximately 0.1% of the extent of European dry heaths habitat in the SAC.</p> <p>1.3 As noted, all habitat loss would be temporary, to be restored on completion of the works. Topsoil and subsoils intended for reinstatement would be temporarily stockpiled as close to where they were stripped from as practicable (project commitment G155 in Chapter 16 of the ES) and different soil types and made ground would be stripped and stored separately where applicable (G159). A methodology would be produced for stripping, handling, storage and replacement of all soils to reduce risks associated with soil degradation (G151). Annual monitoring for five years would be implemented post construction to amend management, as necessary to meet pre-defined habitat targets (Implementation of G47 in the Landscape and Ecological Management Plan).</p> <p>1.4 Natural regeneration is the preferred method of reinstatement and is consistent with standard conservation measures for the restoration and management of heathland, and there is a high degree of confidence that disturbed habitats could be reinstated to pioneer heathland or acid grassland in the short to medium term by these methods (Gimingham, 1992). Heathers produce long-lived seeds capable of germinating many decades after deposition (Pywell et al., 2002). Construction in the SPA, which overlaps with the SAC, is restricted to a few months outside of the SPA bird nesting season and so the heathland seedbank would remain viable on reinstatement. English Nature (undated) state that 'natural regeneration from the soil seedbank' is the preferred option in (re-)establishment of heathland vegetation. Project experience of laying other pipelines (larger than that proposed in this application) in the Thames Basin Heaths SPA shows that pioneer heathland regeneration takes no more than five years and heathland habitat was evident, just three years post pipeline installation.</p> <p>1.5 Given the small area and the temporary nature of habitat loss, as well as the reinstatement measures proposed, the Applicant concluded that <i>"the effect on the SAC in respect of the 'European dry heaths' feature is considered to be de minimis"</i>. (see Table 4.2 at p.38 of the</p>





ExQ2	Question:	Applicant response to Question:
		<p>Habitats Regulations Assessment Report (<b>Application Document <a href="#">APP-130</a></b>). Natural England has confirmed that it supports that conclusion.</p> <p>1.6 The Applicant does not therefore consider that the ExA is required to have regard to the matters in regulation 63(6) Conservation of Species and Habitats Regulations 2017 in considering whether the authorised development would adversely affect the Thursley, Ash, Pirbright and Chobham SAC <i>due to potential disturbance to European dry heaths</i>. Those matters are relevant to effects "screened in" to appropriate assessment. As noted, the effects of potential disturbance to European dry heaths were, correctly in the Applicant's view (which is endorsed by Natural England), screened out from appropriate assessment.</p>
<b>BIO.2.28</b>	<p><b>With reference to the Conservation of Habitats and Species Regulations 63(6), provide details as to what mitigation would be provided to ensure no net loss of qualifying mature and semi mature European dry heath during the regeneration of the heathland.</b></p>	<p>1.1 Specific mitigation is not proposed or necessary for the effect on the Thursley, Ash, Pirbright and Chobham Common SAC in respect of potential disturbance to European dry heaths. As stated in Table D.8 of the Habitats Regulations Assessment (HRA) Report (<b>Application Document <a href="#">APP-130</a></b>):</p> <p><i>"...reinstatement [for dry heathland habitat] would be achieved using natural regeneration and there is a high degree of confidence that this would be successful as the seedbank would be maintained and heathland flora responds well to ground disturbance. Full regeneration to acid grassland and pioneer heathland is anticipated to occur within the short term (i.e. within five years following construction) (South East Water, 2018). Based on priority habitat information available from Natural England, the area of 'European dry heaths' within the Order Limits is estimated to comprise approximately 1% of the area of this habitat within the SAC. Given the relatively small area of loss and reinstatement measures proposed, the effect on the SAC in respect of the 'European dry heaths' feature is considered to be de minimis".</i></p> <p>1.2 Therefore, the effect on the SAC in respect of European dry heaths was <i>screened out</i> from appropriate assessment. In the Applicant's view, this means that regulation 63(6), which relates</p>





ExQ2	Question:	Applicant response to Question:
		<p>to the assessment of effects <i>screened in</i> to appropriate assessment, is in fact not engaged in this context.</p> <p>1.3 Vegetation clearance and turf stripping, similar in nature to that required in connection with the construction phase of the project, are often employed in heathland habitat management and restoration programmes (Symes and Day, 2003). The heathland habitat is dynamic but is often in unfavourable condition if left unmanaged due to its low structural diversity, lack of bare ground and, scarcity of the early stage of succession.</p> <p>1.4 The SSSI condition report for the location at which the Order Limits cross the Chobham Common SSSI component of the Thursley, Ash, Pirbright and Chobham SAC (undertaken by Natural England in 2012 and 2013) states that the SSSI units are in unfavourable recovering status with management required to increase the proportion of early stages of heathland succession. The vegetation clearance and essential turf stripping proposed within the Order Limits in these locations is comparable to heathland management techniques which would be necessary to meet the habitat targets.</p> <p>1.5 The Applicant stands by these conclusions and notes that Natural England endorses them.</p>



## References

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Pywell, R.F., Pakeman, R.J., Allchin, E.A., Bourn, N.A.D., Warman, E.A., Walker, K.J., 2002. The potential for lowland heath regeneration following plantation removal. *Biol. Conserv.* 108, 247–258.

Sitters, H. P., Fuller, R.J., Hoblyn, R.A., Wright, M.T., Cowie, N., Bowden, C.G.R. 1996. The Woodlark *Lullula arborea* in Britain: population trends, distribution and habitat occupancy. *Bird Study*, 32(2), pp. 172-187



## **2 Appendices**

### **Appendix BIO.2.2.1: Environmental Investment Programme**



As part of the SLP Project, we have developed an Environmental Investment Programme (EIP). The EIP comprises a range of activities along the proposed replacement pipeline route to carry out localised projects such as creating or improving habitats to enhance biodiversity. This report contains all offers made to relevant bodies to date and will be updated as the program progresses. We are continuing to work with these bodies to confirm the final package we can offer at each site. The EIP is a voluntary program and should be viewed as separate from the activities required under the terms of our proposed development consent order.

## 1. Introduction

### 1.1 The Southampton to London Pipeline Project

In December 2017, we began to talk publicly about our intention to replace 90km of our 105km aviation fuel pipeline that runs from our Fawley Refinery near Southampton to our West London Terminal storage facility in Hounslow (the project).

As part of our proposed program of works, Esso intends to carry out additional voluntary actions along the route under its Environmental Investment Program.

### 1.2 What is the Environmental Investment Programme?

The Environmental Investment Programme (EIP) comprises a range of voluntary activities along the replacement pipeline route to fund and/or carry out works within designated sites and/or areas of social/community importance. It is in addition to any mitigation/reinstatement activities identified within our Environmental Statement. The EIP will be developed in conjunction with environmental stakeholders.

The EIP is a voluntary programme and should be considered separate from the activities required to fulfill the project's application for development consent. We have given a variety of commitments governing our work as part of the Register of Environmental Actions and Commitments (the REAC) that are binding and secured through the DCO. The REAC contains the embedded design, good practice and environmental mitigation activities that have been identified as part of our formal environmental impact assessment. For example, Esso is already required to reinstate any land used by the project and to replant vegetation removed by the project. The EIP is also separate to any specific agreements we have made with land owners to govern how we work on their land. This is because we see the EIP as more of an opportunity to create an overall agenda of environmental actions with key stakeholders or designated sites that typically align with a wider strategic environmental management plan.

The EIP should be considered as separate to Corporate Social Responsibility (CSR). CSR is typically a programme of socio-environmental activities within the community (e.g. assisting to create community schemes, educational events and volunteering). A programme of CSR activities is in development and will be launched once development consent is granted.

### 1.3 Why has the program been created?

As a good neighbour and responsible operator, we believe that we should contribute to the communities who will become neighbours of the buried replacement pipeline. As such, the project has selected to create a voluntary EIP.

### 1.4 When will the program be delivered?

The programme will be delivered if the project receives development consent, and will take place during the period of installation, estimated to be 2021-2022.

### 1.5 How the programme was developed?

The EIP has been developed through a series of desk studies and field work to identify suitable areas and activities for investment along the pipeline route, such as Sites of Special Scientific Interest (SSSI), Suitable Alternate Natural Greenspace (SANG), and Sites of Importance for Nature Conservation (SINC).

This was followed by discussions with the relevant bodies that own and/or manage the selected sites. In combination with these initial discussions we held multiple meetings and site walkovers to understand the needs of biodiversity to propose a programme of activities, specific to each site that addresses local challenges whilst considering the long-term strategy for the site.

## 1.6 Scope of the EIP

The following sections of the report documents the activities discussed to date with each of the relevant managing bodies. These take the form of two main types of work: discreet projects (separate from project construction) and enhanced reinstatement. Enhanced reinstatement is where the construction of the pipeline provides an opportunity, in certain areas and on a discretionary basis, to improve the local environment beyond what existed prior to construction.

Each of these proposals are subject to the replacement pipeline project being granted development consent. The proposed activities may also be subject to landowner consent and may require further permissions. Should the application receive development consent, further detail would be required to implement these activities at a suitable date closer to the construction period to allow for potential ecological change.

Within heathland SSSIs, the project has committed under HRA-2 of the Register of Environmental Actions and Commitments (Section 16.3, 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.

A number of the proposed EIP activities are highlighted in the following table.

**Table 1.1: EIP Activities that will be carried out by onsite contractors during the construction phase.**

Activity	Biodiversity Impact
Scrub Clearance	Encourages a variety of habitat including grassland which creates a matrix of habitats across the site.
Glade Creation	Glades encourage a variety of habitat including grassland which creates a matrix of habitats across the site.
Pond Creation	Encourages a greater variety of flora and fauna species through freshwater availability and develops a matrix of habitats across the site.
Scaloping	Scaloping and reseeded increases the surface area of edge habitat which encourages a greater variety of floral species. In conjunction with a reinstated footpath it will encourage members of the public to use the space provided as well as protecting flora from unnecessary trampling.
Heathland Restoration	Heathland is a priority habitat (a rare and threatened habitat). Heathland is particularly important for annex 1 bird species (including Wood Lark, Nightjar, and Dartford Warbler) and encourages a rich variety of highly specialised flora and fauna, especially reptiles.
Invasive Species Control	Manages levels of invasive species to enable the recovery of the natural habitat.
Livestock Fencing	Stock fencing creates additional areas which can be managed by grazing. Livestock grazing is particularly important in maintaining species rich habitats. It prevents scrub encroachment and controls



Activity	Biodiversity Impact
	more aggressive species which would otherwise dominate these areas.
Bare Earth Scrapes	Creates breeding opportunities and egg laying habitat for invertebrates and reptiles, including the sand lizards.
Specific Localised Activity	E.g. Fixed crossings that resolve challenges for specific sites.

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## 2. Ewshot Meadows and Wakefield Copse

### 2.1 Basic Information

Site Information	
Route Section	D
Section Length	1km
Area Classification	Suitable Alternate Natural Greenspace (SANG)
Owned By	Taylor Wimpey
Managed By	Taylor Wimpey
Local Authority	Hart District Council
County Region	Hampshire County Council
Other Features	This is a non-statutory environmental site, with protected habitats and planning SANG designation.
Phase 1 Habitat Classification	Fen, Marsh and Swamp, Improved Grassland, Neutral Grassland, Broadleaved, Mixed and Yew Woodland

### 2.2 Location

Ewshot Meadows is located south of Fleet and Church Crookham. The Suitable Alternate Natural Greenspace (SANG) borders Naishes Lane to the west and Tadpole Lane to the east with Quetta Park located to the north. The order limits are contained to the western edge of the SANG entering from the south west and running north east, parallel to Naishes Lane. Wakefield copse is located due north of Quetta Park and is bounded by Naishes Lane to the west and Beacon Hill Road to the east. The Order Limits enter the Copse approximately 250m south of Sandy Lane where they traverse north east across the copse and then east along the boundary of Fleet Business Park before joining the Beacon Hill Road moving north.

### 2.3 Proposed EIP Activity

Location	Activity	Benefit
Ewshot Meadows (Figure No. B2325300-JAC-000-COE-DRG-000107 Area A).	Scrub clearance as noted at the location in the attached figure over an area of 1000m <sup>2</sup> outside of the order limits. For information and subject to further detail being agreed, an initial estimate of the value of this work is £7,500 on standard contractor rates.	Scrub clearance encourages a variety of habitat including grassland which creates a matrix of habitats across the site.
Ewshot Meadows (Figure No. B2325300-JAC-000-COE-DRG-000107 Area B).	Pond restoration as noted at the location in the attached figure. For information and subject to further detail being agreed, an initial estimate of the value of this work is £2,500 on standard contractor rates.	Pond restoration encourages a greater variety of flora and fauna species through freshwater availability and develops a matrix of habitats across the site.



Location	Activity	Benefit
Wakefield Copse (Figure No. B2325300-JAC-000-COE-DRG-000107 Area C).	Glade creation as noted in the attached figure. Four glades will be created with an approximate area of 60m <sup>2</sup> each. For information and subject to further detail being agreed, an initial estimate of the value of this work is £5,000 on standard contractor rates.	Glade Creation encourages a variety of habitat including grassland which creates a matrix of habitats across the site. Glades will be formed of a woodland/grassland mix.

## 2.4 Enhanced Reinstatement

Location	Activity	Benefit
Ewshot Meadows and Wakefield Copse (Figure No. B2325300-JAC-000-COE-DRG-000107).	Scrub clearance considered under enhanced reinstatement.	Scrub clearance encourages a variety of habitat including grassland which creates a matrix of habitats across the site and easement. Upon reinstatement the working area will be replanted with a suitable seed mix.

### 3. Bourley and Long Valley SSSI

#### 3.1 Basic Information

Site Information	
Route Section	E
Section Length	2km
Area Classification	Site of Special Scientific Interest (SSSi)
Owned By	Ministry of Defense
Managed By	Hampshire & Isle of Wight Wildlife Trust (HloWWT)
Local Authority	Surrey Heath District Council
County Region	Surrey County Council
Other Features	n/a
Phase 1 Habitat Classification	Broadleaved mixed, and yew woodland, neutral grassland, improved grassland

#### 3.2 Location

The Bourley and Long Valley Site of Special Scientific Interest (SSSI) is located to the east of Church Crookham within a parcel of land owned by the MoD. It is bounded by the B3013 (Reading Road South) to the east, the A323 (Norris Hill Road/Fleet Road) to the North, and the A325 (Farnborough Road) to the West. The Order Limits through the SSSI are confined to the northwestern corner. They enter the designated area along the western boundary of Tweseldow Racecourse and move northeast, crossing the Aldershot road up to Norris Bridge. The application shows the pipeline will be installed via open cut techniques up to the Aldershot Road whereby a trenchless crossing is planned to avoid wetland areas and will run for approximately 580m. Open cut trench techniques will be used up to the A323 at which point a trenchless crossing will be required to pass beneath the A323.

#### 3.3 Proposed Activity

Location	Activity	Benefit
Bourley and Long Valley (Figure No. B2325300-JAC-000-COE-DRG-000102 Area A).	Heathland restoration as noted at the location in the attached figure for an area approximately 300m <sup>2</sup> . For information and subject to further detail being agreed, an initial estimate of the value of this work is £5,000 on standard contractor rates.	Heathland is a priority habitat (a rare and threatened habitat). Heathland is particularly important for annex 1 bird species (including Wood Lark, Nightjar, and Dartford Warbler) and encourages a rich variety of highly specialised flora and fauna, especially reptiles.
Bourley and Long Valley (Figure No. B2325300-JAC-000-COE-DRG-000102 Area B).	Creation of a pond (provided the location remains outside the easements of the new and existing operational pipelines) within the location noted in the attached figure. For information and subject to further detail being agreed, an initial estimate of the value of this work is £1,000 on standard contractor rates.	A groundwater filled pond encourages a greater variety of flora and fauna species through freshwater availability.

## 4. Southwood Country Park

### 4.1 Basic information

Site Information	
Route Section	E
Section Length	1km
Area Classification	Site of Importance for Nature Conservation (SINC) & non-statutory site
Owned By	Rushmoor Borough Council
Managed By	Rushmoor Borough Council
Local Authority	Rushmoor Borough Council
County Region	Hampshire County Council
Other Features	Construction compound to the south
Phase 1 Habitat Classification	Improved Grassland, Neutral Grassland and Broadleaved, mixed and yew woodland

Southwood Country Park is located within Farnborough and is bounded by the A327 (Ively Road) to the west, the A327 (Elles Road) to the south and Southwood Road/Cove Road to the north. The Cove Brook flows from the south of the park beneath the A327 through open grassland before flowing through broadleaved woodland and exiting the park beneath Cove Road in the north. The northern expanse of the country park bounded by the Rushmoor Community FC and Cove Cricket Club has been designated as a Site of Importance for Nature Conservation (SINC). As of 2018 the southern extent of the park, which was historically part of the Southwood Golf Course until its closure, was designated as a Suitable Alternative Natural Greenspace (SANG) by Rushmoor Borough Council. As documented in the application the pipeline route enters into the Country Park beneath the A327 (Ively Road) via directional drilling. The pipeline will then be installed via open cut technique in a northeasterly direction towards Cove Road.

### 4.2 Proposed activity

Location	Activity	Benefit
Cove Valley (Figure B2325300-JAC-000-COE-DRG-000100 Area A).	Signage and Interpretation boards as noted at the locations in the attached figure. For information and subject to further detail being agreed, an initial estimate of the value of this work is £1,000 on standard contractor rates.	Signage detailing information on local flora and fauna species encourage local conservation efforts.
Cove Valley (Figure B2325300-JAC-000-COE-DRG-000100 Area B).	Landscaping Improvements at the entrance from Cove Road as noted at the location in the attached figure. For information and subject to further detail being agreed, an initial estimate of the value of this work is £1,000 on standard contractor rates.	Landscaping Improvements encourage visitors to the area for public recreation.
Cove Valley (Figure B2325300-JAC-000-COE-DRG-000100)	It is envisaged that hand tools to the value of £500 will be supplied to Cove Brook Greenway group volunteers.	Contribution of tools to Cove Brook Greenway group volunteers encourages local communities to manage habitats within the area.

Location	Activity	Benefit
Cove Valley (Figure B2325300-JAC-000-COE-DRG-000100 Area C).	Scrub and Tree Clearance as noted at the location in the attached figure over an area of approximately 400m <sup>2</sup> . For information and subject to further detail being agreed, an initial estimate of the value of this work is £5,000 on standard contractor rates.	Scrub and Tree Clearance encourages a variety of habitat including grassland which creates a matrix of habitats across the site.

### 4.3 Enhanced Reinstatement

Location	Activity	Scope
Cove Valley (Figure B2325300-JAC-000-COE-DRG-000100) within the order limits.	Scrub and Tree clearance considered as enhanced reinstatement.	Scrub and Tree clearance encourages a variety of habitat including grassland which creates a matrix of habitats across the site.
Cove Valley (Figure B2325300-JAC-000-COE-DRG-000100) within the order limits.	Scalloping along footpath considered under enhanced reinstatement.	Scalloping increases the surface area of edge habitat which encourages a greater variety of floral species. In conjunction with a reinstated footpath it will encourage members of the public to use the space provided as well as protecting flora from unnecessary trampling.

## 5. Queen Elizabeth Park

### 5.1 Basic information

Site Information	
Route Section	E
Section Length	600m
Area Classification	Non-statutory woodland
Owned By	Rushmoor Borough Council
Managed By	Rushmoor Borough Council
Local Authority	Rushmoor Borough Council
County Region	Hampshire County Council
Other Features	Construction compound in the carpark of Cabrol Road play area.
Phase 1 Habitat Classification	Broadleaved, mixed and yew woodland

### 5.2 Location

Queen Elizabeth Park is located within Farnborough, immediately north of Farnborough Main Railway Station. The railway borders the southern extent of the park, with residential properties on Cabrol Road, Pierrefondes Avenue and Empress Avenue bordering the Western and Northern extents. The A325 borders the east extent of the park. As documented in the application the pipeline route enters from the west via a trenchless crossing within the playground near to Cabrol Road. The route moves east and then northeast along the northern edge of properties on Queen Victoria Court before exiting the park via a trenchless crossing in line with the footpath leading out of the park and onto the A325.

### 5.3 Proposed activity

Location	Activity	Benefit
Queen Elizabeth Park (Figure B2325300-JAC-000-COE-DRG-000105 Area A).	Localised Rhododendron control adjacent to the order limits as noted at the location in the attached figure. For information and subject to further detail being agreed, an initial estimate of the value of this work is £5,000 on standard contractor rates.	Localised Rhododendron control within the park increases light availability to the understory and creates more diverse edge habitat.
Queen Elizabeth Park.	It is envisaged that a Park Management plan could be produced at an initial estimate of £3,500 subject to further scoping.	Park Management Plan provides scope and strategy for addressing biodiversity in the longer term.

### 5.4 Proposed Enhanced Reinstatement

Location	Activity	Scope
Queen Elizabeth Park (Figure B2325300-JAC-000-COE-DRG-000105) within the order limits.	Creating a ride along the existing path considered under enhanced reinstatement.	Create a ride along the existing path within our order limits by scalloping the woodland edge, wildflower replanting and through understory replanting to improve the poor



Location	Activity	Scope
		grade woodland. Such activities will increase light availability to the understory creating edge habitat and improving biodiversity.

DRAFT

## 6. Frith Hill SNCI

### 6.1 Basic information

Site Information	
Route Section	E
Section Length	2km
Area Classification	Site of Nature Conservation Interest (SNCI)
Owned By	Ministry of Defense
Managed By	Ministry of Defense
Local Authority	Surrey Heath Borough Council
County Region	Surrey County Council
Other Features	Construction compound to the west
Phase 1 Habitat Classification	Woodland

### 6.2 Location

Frith Hill is classified as a Site of Nature Conservation Interest (SNCI) and is located approximately 1km east of Frimley within an area of land owned by the MoD. The area is bordered by Catherine's Road to the west and the B3015 (Deepcut Bridge Road) to the east. The Order Limits run west to east, however they fork in the middle of the SNCI with a smaller branch connecting to the B3015 further south to allow for access to a construction area. The main pipeline route runs north east through Frith Hill, passing Pine Ridge Golf Course where it eventually joins the B3015 at Colony Gate Railway Station. As documented in the application the pipeline will be installed via open cut techniques.

### 6.3 Proposed activity

Location	Activity	Benefit
Frith Hill (Figure No. B2325300-JAC-000-COE-DRG-000104 Area A).	Creation of four glades approximately 60m <sup>2</sup> at the locations noted in the attached figure. For information and subject to further detail being agreed, an initial estimate of the value of this work is £5,000 on standard contractor rates.	Glades encourage a variety of habitat including grassland which creates a matrix of habitats across the site.

### 6.4 Proposed Enhanced Reinstatement

Location	Activity	Benefit
Frith Hill (Figure No. B2325300-JAC-000-COE-DRG-000104) within order limits.	Tree Clearance and scalloping within order limits considered under our commitment to reinstatement.	Increases surface area of edge habitat which encourages a greater variety of floral species.

## 7. Colony Bog/Bagshot Heath

### 7.1 Basic information

Site Information	
Route Section	F
Section Length	5km
Area Classification	Site of Special Scientific Interest (SSSI)
Owned By	Ministry of Defense
Managed By	Surrey Wildlife Trust
Local Authority	Surrey Heath Borough Council
County Region	Surrey County Council
Other Features	Construction compound on Turf Hill Section
Phase 1 Habitat Classification	Woodland

### 7.2 Location

Colony Bog and Bagshot Heath is a large Site of Special Scientific Interest (SSSI) located south of Lightwater and east of Heatherside, Surrey. The SSSI comprises an area of approximately 12km<sup>2</sup>, however the Order Limits follow the western border of the SSSI alongside the B3015 (The Maultway) from Colony Gate Railway Station. The Order Limits move east at Heatherside Corner and keep to the greenspace south of B311-Red Road up to the junction of Lightwater Road where they enter Turf Hill.

### 7.3 Proposed Activity

Location	Activity	Benefit
Colony Bog/Bagshot Heath (Figure No. B2325300-JAC-000-COE-DRG-000101 Area A).	Creation of bare earth scrapes at the location noted in the attached figure. For information and subject to further detail being agreed, an initial estimate of the value of this work is £3,000 on standard contractor rates.	Bare earth scrapes create breeding opportunities and egg laying habitat for reptiles and invertebrates.
Colony Bog/Bagshot Heath (Figure No. B2325300-JAC-000-COE-DRG-000101 Area B).	Bracken removal and scrub clearance within the location noted in the attached figure. For information and subject to further detail being agreed, an initial estimate of the value of this work is £3,000 on standard contractor rates.	Bracken removal and scrub clearance creates opportunities for a greater variety of flora to grow by increasing sunlight availability to the understory. It also creates opportunities for reptiles by increasing the availability of refuge habitat alongside basking habitat.
Colony Bog/Bagshot Heath (Figure No. B2325300-JAC-000-COE-DRG-000101 Area C).	Creation of four glades approximately 60m <sup>2</sup> at the locations noted in the attached figure and scalloping of the adjacent scrub. For information and subject to further detail being agreed, an initial estimate of the value of this work is £5,000 on standard contractor rates.	Glades encourage a variety of habitat including grassland which creates a matrix of habitats across the site. Scalloping increases surface area of edge habitat which encourages a greater variety of floral species. Scalloping creates opportunities for reptiles by increasing the availability of refuge habitat alongside basking habitat.



Location	Activity	Benefit
Colony Bog/Bagshot Heath (Figure No. B2325300-JAC-000-COE-DRG-000101 Area D).	Signage and interpretation boards at the location noted in the attached figure. For information and subject to further detail being agreed, an initial estimate of the value of this work is £1,000 on standard contractor rates.	Signage detailing information on local flora and fauna species encourage local conservation efforts.

## 7.4 Proposed Enhanced Reinstatement

Location	Activity	Benefit
Colony Bog/Bagshot Heath (Figure No. B2325300-JAC-000-COE-DRG-000101) within order limits.	Tree clearance and scalloping within order limits considered under our commitment to reinstatement.	Increases surface area of edge habitat which encourages a greater variety of floral species.

## 8. Chobham Common

### 8.1 Basic information

Site Information	
Route Section	F
Section Length	2.5km
Area Classification	Site of Special Scientific Interest (SSSI)
Owned By	Surrey County Council
Managed By	Surrey Wildlife Trust
Local Authority	Surrey Heath Borough Council
County Region	Surrey County Council
Other Features	Construction compound along route
Commitments	N/A
Phase 1 Habitat Classification	Lowland Heathland, Lowland Fens, Deciduous Woodland

### 8.2 Location

Chobham Common Site of Special Scientific Interest (SSSI) is located just north of Chobham, Surrey and covers an area 6.65km<sup>2</sup>. The B383 (Windsor Road) runs along the western edge of the common with Staple Hill road running along the north west and northern boundary. Gracious Pond Road borders the common to the south. As documented in the application the Order Limits enter the common from the B383 (Windsor Road) and move southwest to northeast for approximately 2.2km. Given the presence of wetland areas, crossed with a number of small watercourses that flow into the Gracious Pond Brook and The Chobham Park Brook, the pipeline will be installed via trenchless crossing for a 500m section through the middle of the common. Outside of this area an open cut installation method will be used.

### 8.3 Proposed activity

Location	Activity	Benefit
Chobham Common (Figure No. B2325300-JAC-000-COE-DRG-000103).	Targeted scrub clearance throughout Chobham Common for an area approximately 1,000m <sup>2</sup> . For information and subject to further detail being agreed, an initial estimate of the value of this work is £7,500 on standard contractor rates.	Targeted scrub clearance creates opportunities for reptiles by increasing the availability of refuge habitat alongside basking habitat.
Chobham Common (Figure No. B2325300-JAC-000-COE-DRG-000103).	Laying of a 1km water pipe east from the B383. For information and subject to further detail being agreed, an initial estimate of the value of this work is £20,000. Note this does not include connection to the water supply.	Laying of pipe to facilitate grazing in the common (no connection to water supply and subject to any consents) – Livestock grazing plays a key role in maintaining species rich habitats by controlling more aggressive flora species that would otherwise dominate these areas and therefore helps prevent scrub encroachment.
Chobham Common (Figure No. B2325300-JAC-000-COE-DRG-000103).	Installation of a crossing point over the Esso fuel pipelines (location of	Crossing point for heavy machinery over fuel pipelines to allow for management of



Location	Activity	Benefit
	which to be confirmed by the relevant stakeholders). For information and subject to further detail being agreed, an initial estimate of the value of this work is £2,000 on standard contractor rates.	both sides of the SSI without having to drive extensive routes around Chobham Common.
Chobham Common (Figure No. B2325300-JAC-000-COE-DRG-000103).	Entomology survey at preconstruction stage within order limits. Note that survey findings will not impact the application. For information and subject to further detail being agreed, an initial estimate of the value of this work is £6,000 on standard contractor raters	Understanding populations and habitats of local invertebrates can provide useful information for management of the common.

## 9. Chertsey Meads

### 9.1 Basic information

Site Information	
Route Section	G
Section Length	1.3km
Area Classification	Local Nature Reserve (LNR)
Owned By	Runnymede Borough Council
Managed By	Runnymede Borough Council
Local Authority	Runnymede Borough Council
County Region	Surrey County Council
Other Features	N/A
Phase 1 Habitat Classification	Lowland Meadows and Good Quality Semi-improved grassland.

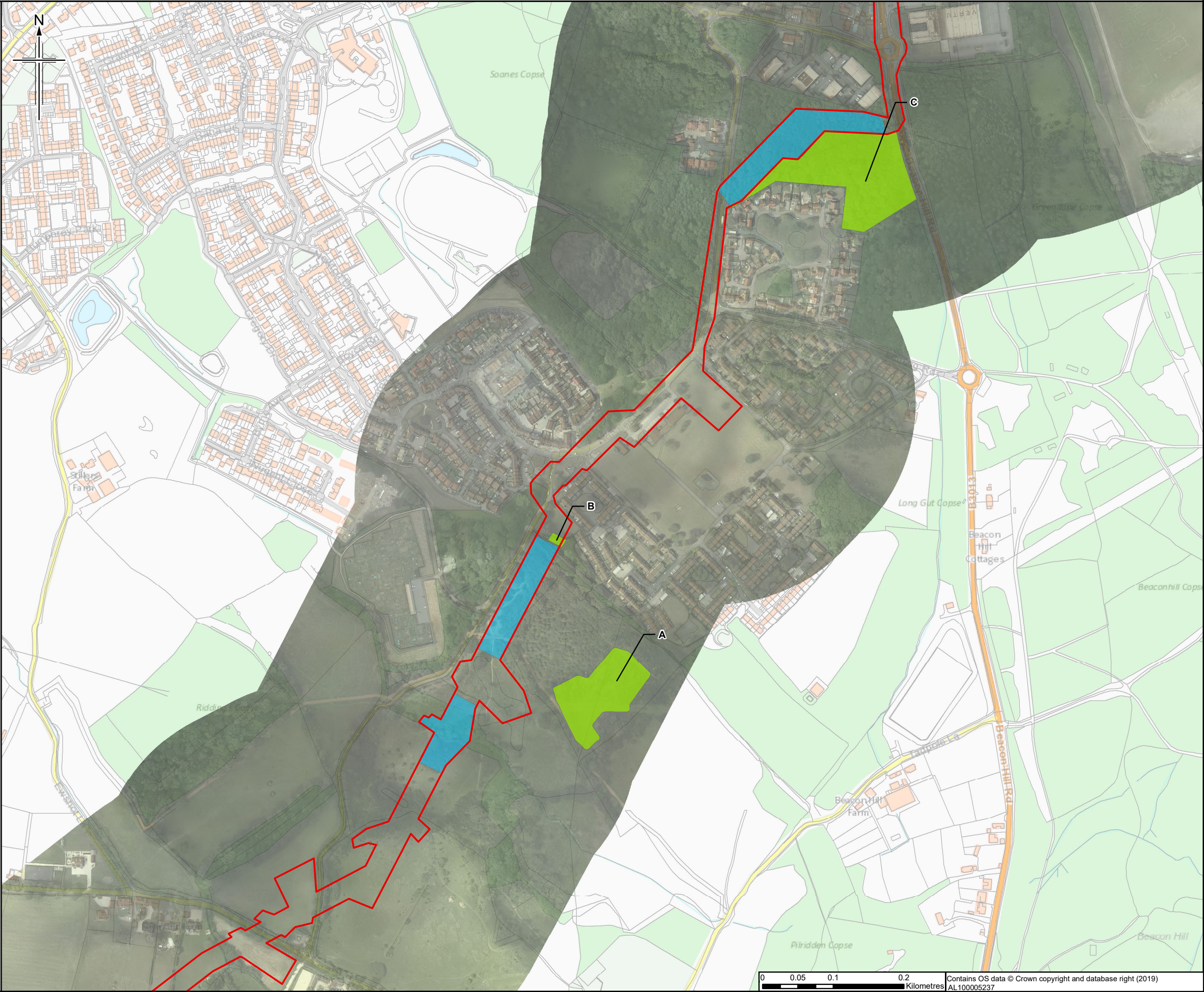
### 9.2 Location

Chertsey Meads comprises an open greenspace on the banks of the River Thames. The Local Nature Reserve (LNR) located in the east of Chertsey is bounded by the Bourne to the south and the River Thames along the northern and eastern border. The Order Limits enter the meads from the east via a trenchless crossing beneath The Bourne and to the south of Meads Lane before moving north east up to the Chertsey Meads Car Park. The Order Limits then shift north west with a large section to the south east designated as a stringing area to enable the pipeline to cross beneath the Thames via a trenchless crossing. The application shows the pipeline to be installed via open cut technique within Chertsey Meads.

### 9.3 Proposed activity

Location	Activity	Benefit
Chertsey Meads (Figure B2325300-JAC-000-COE-DRG-000108 Area A)	Fencing and cattle grids in the west of the meads as noted in the attached figure for works detailed within the Chertsey Meads Cattle Grazing Scheme (ES/200/01). For information and subject to further detail being agreed, an initial estimate of the value of this work is £30,000 on standard contractor rates.	Livestock plays a key role in maintaining species rich habitats through the control of more aggressive plant species that may otherwise dominate the area. Livestock management can help prevent scrub encroachment.






- Legend**
- Order Limits
  - Enhanced Reinstatement
  - Environmental Investment Programme Activity
  - A:** Scrub Clearance
  - B:** Restoration of Existing Pond
  - C:** Creation of Glades

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Drawing Title  
ENVIRONMENTAL INVESTMENT PROGRAMME  
OF ACTIVITIES FOR EWSHOT MEADOWS  
AND WAKEFIELD COPSE

Drawing Status		For Issue	
Scale	1:5,000	@ A3	DO NOT SCALE
Jacobs No.	B2325300		

Figure No. B2325300-JAC-000-COE-DRG-000107

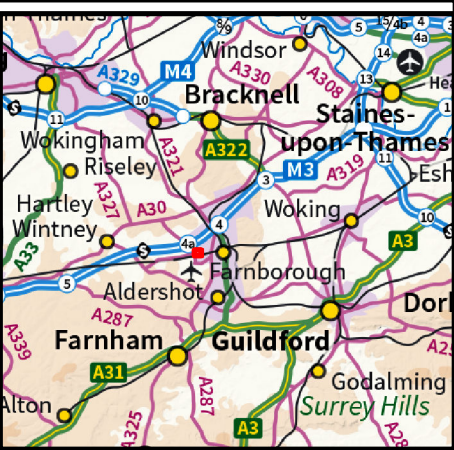
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**Legend**

- Order Limits
- Environmental Investment Programme Activity
- Enhanced Reinstatement

**A:** Signage and interpretation boards

**B:** Landscaping improvements

**C:** Clearance of encroaching scrub

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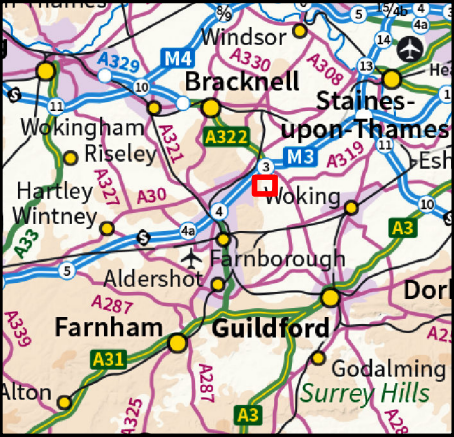
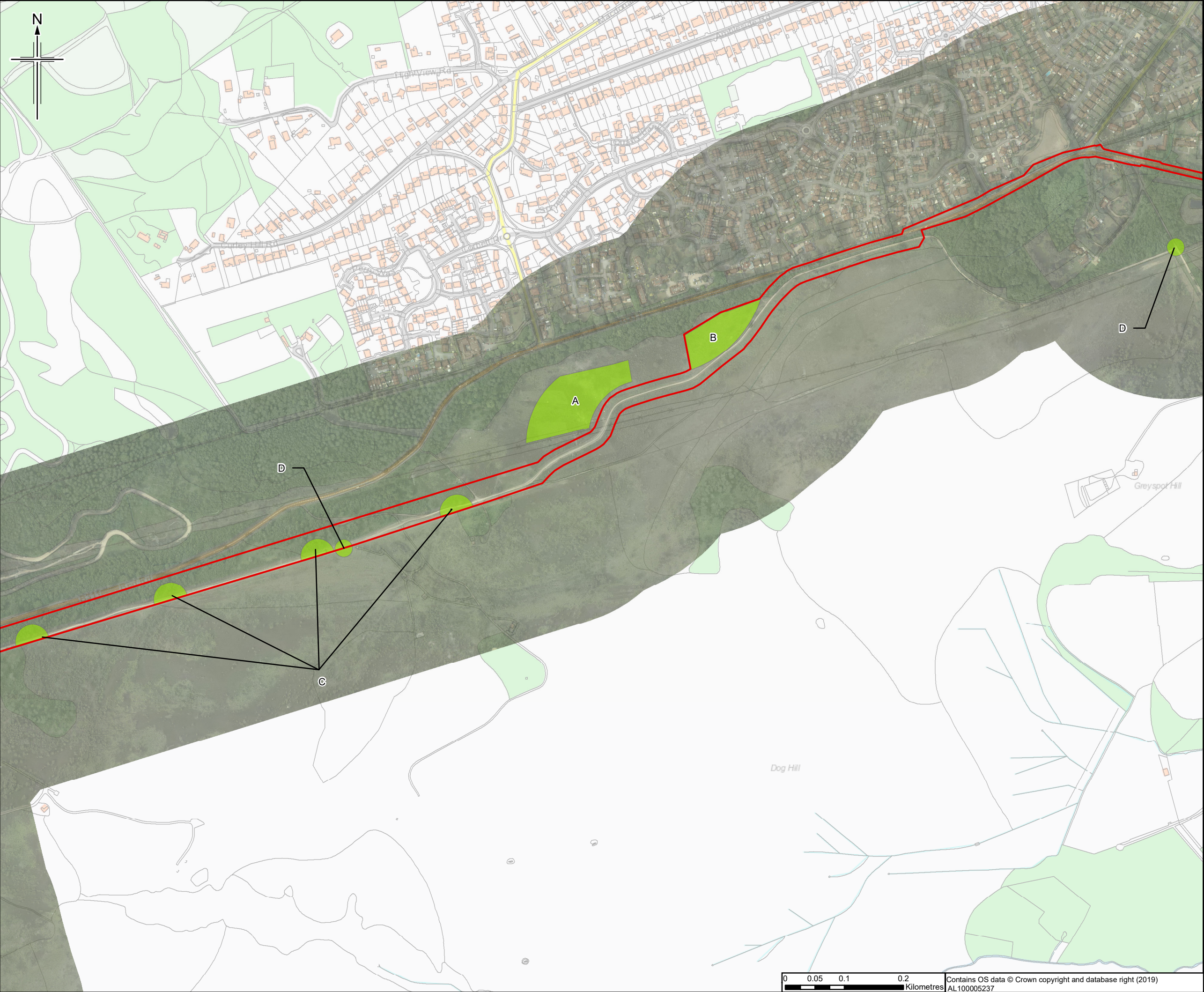
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Drawing Title  
ENVIRONMENTAL INVESTMENT PROGRAMME OF ACTIVITIES FOR COVE BROOK

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Jacobs No.	B2325300		
Figure No. B2325300-JAC-000-COE-DRG-000100		Rev 0	

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- Legend**
- Order Limits
  - Environmental Investment Programme Activity
  - Enhanced Reinstatement
- A:** Bare earth scrapes
- B:** Scrub clearance
- C:** Creation of glades
- D:** Signage and Interpretation Boards

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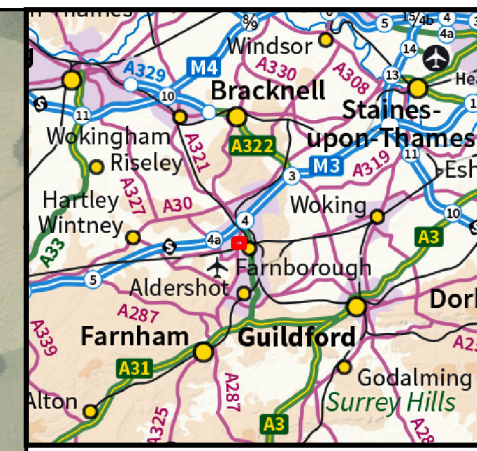
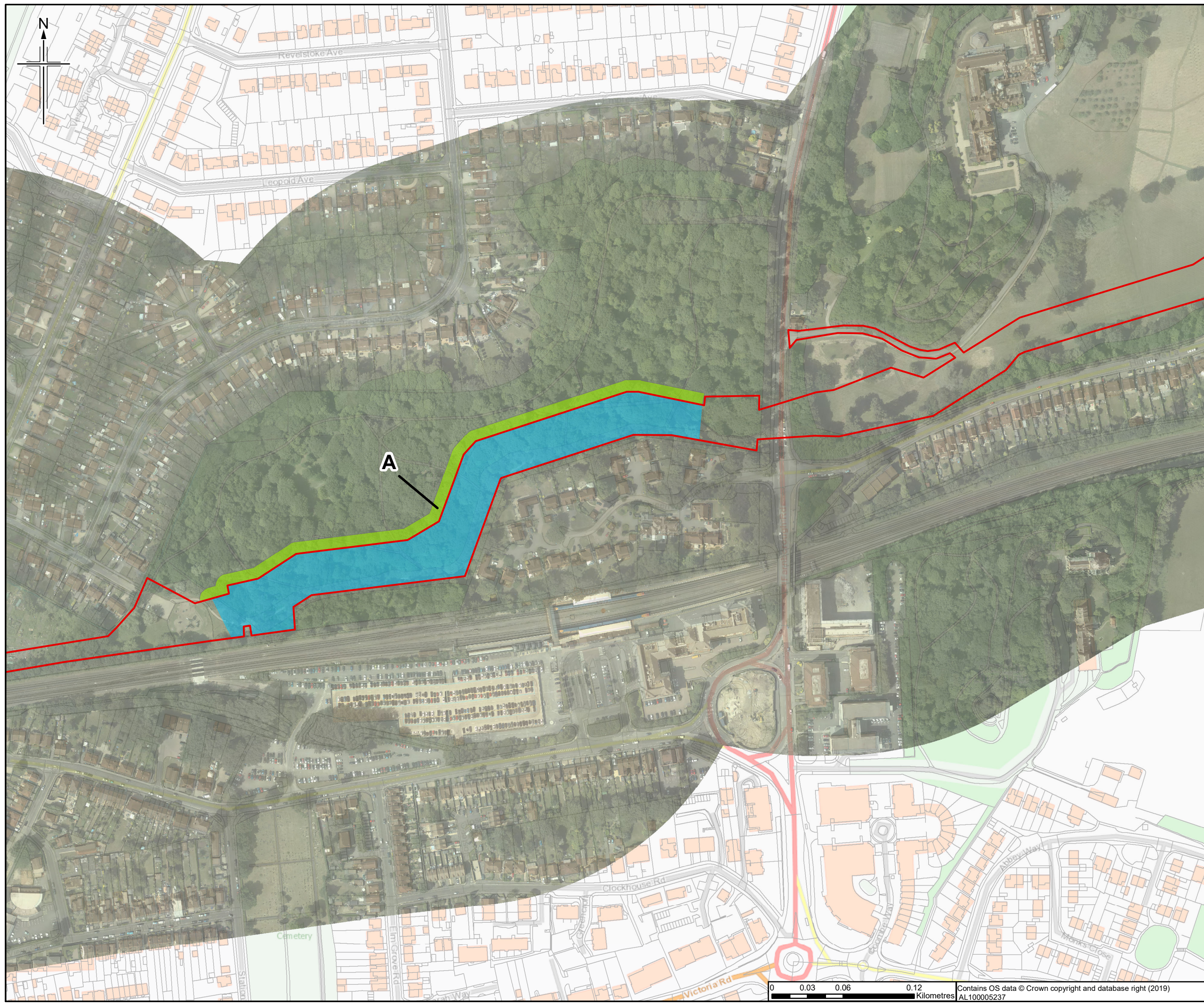
Drawing Title  
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OF ACTIVITIES FOR COLONY BOG AND BAGSHOT HEATH

Drawing Status		For Issue	
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Jacobs No.	B2325300		

Figure No. B2325300-JAC-000-CEO-DRG-000101	Rev 0
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**Legend**

- Order Limits
- Environmental Investment Programme Activity
- Enhanced Reinstatement

**A:** Localised Rhododendron control

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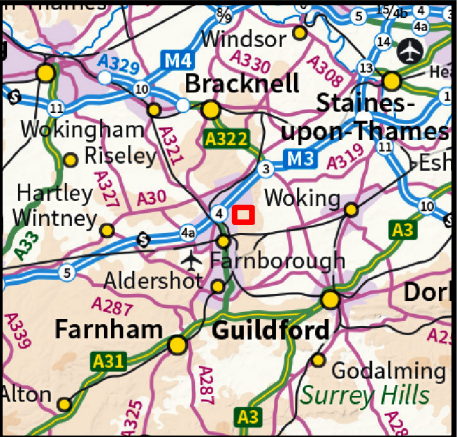
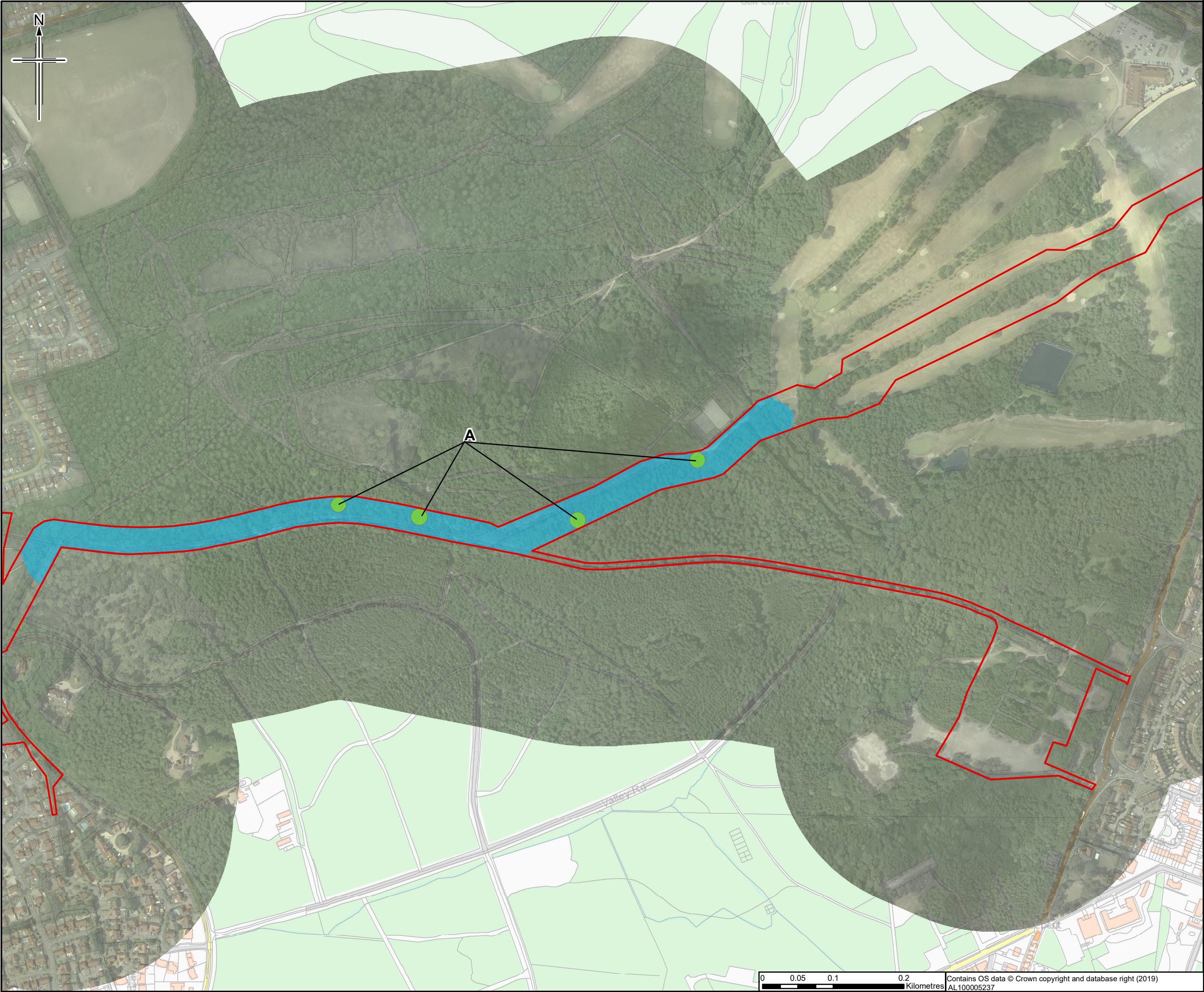
Drawing Title  
ENVIRONMENTAL INVESTMENT PROGRAMME  
OF ACTIVITIES FOR QUEEN ELIZABETH PARK

Drawing Status		For Issue	
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Jacobs No.	B2325300		

Figure No. B2325300-JAC-000-COE-DRG-000105	Rev 0
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- Legend**
- Order Limits
  - Environmental Investment Programme Activity
  - Enhanced Reinstatement
  - A: Creation of Glades

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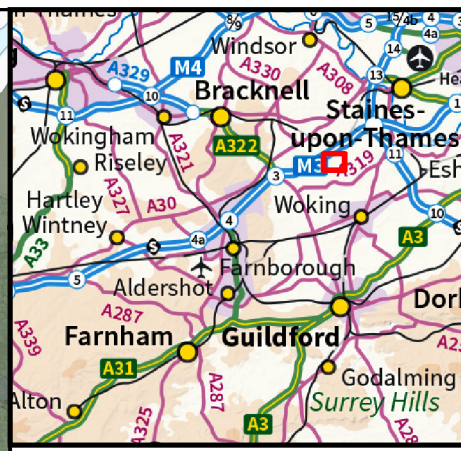
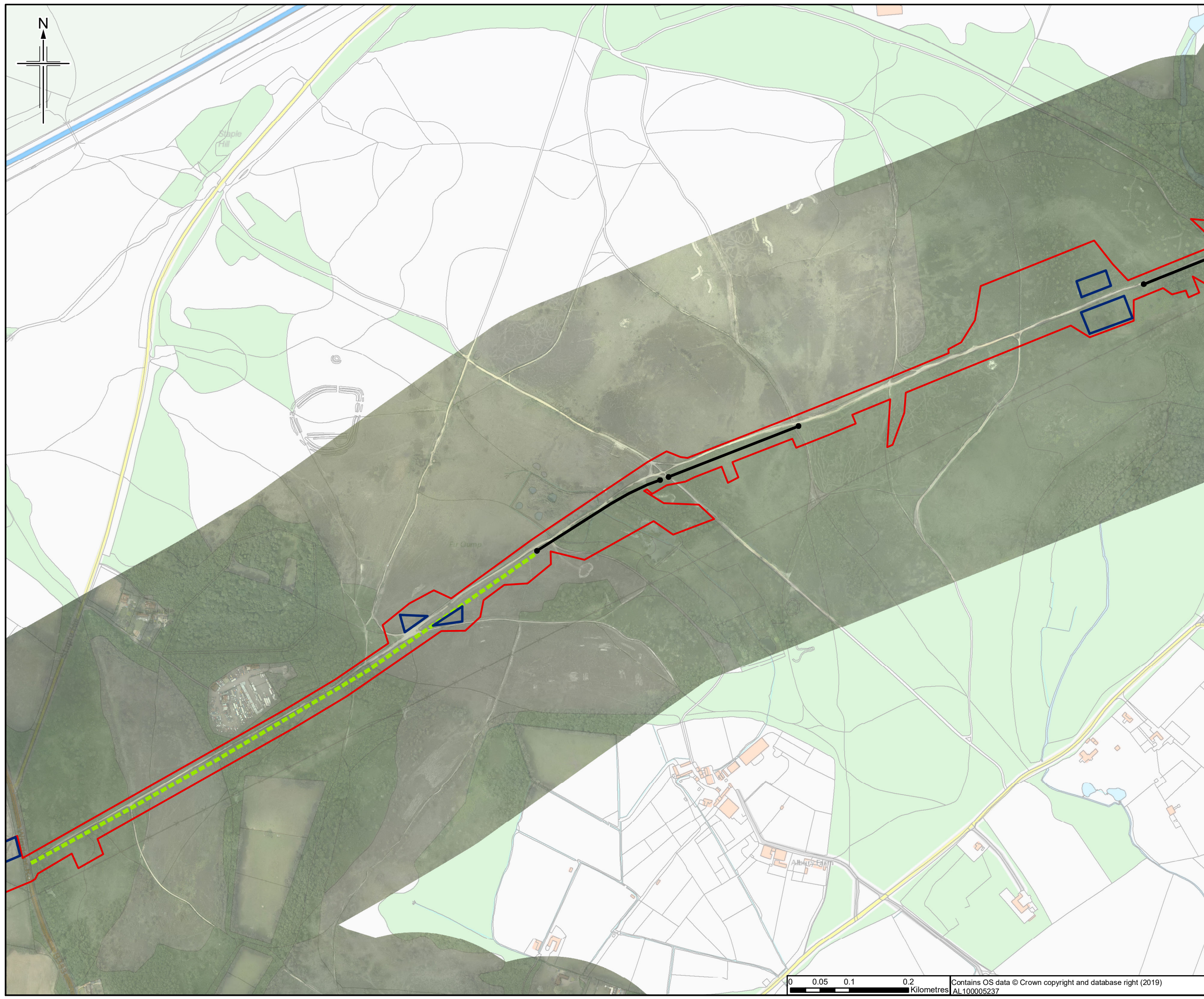
Drawing Title  
ENVIRONMENTAL INVESTMENT PROGRAMME OF ACTIVITIES FOR FRITH HILL

Drawing Status		For Issue	
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Jacobs No.	B2325300		

Figure No. B2325300-JAC-000-COE-DRG-000104	Rev 0
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- Legend**
- Order Limits
  - Construction Compounds
  - Water Pipe
  - Trenchless Crossings

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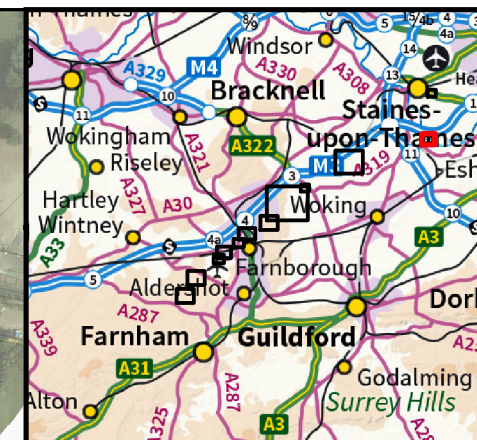
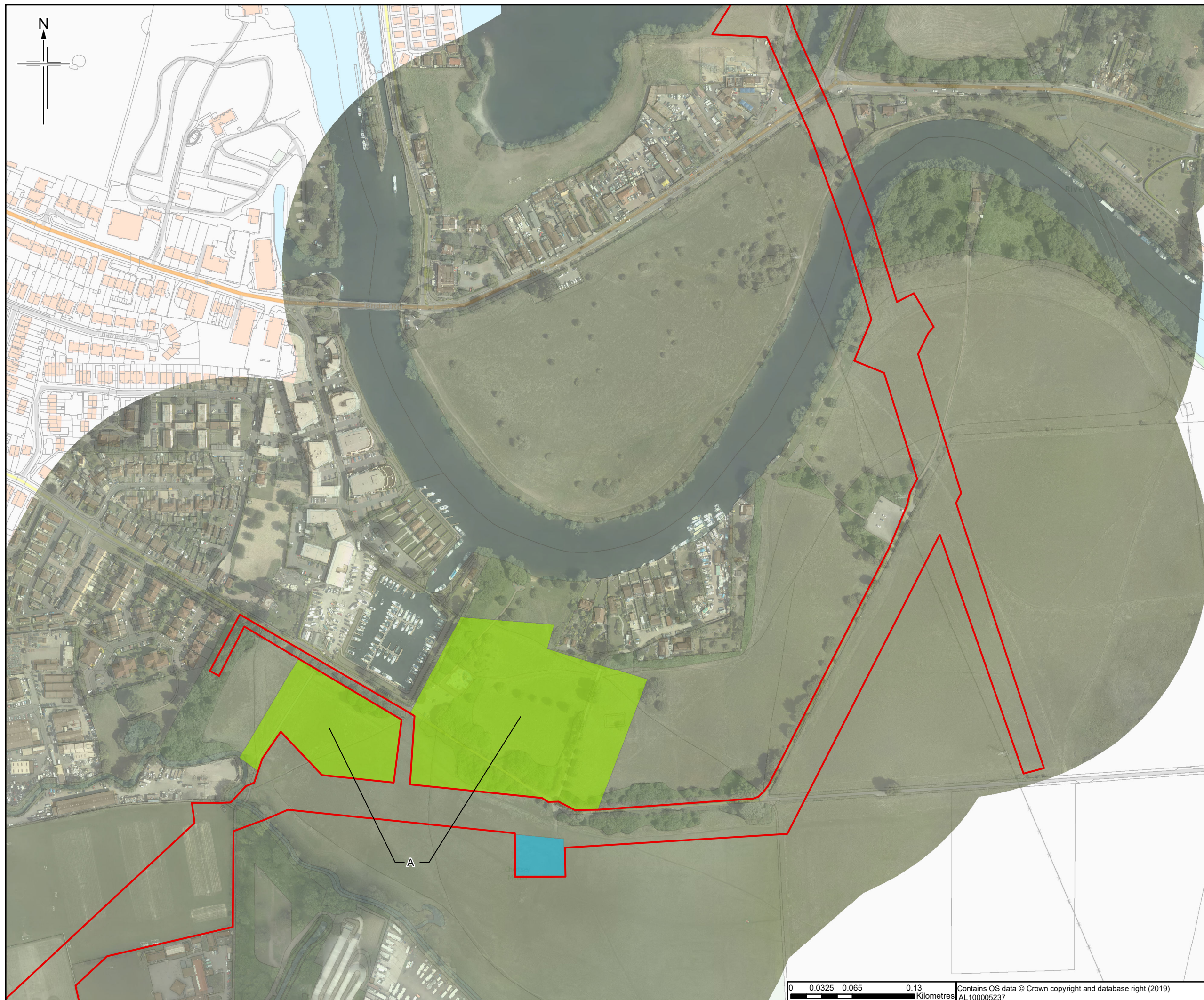
Drawing Title  
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OF ACTIVITIES FOR CHOBHAM COMMON/>>

Drawing Status		For Issue	
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Jacobs No.	B2325300		

Figure No. B2325300-JAC-000-CEO-DRG-000103	Rev 0
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- Legend**
- Order Limits
  - Enhanced Reinstatement
  - Environmental Investment Programme Activity
  - A: Fencing and Cattle Grids

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Drawing Title  
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OF ACTIVITIES FOR CHERTSEY MEADS

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