

A417 Missing Link TR010056

6.7 Environmental Statement - Updates and Errata (Rev 2)

Planning Act 2008

APFP Regulation 5(2)(a) Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

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A417 Missing Link

Development Consent Order 202[x]

Environmental Statement - Updates and Errata (Rev 2)

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1 Introduction

1.1 Purpose of this document

- 1.1.1 This document (Document Reference 6.7) has been prepared to detail updates to and errata in the Environmental Statement (ES) (Document Reference 6.2, APP-032 to APP-049) for the A417 Missing Link (hereafter referred to as 'the scheme'), which was submitted as part of the Development Consent Order (DCO) application in June 2021.
- 1.1.2 It is intended that during the Examination, further points of clarification or amendments which arise through (but not limited to) the Written Questions, Written Representations and the Issue Specific Hearings would be added to this document which would remain live throughout. It will be submitted, where appropriate, at each of the prescribed Deadlines as set out by the Planning Inspectorate.

1.2 Structure of document

- 1.2.1 Section 2 of this document provides **updates** to the ES (Document Reference 6.2, APP-032 to APP-049) which have been identified through the Examination and provides updates and amendments as appropriate. These are presented in the following tables:
 - Table 2-1 Environmental statement chapter updates Deadline 1
 - Table 2-2 Environmental statement chapter updates Deadline 2
 - Table 2-2 Environmental statement chapter update Deadline 4
- 1.2.2 Section 3 of this document provides **corrections** to address any errors or omissions updates to the ES (Document Reference 6.2, APP-032 to APP-049) which have been identified through the Examination. These are presented in the following tables:
 - Table 3-1 Environmental statement chapter errata Deadline 1
 - Table 3-2 Environmental statement chapter errata Deadline 2

2 Environmental Statement Updates

2.1.1 Table 2-1, Table 2-2 and Table 2-3 have been produced to detail any amendments, including updates, to the ES (Document Reference 6.2, APP-032 to APP-049) which have been identified through the Examination and provides updates and amendments as appropriate.

Table 2-1 Environmental statement chapter updates – Deadline 1

Document reference	Reason for amendment to the ES	Amendment to the ES
Volume 6.2 Environmental Statement Chapter 1 Introduction (APP-032)	Paragraph 1.3.16 of National Planning Policy Framework to be updated in line with the revised National Planning Policy Framework published in July 2021.	Paragraph 1.3.16 of ES Chapter 1 - Introduction is amended to: In addition, the NPPF originally published in March 2012 and most recently updated in July 2021, sets out the government's planning policies for England and provides a framework within which locally prepared plans can be produced. The NPPF is 'an important and relevant' matter to be considered in decision making for NSIPs. The NPPF is supplemented by the Planning Practice Guidance (PPG) web-based resource launched in February 2014. The PPG is updated by the Ministry of Housing, Communities and Local Government as necessary.
Volume 6.2 Environmental Statement Chapter 14 Climate (APP- 045)	Paragraph 14.3.3 to be updated for the sixth carbon budget.	Paragraph 14.3.3 of ES Chapter 14 is amended to: The Climate Change Act 2008 requires that five-yearly carbon budgets are set and not exceeded to ensure that regular progress is made towards the target. The first three carbon budgets were set in 2009, with the fourth and fifth following in 2011 and 2016 respectively, as outlined in Table 14-1. The sixth carbon budget was legislated for in June 2021.
Volume 6.2 Environmental Statement Chapter 14 Climate (APP- 045)	Paragraph 14.3.4 to be updated for the Carbon Budget Order 2021.	Paragraph 14.3.4 of ES Chapter 14 is amended to: The third, fourth and fifth carbon budgets, as set out in the Carbon Budgets Order 2009, the Carbon Budget Order 2011 and the Carbon Budget Order 2016, are based on an 80% reduction as legislated by the Climate Change Act 2008. The sixth carbon budget as set out in the Carbon Budget Order 2021, is based on the target for 100% reduction in emissions by 2050, it requires a 78% reduction in GHG emissions between 1990 and 2035. GHG emissions from the scheme are reported against the legislated carbon budgets, in line with the requirements of DMRB LA 114 and the NPSNN (Paragraph 5.17).

Document reference	Reason for amendment to the ES	Amendment to the ES					
Volume 6.2 Environmental Statement Chapter 14 Climate (APP- 045)	Table 14-1 of ES Chapter 14 Climate (Document Reference 6.2, APP- 045) to include the sixth carbon budget (2033 - 2037) and to show the reduction below 1990 levels.	Table 14-1 of ES Chapter 14 Climate (Document Reference 6.2, APP- 045) is amended to include the 6th carbon budget. Table 14-1 UK third, fourth, fifth and sixth carbon budgets (as legislated by the Climate Change Act 2008 and set out in the Carbon Budget Order 2009, the Carbon Budget Order 2011, the Carbon Budget Order 2016 and the Carbon Budget Order 2021)					
	Table 14-1 UK third, fourth and fifth carbon budgets (as legislated by the Climate	Carbon budget	Carbon budget level Million tonnes of carbon dioxide equivalents (MtCO ₂ e)	Reduction below 1990 levels			
	Change Act 2008 and set out in	Third carbon budget (2018 - 2022)	2,544 MtCO ₂ e	37% by 2023			
	the Carbon Budgets Order 2009, the Carbon Budget Order 2011	Fourth carbon budget (2023 - 2027) 1,950 MtCO ₂ e		51% by 2025			
	and the Carbon Budget Order 2016)	Fifth carbon budget (2028 - 2032)	1,725 MtCO₂e	57% by 2030			
		Sixth carbon budget (2033 - 2037)	965 MtCO2e	78% by 2035			

Document reference	Reason for amendment to the ES	Amendment to the ES
Volume 6.2 Environmental	Decarbonising transport: a better, greener Britain	14.3 Legislative and policy framework
Statement Chapter 14	for Transport (DfT) published	Add under National policy heading.
Climate (APP- 045)	Decarbonising transport: a better, greener Britain, a plan to	Decarbonising transport: a better, greener Britain
	decarbonise the entire transport system in the UK. Section 14.3 Legislative and	The decarbonisation plan sets out the Government's commitments and the actions needed to decarbonise the entire transport system in the UK. This plan considers GHG emissions produced from use of the UK's transport system and details how the UK will enhance resilience to climate change risks across road, rail, ports, and aviation, harbour authorities and road and rail organisations.
	policy framework to include new policy.	The decarbonisation plan outlines a number of commitments by the Government to remove all emissions from road transport to achieve net zero target by 2050.
		Commitments that will have a direct impact on road user emissions from the Scheme will include:
		An end to the sale of new petrol and diesel cars and vans by 2030
		All new cars and vans to zero emissions at the tailpipe by 2035
		All new L-category vehicles to be fully zero emissions at the tailpipe by 2035
		The end of the sale of all non-zero emissions HGVs by 2040
		In addition, the Government is providing support for at least 4,000 zero emission buses and has committed to holding a consultation on a date to end the sale of new non-zero emissions motorbikes.
		This plan states that major infrastructure projects outlined in the "ambitious roads programme reflects – and will continue to reflect – that in any imaginable circumstances the clear majority of longer journeys, passenger, and freight, will be made by road; and that rural, remote areas will always depend more heavily on roads." This supports the Road Investment Strategy (RIS2) which this project sits within.

Document reference	Reason for amendment to the ES	Amendment to the ES
		Amendment to the ES 14.3 Legislative and policy framework Add under National policy heading. Net zero highways: Our 2030 / 2040 / 2050 plan Net zero highways: our 2030 / 2040 / 2050 plan, responds to the Government's Decarbonising Transport: A Better, Greener Britain. The plan sets out how England's motorways and A-roads will be decarbonised, so they can continue to bring significant benefits to people and businesses in a net-zero economy. National Highways recognises that it has a key role in the development and maintenance of a strategic road network that will facilitate the journey to net zero emissions. The plan maps how the company will progress rapidly in this area, focusing on innovation and zero carbon solutions while using offset only as a very last resort. In summary:
		 By 2025: National Highways has made a Greening Government Commitment to reduce its own carbon emissions by 75% compared with the 2017/18 baseline. By 2030: National Highways will be net-zero for its own carbon emissions. This includes switching to light-emitting diode (LED) lighting, changing its vehicle fleet to electric and planting up to 3 million additional trees on its own land next to roads. By 2035: National Highways will bring together best practice and latest technologies to construct the first net-zero road scheme. By 2040: All construction and maintenance activities carried out on the strategic road network will be net-zero. By 2050: The vehicles on the strategic road network will be zero emission.

Document reference	Reason for amendment to the ES	Amendment to the ES						
Volume 6.2 Environmental Statement Chapter 14 Climate (APP- 045)	Paragraph 14.4.21 to be updated for the sixth carbon budget (2033 - 2037).	Paragraph 14.4.21 of ES Chapter 14 is updated to include the 6th carbon budget: An estimate of the likely magnitude of GHG emissions associated with the scheme has been assessed against the legislated national UK carbon budgets. The UK Government has currently passed into law carbon budgets up to 2032: • The third carbon budget period (2018 to 2022) allows the UK to emit 2,544 MtCO ₂ e. • The fourth carbon budget (2023 to 2027) allows the UK to emit 1,950 MtCO ₂ e. • The fifth carbon budget (2028 to 2032) allows the UK to emit 1,725 MtCO ₂ e. • The sixth carbon budget (2033 - 2037) allows the UK to emit 965 MtCO ₂ e.						
Volume 6.2 Environmental Statement	Table 14-18 Assessment of scheme net emissions (up to 2032) against UK Government	Table 14-18 Asses carbon budgets	sment of scheme no	et emissions (up	to 2032 2	2037) agai	nst UK G	overnment
Chapter 14 Climate (APP- 045)	carbon budgets to reflect the sixth carbon budget is now included in the assessment.	Project stage	(cumulative) GHG GHG emission over carbo	Net (cumulative) GHG emissions over carbon	ns emissions per relevant carbon budget (tCO₂e)			
			carbon budgets (tCO ₂ e) ('Do- Something' scenario)	budgets (tCO _{2e}) ('Do- Something'-'Do- Minimum')	Inira	Fourth (2023 - 2027)	Fifth (2028 - 2032)	Sixth (2033 - 2037)
		Construction (over a period of 42 months, assumed to commence in early 2023-2026)	74,144	74,144	n/a	74,144	n/a	n/a
		Operation (modelled from 2026 through to 2037)	2,373,212	152,565	n/a	22,158	61,196	69,211
		Total	2,447,356	226,709	n/a	96,302	61,196	69,211

Document reference	Reason for amendment to the ES	Amendment to the ES
Volume 6.2 Environmental Statement Chapter 14 Climate (APP- 045)	Paragraph 14.10.12 to reflect the sixth carbon budget is now included in the assessment.	Paragraph 14.10.12 If the DCO is granted, construction is expected to start in early 2023 and the scheme is expected to be open to traffic in 2026. Therefore, the construction period for the scheme falls wholly within the fourth carbon budget. Operation of the scheme would commence in 2026 and is assessed against the fourth, fifth and sixth carbon budgets, up to 2037.
Volume 6.2 Environmental Statement Chapter 14 Climate (APP- 045)	Paragraph 14.10.13 to reflect the sixth carbon budget is now included in the assessment.	Paragraph 14.10.13 Significant effects The construction and operation phases of the scheme which fall within legislated carbon budget periods are expected to have an insignificant impact on the ability of the UK Government to meet its carbon budgets. Construction of the scheme is estimated to contribute approximately 0.00380% of the fourth carbon budget. Operation of the scheme is estimated to contribute approximately 0.00114% of the fourth carbon budget 0.00355% of the fifth carbon budget and 0.00717% of the sixth carbon budget. It is considered that this magnitude of emissions from the scheme in isolation would not have a material impact on the ability of the UK Government to meet its carbon budgets, and therefore is not anticipated to give rise to a significant effect on climate, in line with the position set out within Section 5.18 of the NPSNN.

 Table 2-2
 Environmental statement chapter updates – Deadline 2

Document reference	Reason for amendment to the ES	Amendment to the ES							
Volume 6.2 Environmental Statement Chapter 5 – Air quality	Baseline Conditions - Examining Authority's Written Questions (PD-008) Question 1.2.5 "Can the monitoring results referred to in paragraph 5.4.6 of ES Chapter 5 [APP-036], in relation the PM10 and PM2.5, be published and made available to the Examination?"	Additional Air Quality Monitoring Data as submitted in Appendix B in the Response to the Examining Authority's Written Questions (ExQ1) (Document Reference 8.4, REP1-009): Table 1 Details of PM ₁₀ and PM _{2.5} local authority monitoring sites							
	Background PM10 concentrations for 2017 the baseline year are shown in Table 1-5 of Environmental Statement (ES)	Local Authority and ID	Site name		ite fication		tional g		
	Appendix 5.4 Air quality baseline data (Document Reference					X		Υ	
	6.4, APP-336).	Stroud Hardwicke	Hardwicke	Surbur	ban	3802	03 21	2842	
	No further particulate monitoring (PM10 or PM2.5) was	Stroud Haresfield	Haresfield	Rural		3813	24 21	0015	
	included in the ES as the assessment of PM10 and PM2.5 was scoped out at the scoping stage as the total concentrations in the study area are well below the relevant air quality objectives. However, further monitoring results have been	Table 2 Local authority monitoring results for PM					M ₁₀		
	submitted as Appendix B in the Response to the Examining	and ID		2015	2016	2017	2018	2019	
	Authority's Written Questions (ExQ1) (Document Reference	Stroud Hardwicke	Hardwicke	N/A	N/A	N/A	9.9	10.1	
	8.4, REP1-009).	Stroud Haresfield	Haresfield	N/A	N/A	N/A	9.9	8.6	
		Table 3 Local authority monitoring results for PM _{2.5}							
			Site name	National grid references					
		and ID		2015	2016	2017	2018	2019	
		Stroud Hardwicke	Hardwicke	N/A	N/A	N/A	7.1	6.4	
		Stroud Haresfield	Haresfield	N/A	N/A	N/A	7.1	5.8	

Document reference	Reason for amendment to the ES	Amendment to the ES				
Volume 6.2 Environmental		Table 4 Predicted PM _{2.5} background pol	llutant c	oncen	trations for	
Statement Chapter 5 – Air quality		Local Authority (μg/m³)		an PM _{2.5} ration		
quanty			Max	Min	Average	
		Cheltenham Borough Council	10.3	8.0	9.2	
		Cotswold District Council	10.4	7.7	8.4	
		Gloucester City Council	11.1	8.4	9.8	
		South Gloucestershire District Council	10.9	7.4	8.2	
		Stroud District Council	10.6	7.5	8.3	
		Swindon Borough Council	11.3	8.4	9.4	
		Tewkesbury Borough Council	10.7	7.9	8.6	
		West Berkshire Council	11.5	8.3	9.2	
		West Oxfordshire District Council	11.1	8.2	9.1	
		Wilshire Council	11.4	7.6	8.4	
Volume 6.2 Environmental	Additional paragraph under Section 5.11 Monitoring required to reflect the need for operational monitoring of Ullen	New Paragraph 5.11.3 added for ES Characteristics and the second	-		-	
Statement Wood Ancient Woodland and Veteran Trees (VT VT13, VT21, VT43 and VT98), in response to the Joint Council's Statement quality (APP-036) of Common Ground (see Statement of Commonality Appendix		determine emissions during operation of the impact on Ullen Wood Ancient Woodland	ne scher and vete rst full ye	ne and ran tre ear of c	confirm the es. Monitoring peration. Shoul	

Document reference	Reason for amendment to the ES	Amendment to the ES		
Volume 6.2 Environmental	Questions (PD-008) Question 1.1.12:	Table 18-1	of ES Chapter 18 Glossary is amended to:	
Statement Chapter 18	3		Glossary Table	
Glossary (APP- 049)	same in all instances where it appears (for example paragraph 6.2.81 of the Case for the Scheme)?"	Glossary term	Description	
		At grade	Any element of the scheme, for example roads, crossings or footpaths, that are at the same level as each other.	
	(ExQ1) (Document Reference 8.4, REP1-009).			

 Table 2-3
 Environmental statement chapter update – Deadline 4

Document reference	Reason for amendment to the ES		Amendment	t to the ES
Volume 6.2	Table 2-2 updated to include an	Table 2-2 Lateral LoD		
Statement Chapter 2 The	additional restriction (<i>0m between</i> points S and T on sheet 1 of the Works Plans) to the lateral Limit of Deviation to ensure that the earthworks footprint will remain	Work No. (Refer to Works Plans (Document reference 2.4))	Description	Lateral LoD
	outside on the existing Flyup car park.			1.0m between points A and B on sheet 1 of the Works Plans
			A417 mainline	0m between points C and D on sheet 1 of the Works Plans
			A417 mamme	0m between points S and T on sheet 1 of the Works Plans
				0m between points G and H on sheet 2 of the Works Plans
		1k	Cold Slad Lane	5.3m between points E and F on sheet 2 of the Works Plans
		5	Gloucestershire Way crossing	1.0m between points I and J on sheet 2 of the Works Plans
				0m between points K and L on sheet 3 of the Works Plans
		6	B4070	1.0m between points M and N on sheet 3 of the Works Plans
				0m between points O and P on sheet 3 of the Works Plans
		10	Cowley junction	0m between points Q and R on sheet 6 of the Works Plans

3 Environmental Statement Errata

3.1.1 Table 3-1 Environmental statement chapter errata – Deadline 1 and Table 3-2 Environmental statement chapter errata – Deadline 2 have been produced to detail any errors or omissions within the ES which have been identified through the Examination and provides corrections as appropriate.

Table 3-1 Environmental statement chapter errata – Deadline 1

Document reference	Reason for amendment to the ES				An	nendment to the	ES						
Volume 6.2 Environmental Statement Chapter 2 – The Project (APP-033)	ecological and heritage assets, and	Based on the curre change, such as s in ES Chapter 4 E changes to road d	ragraph 2.5.10 of ES Chapter 2 – The Project is amended to: sed on the current land use, the future baseline in the absence of the scheme is unlikely to change significantly by 2041. Subtle changes are expected due to climate ange, such as some movements of certain species and local population changes; however, the overall habitats and species composition in the study area (as defined ES Chapter 4 Environmental Assessment Methodology (Document Reference 6.2)) are expected to be broadly similar to that of the existing baseline. Potential anges to road drainage and water environment receptors in the future would not be noticeable, as discussed in Chapter 13 Road Drainage and the Water vironment (Document Reference 6.2) Therefore, the future baseline would remain the same as set out in the existing baseline.										
Volume 6.2 Environmental Statement Chapter 5 Air Quality (APP-APP-036)	Paragraph 5.10.30 erroneously reports that Receptor 17 has the largest increase in concentration as 0.6 ug/m³, instead of 0.9 ug/m³.	Receptors 17, 19	proph 5.10.30 of ES Chapter 5 is amended to: otors 17, 19 and 22 are located in the Cheltenham AQMA. Receptor 17 has the largest increase in concentration (0.9 μg/m³) as a result of the scheme. The highest concentration due to the scheme in the Cheltenham AQMA is at receptor 22 (31.6μg/m³). There are no modelled exceedances in the Cheltenham AQMA.										
Volume 6.2 Environmental Statement Chapter 5 Air Quality (APP-APP-036)		In this discussion rauthority monitorin 61µg/m3 was recorded the road. There are risk of exceedance	ragraph 5.10.24 of ES Chapter 5 is amended to: this discussion region nine receptors (see Table 5-6) have been selected to represent the scale of impacts associated with the scheme. Scheme-specific and local chority monitoring showed that roadside concentrations of annual mean NO2 in the Birdlip AQMA were above the AQO. A maximum monitored concentration of ug/m3 was recorded at the roadside of the Air Balloon roundabout. It is not representative of receptor exposure in this location as properties are set back further from road. There are no predicted exceedances of the NO2 annual mean objective in the baseline scenario at any of the receptor locations. There are two receptors at of exceedance at the Air Balloon Cottages (receptors 50 and 51). Receptor 71 shows a high rate of change (2.7 ug/m3). Although the annual mean NO2 ncentrations still remain below the relevant air quality threshold and therefore there is no likely significant effect in accordance with DMRB LA105.										
Volume 6.2 Environmental Statement Chapter 5 Air Quality (APP-APP-036)	Table 5-6 NO ₂ concentrations at selected receptors – discussion region 1 Omission of Receptor 71 from	_	ncentrations at s	- discussion region	1								
	Table 5-6.	Receptor	X X	Reference (m)	Figure sheet reference	2016 Base			Change (DS-DM) (μg/m3)	AADT change			
		46	394545	213635	20	25.7	22.9	12.6	-10.4	-16,448			
		50	393450	216124	9	43.2	39.9	23.6	-16.4	8,286			
		51	393457	216129	9	42.7	39.1	22.8	-16.3	8,286			
		53	393752	215136	9	10.7	8.6	9.5	0.8	2,235			
		55	393391	215756	9	23.1	19.5	13.6	-5.9	-14,681			
		71	393869	215412	9	10.7	8.6	11.3	2.7	45,149			
		73	394208	215344	9	10.1	8.2	10.2	2.0	43,054			
		96	392879	215807	9	25.3	22.8	22.4	-0.4	8,286			
		99	392968	215759	9	17.7	15.3	17.2	1.9	8,286			
Volume 6.2 Environmental Statement Chapter 6 – Cultural Heritage (APP- 037)	erroneous distance of 70m between	Paragraph 6.7.2 of One designated rebarrows, known co	source lies within	the DCO Boundary	/, but outside of the f 017079). This resou	ootprint of the so	heme. This sc proximately 50	heduled monu om to the south	ment consists of a grou of the scheme at its clo	o of three round sest point.			

Document reference	Reason for amendment to the ES				Amendment to	the ES							
Volume 6.2	Table 6-6 Scheduled monuments			•									
Environmental Statement Chapter 6 –	(high value)	Table 6-6 Sch	eduled monum	nents (high value	2)								
Cultural Heritage (APP-037)	Table 6-6 states an erroneous distance of 80m between the proposed scheme and Emma's	NHLE No.	Name	Distance from scheme	Setting	l	Nature of impact	Magnitude of impact	Significance of effect				
Volume 6.2	Grove. This should be 50m.	1017079	Three bowl barrows, known as Emma's Grove barrows The barrows are located immediately to the east of the 'Air Balloon' roundabout and are hidden within a small copse. The wider setting of the barrows comprises an undulating rural landscape, featuring a mixture of historic and modern fields, boundaries, tracks and woodlands. The topography is such that long distance views are rare and this sense of hiddenness and discovery as an observer moves through the landscape, encountering other contemporary prehistoric monuments as they appear in view, is a key aspect of setting that adds to its significance. This 'mind visibility' is likely to have been important to the builders of the barrow, and therefore the significance of the barrow is sensitive to changes to the landform within this setting, regardless of whether these changes are visible. The sating approximately 50m to the north of these barrows, although alter the immediate setting of the barrows, although this would be armows, and thore or dispitly by the removal of the Existing A417 immediately to the west. The scheme would alter the immediate setting of the barrows, although this would be armows, and therefore the some would alter the immediate setting of the barrows, although this would be armows, although the landscape, the through the parsons, although the landscape, the										
Volume 6.2 Environmental Statement Chapter 8 Biodiversity (APP-039) Volume 6.2		The text refers to a specific area only (the main area of woodland loss). Paragraph 8.9.32 of ES Chapter 8 is amended to: Approximately 7.5ha of new broadleaved woodland species of native variety characteristic of existing woodland would be planted along the southern verge of the new A417 from Brockworth to the Crickley Hill area to replace woodland lost during construction and to ensure continuity of woodland habitat along this section of the scheme for the benefit of bat species. Mixed broadleaved woodland and a buffer of scrub species of approximately 5ha in area would also be planted round the bord of a field to the south of Ullen Wood. This would provide a woodland edge buffer for the ancient woodland. Similarly, additional trees and scrub would be planted on the eastern and northern edge of Emma's Grove to create a tiered buffer of vegetation including hazel scrub and small trees. Row 1 of Table 8-6 is amended as follows.											
Environmental	survey methods used for each			survey methods	to the scheme								
Statement Chapter 8 Biodiversity (APP-039)	type of biodiversity resource relevant to the scheme Table 8-6 should clarify what time	Biodiversity survey	Field survey methods		Dates of survey		Reference/ Appendix						
	of year the Extended Phase 1 Habitat survey was undertaken.	Extended Phase 1 habitat survey	Habitats within the study area were mapped, and potential for protected and notable species established following the standard JNCC methodology ²³ .	May and June 2017, a	nd localised updates in various summer months in 201	9, 2020 and 2021.	ES Appendix 8.1 (Document Reference 6.4), and the 2017 Preliminary Ecological Appraisal report ²⁴ .						
Volume 6.2 Environmental Statement Chapter 9 – Geology and Soils (APP- 040)	significance of effect on surface water is reported as 'neutral and	Paragraph 9.10.25 of ES Chapter 9 is amended to: Although the Tier 2: GQRA have identified localised areas where elevated contamination levels may pose a risk to the controlled water receptors during construction, application of essential mitigation no significant effects on controlled waters during construction have been identified. Therefore, overall the effect of the scheme on ris from contamination on groundwater during construction is assessed as neutral and slight adverse and not significant. For surface water this is assessed as permanen slight adverse and not significant.											

Document reference	Reason for amendment to the ES				Amendi	ment to the ES								
Volume 6.2	Table 9-9 Summary of effects	Table 9-9 of ES Chapter 9) is amended a	s follows.										
Environmental	during construction	Table 9-9 Summary of e												
Statement Chapter 9 – Geology and Soils (APP- 040)	Table 9-9 contains an error where the receptor sensitivity of the Tributary of Norman's Brook was	Potential impact	Receptor	Description	Receptor sensitivity	Desig	ın and mitigation m	easures	Magnitude of impact	Residual significance of effect				
	reported as 'medium', when it should have been reported as 'high'. Table 9-9 contains an error where the residual significance of effect was reported as 'neutral' for the Tributary of Horsbere Brook, Tributary of Norman's Brook and the Tributary of River Churn, when it should have been reported as 'slight adverse'.	Contaminated soil, leachate/ groundwater/ direct discharge	Groundwater	Inferior Oolite and Great Oolite - Principal Aquifers	High	available information o	n potential sources ir	er 2: GQRA, informed by ncluding desk study, and	Negligible	Slight adverse				
		and pollution of aquifers		Superficial deposits - Secondary A aquifer	Medium	ground investigations (and groundwater chem concern have been ide	nical testing) have be	en completed. Areas of	Negligible	Neutral				
		Contaminated soil leachate/		Lias Group - Secondary (undifferentiated) aquifer	Low	and site specific asses required. This would be	sments, remediation	measures may be	Negligible	Neutral				
			Surface water	Tributary of Horsbere Brook	Medium	EMP (ES Appendix 2.1 appropriate hazardous response and environn	controlled through measures set out in the 1 EMP (Document Reference 6.4)) including materials storage and handling, pollution mental management, materials management and unexpected contamination. Pollution		Negligible	Slight adverse				
				Tributary of Norman's Brook	High	control systems would through the risk assess The drainage design w	be targeting areas of sments.	f concern identified the risk of discharging	Negligible	Slight adverse				
				River Frome and its tributaries	High	pollutants into the aqui surface water runoff at design are reported in Reference 6.4).	its source. Further d	etails on the drainage	Negligible	Slight adverse				
				Tributary of River Churn	1.4 1:	Materials reused within the scheme in accordance with EMP and associated MMP (ES Appendix 2.1 Environmental Management			N. 11 11	01: 14 1				
					Medium	Plan (Document Refere	erence 6.4)) and therefore only materials i.e. those that would not pose an unacceptable		Negligible	Slight adverse				
						FWRA to be completed for individual structures where deep foundations or ground improvement works are proposed, to be confirmed subject to the design at detailed design stage.								
Volume 6.2	Table 9-10 Summary of effects	Table 9-10 of ES Chapter 9 is amended as follows.												
Environmental	during operation	Table 9-10 of ES Chapter 9 is amended as follows. Table 9-10 Summary of effects during operation												
Statement Chapter 9 – Geology and Soils (APP- 040)	Table 9-10 erroneously omitted "Superficial deposits – Secondary A aquifer" and "Lias Group –	Potential impact	Rece	_	Description		eceptor Design and Magnitude nsitivity Mitigation measures		ct Residual sig					
	Secondary (undifferentiated	Exposure to soil contamination	On-site use	ers Maintenance workers		Medium	N/A	Negligible	Slight beneficial					
	aquifer)" as groundwater receptors			Highway users		Low		No change	Neutral					
	during the operational phase of the		Off-site use	ers Residents of nearby prop	perties	Very High		No change	Neutral					
	scheme.			WCH (Public open space	e users)	High		Negligible	Slight beneficial					
	Table 9-10 contains an error where the receptor sensitivity of the	Leaching and migration of contar due to rainwater infiltration from s	soils	er Inferior Oolite and Great Aquifer	Oolite – Principal	High	N/A	Negligible	Slight adverse					
	Tributary of Norman's Brook was	used in construction to groundwa and lateral migration to surface w		Superficial deposits – Se	econdary A aquifer	Medium		Negligible	Slight adverse					
	reported as 'medium', when it should have been reported as	areas of landscaping Surface run-off to surface water i	n	Lias Group – Secondary aquifer)		Low		Negligible	Neutral					
	'high'.	areas of landscaping from soils u	sed in Surface wa	-		Medium	_	Negligible	Slight adverse					
	Table 9-10 contains an error where the residual significance of effect			Tributary of Norman's Br		Medium	4	Negligible	Slight adverse					
	was reported as 'neutral' for the			River Frome and its tribu		High	4	Negligible	Slight adverse					
	Tributary of Horsbere Brook,			Tributary of River Churn		Medium		Negligible	Slight adverse					
	Tributary of Norman's Brook and the Tributary of River Churn, when it should have been reported as 'slight adverse'.													

Document reference	Reason for amendment to the ES	Amendment to the ES
Volume 6.2 Environmental Statement Chapter 13 Road Drainage and the Water Environment (APP-044)	Paragraphs 13.5.7 omitted to include the nine months of surface water quality and flow data, between August 2020 and April 2021.	Paragraphs 13.5.7 of ES Chapter 13 is amended to: The findings presented in this chapter are based upon the data available at the time of writing including data collected to end of October 2020 for groundwater and December 2020 for surface water and springs and nine months of surface water quality and flow data, between August 2020 and April 2021 Any data collected following these dates would be used to refine the conceptual models to support the detailed design phase and would form part of the ongoing dialogue with the EA and others.
Volume 6.2 Environmental Statement Chapter 13 Road Drainage and the Water Environment (APP-044)	Paragraph 13.5.13 requires revision to provide clarity that the determination of groundwater conditions across the scheme is with exception of two areas, Ch.0+000 to CH. 0+500 and CH.2+100 to 2+600.	Paragraph 13.5.13 of ES Chapter 13 is amended to: The intrusive ground investigations field work to determine the site-specific ground conditions across the majority of the scheme have now been completed and groundwater monitoring is currently ongoing, due for completion by end of June 2021. These are described in section 13.7 Baseline conditions. Groundwater monitoring was not completed in two sections of the scheme alignment: Ch.0+000 to CH. 0+500 and CH.2+100 to 2+600. Ch. 0+000 to Ch. 0+500 was not monitored as the scheme does not require significant excavations in this section (see para 13.5.14 for further details) Ch. 2+100 to 2+600 was not monitored due to no land access granted at the time of the field works. Ground investigations commenced in February 2021 and were completed in March 2021. Subsequent groundwater monitoring will continue until March 2022. Information obtained from these investigations will be considered at detailed design. Based on the hydrogeological conceptual model derived for the scheme informed by groundwater monitoring data obtained from scheme sections located on either end of the non-investigated section, the scheme would not intercept groundwater as the groundwater table is at least 30m below the scheme. Therefore, the available information on groundwater levels is considered sufficient to inform the assessments.
Volume 6.2 Environmental Statement Chapter 13 Road Drainage and the Water Environment (APP-044)	Paragraph 13.10.14 requires clarity as to the reason behind reporting the sensitivity of Tributary of Norman's Brook as 'high', instead of 'medium' value, even though it is not designated as a WFD catchment.	Paragraph 13.10.14 of ES Chapter 13 is amended to: With the sensitivity of the receptor being high, and magnitude of impacts of negligible, the effect would be slight adverse and not significant. A precautionary approach has been taken, assigning the watercourse a value of high based on the potential for species protected under legislation.

 Table 3-2
 Environmental statement chapter errata – Deadline 2

Document reference	Reason for amendment to the ES	Amendment to the ES
Volume 6.2 Environmental Statement Chapter 5 – Air quality (APP-036)	Paragraph 5.1.1 Paragraph 5.1.1 under Section 5.11 Monitoring should be labelled correctly as 5.11.2.	Paragraph 5.1.1 of ES Chapter 5 – Air Quality is amended to: Paragraph 5.1.2.
Volume 6.2 Environmental Statement Chapter 6 – Cultural heritage (APP- 037)	Paleoenvironmental Deposits- Examining Authority's Written Questions (PD-008) Question 1.7.8: "In paragraph 6.8.7 of ES Chapter 6 [APP-037] there is reference to paleoenvironmental deposits being affected by hydrological changes. There are however no further references to this within the context of this ES Chapter (other than a brief mention at 6.10.17 discounting any effect). Why is this considered sufficient consideration of the matter and please explain any effects?" The reference to impacts to paleoenvironmental deposits in Chapter 6 Cultural heritage -paragraph 6.8.7 is erroneous, as	Paragraph 6.8.7 of ES Chapter 6 – Cultural Heritage is amended to: Construction of the scheme has the potential for adverse impacts upon cultural heritage resources, including: • partial or total removal of heritage resources, including archaeological • remains, within the scheme footprint • compaction of archaeological deposits by construction traffic and structures • temporary impacts upon the settings of heritage resources • permanent impacts upon the setting of heritage resources • changes to key views and sight lines
Valuras C 2	confirmed within the Response to the Examining Authority's Written Questions (ExQ1) (Document Reference 8.4, REP1-009). Site missing from Archaeological Assessment - Womble	Powerwant C 40 40 of EC Chanton C Cultival haritana is amonded to
Volume 6.2 Environmental Statement Chapter 6 – Cultural heritage (APP- 037)	Bond Dickinson (UK) LLP on behalf of Historic England, Responses to Examining Authority's Written Questions (REP1-139) Question 1.7.9: "Sites missing from the Archaeological Assessment (Appendix 6.2) include: 253 Iron Age Enclosure, linear and pits (GHER 4698)"	Paragraph 6.10.12 of ES Chapter 6 – Cultural heritage is amended to: The following non-designated resources that lie within or partially within the DCO Boundary coincide with features confirmed and investigated by geophysical survey and trial trenching. These are therefore considered as a component of buried archaeological remains, below. • 21- ridge and furrow • 116 - elongated mound (possible barrow) • 120 - linear earthwork bank • 132 – cropmark of late prehistoric and Roman trackways
	The Iron Age Enclosure was erroneously omitted from paragraph 6.10.12 of ES Chapter 6 – Cultural Heritage (APP-037). The Iron Age Enclosure was assessed in ES Appendix 6.2 Archaeological Assessment (Document Reference 6.4, APP-341)	 132 – Cropmark of fate prefistoric and Roman trackways 175 – rectilinear cropmark 246 – ridge and furrow, circular enclosure and trackways 248 – cropmarks south west of Harding's Barn, Cowley 253 - Iron Age Enclosure, linear and pits

Document reference	Reason for amendment to the ES				Amendme	ent to the ES						
Volume 6.2 Environmental Statement Chapter 6 – Cultural heritage (APP- 037)	Non-Designated Heritage Assets – Womble Bond Dickinson (UK) LLP on behalf of Historic England, Responses to Examining Authority's Written Questions (REP1-139) Question 1.7.10:	Paragraph 6.10.7										
,	"The numbers in the ES appear to be incorrect as there are only 11 sites listed in Table 6-8 not 18."	Table 6-8 Perman	ent direct impacts	s on non-designa	ated resources wit	hin DCO Bounda	ary					
	"The Plans in ES 2.12 Heritage Designation Plans is to a legible scale and the heritage resources are clearly marked and	Archaeological Assessment Ref no.	Description	Period	Туре	Value	Nature of impact	Magnitude of impact	Significance of effect			
	they are numbered. Although 36 resources are identified in Chapter 6 there are 37 resource marked within the DCO boundary on the plans. It is unclear where or what the other 79 resources are that are said to be within the DCO boundary."	22451/5815	Prehistoric enclosure north east of Emma's Grove	Iron Age	Buried archaeological remains	Medium	The resource would be removed entirely by construction activities within	Major adverse	Slight adverse due to the total loss of a low value resource,			
	"Table 6-8 also does not include Cowley Roman Settlement (GHER 5758) or a Prehistoric enclosure north east of Emma's Grove (GHER 22451/ 3815) These were omitted from the						the DCO Boundary.		mitigated by preservation by record.			
	Archaeological Assessment and previous versions of the PEIR. During pre-application consultation Historic England raised both sites as being potentially important. This omission was identified by us in our response to the PEIR consultations on 8 November 2019 and 12 November 2020 and also through discussions and e-mail correspondence. Cowley Roman site is mentioned in the ES Chapter at 6.10.14 bullet point 3, but this is a brief summary of the evaluation and not an assessment of its significance"											
	The references to 11 and 18 resources in Chapter 6 Cultural Heritage paragraph 6.10.7 and Table 6-8 are erroneous. Both instances should state 12 resources, as Prehistoric enclosure north east of Emma's Grove was erroneously omitted.											
Volume 6.2 Environmental Statement Chapter 6 – Cultural heritage (APP- 037)	Heritage Resources – Womble Bond Dickinson (UK) LLP on behalf of Historic England, Responses to Examining Authority's Written Questions (REP1-139) Question 1.7.10: "At 6.7.10 the ES Chapter 6 states there are 116 heritage resources within the DCO boundary. These 116 sites are not identified anywhere in the Chapter or its appendices."	Paragraph 6.7.10 255 non-designate these, 27 are sites spots recorded by	ed heritage resou s recorded in the	rces are present Gloucestershire	t within the study a	rea, of which 116	6 lie within the DC0 3), and the others r	D Boundary for the	e scheme. Of al artefact find-			
	The reference to 116 heritage resources is erroneous. This should state 36.											
Volume 6.2 Environmental Statement Chapter 6 – Cultural heritage (APP- 037)	Mis-graded Asset – Womble Bond Dickinson (UK) LLP on behalf of Historic England, Responses to Examining Authority's Written Questions (REP1-139) Question 1.7.10: "Peak Camp (GHER 4754), although mentioned within Chapter 6, it is missed off the mapping (ES 2.12 Heritage Designations Plans). At 6.10.9 it is stated to be a resource of Medium value. The site as a Neolithic settlement is reckoned due to its rarity to be of national importance and schedulable (Paragraph 4.1 Scheduling Selection Guide Settlements to 1500, Historic England 2018). Because of this it is of high value"	Paragraph 6.10.9 of ES Chapter 6 – Cultural Heritage is amended to: Although it is not scheduled, Peak Camp (45), is considered to be a resource of high value. Though currently wooded, Peak Carl located to take advantage of views to the west from the escarpment, and towards a contemporary prehistoric enclosure on Crick These views today contain modern infrastructure including the A417, M5 and other modern development that forms the urban currently wooded, Peak Carl located to take advantage of views to the west from the escarpment, and towards a contemporary prehistoric enclosure on Crick These views today contain modern infrastructure including the A417, M5 and other modern development that forms the urban currently wooded, Peak Carl located to take advantage of views to the west from the escarpment, and towards a contemporary prehistoric enclosure on Crick These views today contain modern infrastructure including the A417, M5 and other modern development that forms the urban currently wooded, Peak Carl located to take advantage of views to the west from the escarpment, and towards a contemporary prehistoric enclosure on Crick These views today contain modern infrastructure including the A417, M5 and other modern development that forms the urban currently wooded, Peak Carl located to take advantage of views to the west from the escarpment, and towards a contemporary prehistoric enclosure on Crick These views today contain modern infrastructure including the A417, M5 and other modern development that forms the urban currently in the contemporary prehistoric enclosure on Crick These views today contain modern infrastructure including the A417, M5 and other modern development that forms the urban currently in the contemporary prehistoric enclosure on Crick These views today contain modern infrastructure including the A417, M5 and other modern development that the urban currently in the urban current										
	Peak Camp is agreed to be upgraded to 'high' value. This change does not change the assessment outcomes in ES Chapter 6 Cultural Heritage.											

Document reference	Reason for amendment to the ES			Amendme	ent to the ES
Volume 6.2 Environmental	Scope of the ES- Examining Authority's Written Questions (PD-008) Question 1.8.5:	Table 7-12 of ES Chapter 7 Table 7-12 Visual receptor			
Statement Chapter 7 Landscape and visual	• "For the Community of Birdlip, Table 7-12 notes that "Pr-038") • "For the Community of Birdlip, Table 7-12 notes that "Parts of the community may experience direct views,	Receptor	Representative viewpoint number	Receptor scoped in/out	Reason
	Community of Birdlip	VP39	Scoped out	The community of Birdlip are unlikely to experience large changes which may appear dominant or form a noticeable feature in views or their visual resource from this distance and as a result of intervening vegetation and landform. The visual amenity for the Community of Birdlip was assessed. The assessment determined that there would be no significant visual effects during construction or operation for the Community of Birdlip. The content of the visual assessment has been moved to ES Appendix 7.5 Visual Assessment Tables (Document Reference 6.4).	
	 assessment in order to consider mitigation measures? For the community of Cold Slad, Table 7-12 indicates that this is to be scoped in, however the assessment is presented within Appendix 7.5 [APP-352] and the accompanying text appears to indicate that the Applicant has decided to scope this out. Can the Applicant provide clarification as to the intended 	Community of Cold Slad	VP13 and VP14	Scoped out	The community may experience direct views, large changes which may appear dominant or form a noticeable feature in views or their visual resource at close proximity from locations along Cold Slad lane, limited to gaps in vegetation and between properties. The visual amenity for the Community of Cold Slad was assessed. The assessment determined that there would be no significant visual effects during construction or operation for the Community of Cold Slad. The content of the visual assessment has been moved to ES Appendix 7.5 Visual Assessment Tables (Document Reference 6.4).
	Table 7-12 of ES Chapter 7 Landscape and Visual erroneously states that the community of Birdlip may experience large changes in views which may appear dominant or form a noticeable feature in views. This should state that the community of Birdlip would have limited views of the proposed development.				
	Table 7-12 of ES Chapter 7 Landscape and Visual erroneously states that the community of Cold Slad is scoped into the assessment. This should state 'scoped out'.				
	These errors and their amendments were confirmed within the Response to the Examining Authority's Written Questions (ExQ1) (Document Reference 8.4, REP1-009).				

Document reference	Reason for amendment to the ES			Amend	ment to the ES						
Volume 6.2 Environmental Statement Chapter 8 Biodiversity (APP-039)	Change lowland meadow habitat references Correspondence with Natural England has confirmed that the habitat referred to as lowland meadow to the north of Shab Hill within ES Chapter 8 Biodiversity has originated from arable reversion, undertaken since 2002 under an Environmental Stewardship agreement. Therefore, whilst the habitat approximates to MG5a grassland, it is not semi-natural, unimproved grassland and does not meet definition of lowland meadow priority habitat. Therefore, updates to the impact assessment and valuation have been amended.	Paragraph 8.7.53 A field north of Slorchids, common neutral grassland described as an amanagement and originated from a	hab Hill was surve spotted orchids a of NVC communi atypical example. d exhibits characte rable reversion un	8.10.87, 8.10.97, 8.10.99, 8.10 yed due to the species-rich naturally yellow rattle (<i>Rhinanthus minity</i> MG5a (crested dog's-tail (<i>Cy</i> It has maintained good floristic deristics of a hay meadow. Correst dertaken since 2002 under an Et is not semi-natural, unimprove	ure of the grasslan nor), noted during nosurus cristatus) condition of high be spondence with Na Environmental Stev	d with a high con other species su and common kn otanical value du atural England ha wardship agreen	ver of forbs and sp rveys. This field w apweed (Centaure ie to sympathetic as as confirmed that t nent. Therefore, wh	ecies such as bee as assessed to be anigra)), although is agricultural his grassland has hilst the habitat			
	ES Chapter 8 Biodiversity erroneously states that the total area of this neutral species-rich grassland to the north of Shab Hill is 4.5ha. This should state 5.32ha.	riculial, species		nigh botanical value recorded to nnce.	the north of Shab	Hill is considere	d to be species-ric	h semi-improved			
		Paragraph 8.9.42 A field of high botanical value known to contain an abundance of orchids and approximating to NVC community MG5a was record north of Shab Hill. The topsoil containing the seed bank from this field would be stored and retained in order to use it in areas of no species-rich grassland habitat creation (including attenuation basins) or enhancement within the scheme. Methodologies will be detailed design and included in Annex D LEMP of ES Appendix 2.1 EMP (Document Reference 6.4).									
		Paragraph 8.10.87 Grassland The scheme would result in the following direct losses of grassland types, valued as being of local importance and above: Calcareous grassland – unimproved - national importance (HPI) (0.09ha). Calcareous grassland – semi-improved - county importance (2.44ha). Neutral grassland - semi-improved, species-rich grassland - county importance (HPI) (5.32 ha). Neutral grassland - semi-improved (other) - local importance (4.48ha). Neutral grassland poor semi-improved - local importance (36.17ha).									
		measuring appro reversion under a This meadow fall	ed areas of neutra ximately 5.32 ha, an Environmental s s within the main a	I species-rich grassland within to the noting to the noting to the noting to the noting to the stewardship agreement. It approalignment of the scheme and its der to use it in areas of nearby here.	orth of Shab Hill. The oximates to MG5a loss would be una	his species-rich (NVC community avoidable. The to	grassland originate	es from arable abundance of orchids.			
		would result in pe	ha of neutral speci ermanent/irreversil	ies-rich grassland habitat to the ble damage that would negative diversity resource.							
			tral semi-improved	I species rich grassland would ball effect associated with the s							
		Table 8-21 Summary of assessment of likely significant construction effects									
		Ecological Description of receptor potential impact enhancement measures Description of potential impact enhancement measures Durat rever					Magnitude of impact	Significance of potential effect			
		Species-rich neutral grassland		The topsoil and seed bank from this field would be stored and retained in order to use it in areas of nearby habitat creation within the scheme.	County	Permanent/ irreversible	Major adverse	Moderate adverse (significant)			

Document reference	Reason for amendment to the ES	Amendment to the ES
Volume 6.2 Environmental Statement Chapter 8 Biodiversity (APP-039)	Calcareous grassland net gain Table 8-18 of ES Chapter 8 Biodiversity correctly states the net gain of calcareous grassland and neutral grassland (75.41ha and 7.6ha respectively). However, paragraphs 8.9.86 and 8.9.115 state marginally incorrect totals.	Paragraphs 8.9.86 and 8.9.115 of ES Chapter 8 Biodiversity are amended to: Paragraphs 8.9.86 Mitigation measures would include landscape planting designed to replace that lost and incorporate features beneficial to invertebrates throughout the scheme. Habitat creation would include the planting of 75.41 ha of species-rich calcareous and 7.52 ha of neutral grassland with species beneficial to insects including pollinators. Species mixes would seek to include plants that provide a food source for scarce species identified onsite and especially within the SSSIs such chalkhill blue (<i>Lysandra coridon</i>), green hairstreak (<i>Callophrys rubi</i>), marsh fritillary (<i>Eurodryas aurinia</i>), Duke of Burgundy fritillary (<i>Hamearis Lucina</i>) and the day flying cistus forester moth (<i>Adscita Geryon</i>).
		Paragraphs 8.9.115 The landscape design focusses on provision of priority habitats that are present within the Cotswold AONB. Natural England and Gloucestershire Wildlife Trust's vision for the scheme was to increase the area of lowland calcareous grassland. The current area of unimproved and semi-improved calcareous grassland within the scheme boundary is approximately 4.9ha (of which 2.53ha would be lost). A total of 75.41 ha would be created following construction of the scheme. Whilst some of this area would be to compensate for the loss of SSSI calcareous grassland and mitigate the impacts of further fragmentation of SSSI habitat or loss of foraging habitat, the very large increase in calcareous grassland area exceeds that created for mitigation and is considered an enhancement. Furthermore, a 25m wide corridor of calcareous grassland will be provided across the Gloucestershire Way crossing, providing a continuous habitat link for calcareous grassland flora and fauna to disperse through the landscape. This is an enhancement in comparison to the Existing A417 which has no such provision.
Volume 6.2 Environmental Statement Chapter 9 Geology and soils (APP- 040)	Hydrology - Examining Authority's Written Questions (PD-008) Question 1.6.1: "a) With reference to paragraph 9.7.24 in ES Chapter 9 [APP040], can any more certainty be given as to the relationship between the stream south of the Birdlip junction and the Churn valley?" Paragraph 9.7.24 of ES Chapter 9 Geology and Soils erroneously refers to Birdlip Junction. This should refer to Birdlip Radio Station, as confirmed within the Response to the Examining Authority's Written Questions (ExQ1) (Document Reference 8.4, REP1-009).	Paragraph 9.7.24 of Chapter 9 Geology and Soils is amended to: The tributary of Norman's Brook is a watercourse running from east to west below Crickley Hill and is primarily groundwater fed. It is connected to the River Severn and rises from springs on the escarpment. A small stream was also noted above the escarpment, immediately south of Birdlip Station, which is possibly associated with the Churn valley near Shab Hill.

Document reference	Reason for amendment to the ES	Amendment to the ES											
	Clarification on Data - Examining Authority's Written Questions (PD-008) Question 1.1.17:	Tables 14-15 and 14 Table 14-15 Construc			ate are amended	to:							
	"In Chapter 14 of the ES [APP-045] Table 14-15 suggests total construction emissions of 74,114 tCO2e but paragraph 14.10.4 states this is 74,144. Confirm the correct figure"	Main stage of project life cycle		s	Sub-stage of life	cycle	Emissions (tCO₂e)		% of constr emiss	uction			
	Table 14-15 and Table 14-18 erroneously report the total construction emissions as 74,114 tCO ₂ e. This should state 74,144 tCO ₂ e, as confirmed within the Response to the		Pr		luding raw materi manufacture (A1-	al supply, transport and -A3)	40,698		55%				
	Examining Authority's Written Questions (ExQ1) (Document			truction	Transport to	o/from works site (A4)	2,668		4%				
	Reference 8.4, REP1-009).	Construction stage		ss stage; luding:	Construction/ins	stallation processes (A5)	20,818		28%				
				use change (D); to lost during cons	9,960		13%						
				Co	onstruction stage	e total	74,144		100%				
		Table 14-18 Assessm	Table 14-18 Assessment of scheme net emissions (up to 2032) against UK Government carbon budgets										
		Project stage		Estimated total (cumulative) GHG emissions over carbon budgets (tCO₂e) ('Do-		Net (cumulative) GHG emissions over carbon budgets (tCO _{2e}) ('Do-	emissions p		ative) scheme GHG per relevant carbon lget (tCO₂e)				
			Something' scenario)		g' scenario)	Something'-'Do-Minimum')	Third (2018 - 2022)	Fourth (2023 - 2027)	Fifth (2028 - 2032)	Sixth ¹ (2033 - 2037)			
			a period umed to ly 2023-	74,144		74,144	n/a	74,144	n/a	n/a			
		Operation (modelled from 2026 through to 2037) Total		2,373,212		152,565	n/a	22,158	61,196	69,211			
				2,447,356		226,709	n/a	96,302	61,196	69,211			

¹ The sixth carbon budget has been committed to by government and is expected to become law by June 2021.

Document reference	Reason for amendment to the ES					Amendment to the B	S		
Volume 6.4 Environmental Statement Appendix 6.1	Representation (REP1-098) Point 3 of Annex B:	Value (Sen		ıment Refere	nce 6.4, AP	cument Reference 6.2, APP-037 P-340) is amended to:	7) and Table 1-1 of ES Apper	ndix 6.1 Design	ated Assets:
Designated Assets: Value (Sensitivity) (APP- 340)	"3. The setting analysis in the EIA for Crickley Hill mentions modern intrusions but does not mention the inter-relationship of the natural and historic environment, which is such a critical aspect of its significance and setting, underplays this site's	NHLE	Name	Distance from scheme		Setting	Nature of impact	Magnitude of impact	Significance of effect
Value (Sensitivity) (APP- m th as visual in la. ch	the natural and historic environment, which is such a critical aspect of its significance and setting, underplays this site's visual and historic relationship to The Peak, Emma's Grove with its east-facing enclosure and other prehistoric monuments in the area, and its historic and visual relationship to views westwards. Considered as a whole, this group has national importance as evidence of how prehistoric peoples adapted the landscape as agricultural, social and religious practices changed. " Reference to the Peak was erroneously excluded from the setting description for Crickley Hill.		Crickley Hill camp Sitting in a prominent p of the Cotswold escarp Hill's setting is one of lowlands to the west, sl south, down onto the sl Hill itself, and to the sone Emma's Grove Barrows opposite the Peak, a North contemporary with the activity at Crickley Hill. connection between the that is likely to have involved of control over the space the A417. This relations substantially to the sign resource. This setting to range of modern intrusicity of Gloucester with in light industrial outskirts distance, and the A417 and passes next to the intrusions, the setting of demonstrates the situal Neolithic, Bronze Age aphases of the site and a		ronze Age and Iron Age he site and as such makes a contribution to the significance	visible from Crickley Hill in views to the south and woul alter some elements of the setting that contribute to its significance, in particular vietowards the contemporary prehistoric site, The Peak. To change to its setting would affect the ability to understate Crickley Hill in its wider contand as a consequence its significance would be diminished. This would equato a slight adverse effect according to the criteria in Table 6-4.	Adverse d ews This and ext,	Slight Adverse	
		NHLE	Name	Designatio	n Grade	Description	Setting	Value (sensitivity)	References
		1003586	Crickley Hill camp	Scheduled	N/A	two lines of interrupted ditches cut off the low knoll, accompanied by a bank built of stones taken from the ditch; two entrances; and pits and post-sockets that outline where structures would have stood. The phasing of the	Sitting in a prominent position on the edge of the Cotswold escarpment, Crickley Hill's setting is one of long views over the lowlands to the west, shorter views to the south, down onto the slopes of Crickley Hill itself, and to the south east across Emma's Grove Barrows.	High	Dixon, P W, 1977, Crickley Hill and Gloucestershire Prehistory, Gloucestershire County Council, Gloucester.

Reason for amendment to the ES	Amendment to the ES									
Volume 6.4 Environmental Statement Appendix 6.2 Archaeological Assessment (APP-341) National Trust Written Representation (REP1-098): "The hilltop location which favoured the establishment of Mesolithic and Neolithic communities prompted the choice of location for the radio station at Birdlip in the Second World War, which is a rare surviving example of its type and of 'Medium' significance in a national context." National Highways agrees with the National Trust to update the significance to 'Medium'.		intermittent use of the early site. Use of the site continued into the Iron Age with the addition of a hill-top enclosure. The development of Crickley Hill in the 7th/ 6th century BC saw the addition of a new rampart and ditched enclosure abutting the previous Neolithic. The occupation of the hillfort lasted no more than two generations before the site was abandoned. A second hillfort was constructed at the site around a century later with a central "great" roundhouse c. 50 feet in diameter, surrounded by sporadically placed smaller round houses and small square structures that were probably granaries or stores. Crickley Hill has archaeological interest due to the settlement remains known to be present. connection between these monuments, that is likely to have involved an element of control over the space now containing the A417. This relationship contributes substantially to the significance of the resource. This setting takes in a wide range of modern intrusions, not least the city of Gloucester with its residential and light industrial outskirts, the M5 in the mid distance, and the A417 as it approaches and passes next to the site. Despite these intrusions, the setting of the site clearly demonstrates the situation of the Neolithic, Bronze Age and Iron Age phases of the site and as such makes a substantial contribution to the significance of the resource.								
	Our Reference	HER reference		PAS	Description	Period	Туре	Significance	Lidar	Aerial photograph
	124	17036	1586997		A Second World War radio station	WWII	Military	Medium	No data available	RAF/CPE/U/1897 RS 4446-4447 12- DEC-1946; RAF/543/673 F41 0001- 0003 24- AUG-1959; RAF/543/1913 F22 0036- 0038 17-OCT- 1962; OS/70291 V 380-381; 357-358 11-AUG-1970; OS/89088 V 014- 015 21- APR-1989
	National Trust Written Representation (REP1-098): "The hilltop location which favoured the establishment of Mesolithic and Neolithic communities prompted the choice of location for the radio station at Birdlip in the Second World War, which is a rare surviving example of its type and of 'Medium' significance in a national context." National Highways agrees with the National Trust to update the	National Trust Written Representation (REP1-098): "The hilltop location which favoured the establishment of Mesolithic and Neolithic communities prompted the choice of location for the radio station at Birdlip in the Second World War, which is a rare surviving example of its type and of 'Medium' significance in a national context." 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The development of Crickley Hill in the 7th 6th century BC saw the addition of a new rampart and ditched enclosure subting the previous Neolithic. The occupation of the hillfort lasted no more than two generations before the site was abandoned. A second hillfort was constructed at the site around a century later with a central "great" roundhouse c. 50 feet in diameter, surrounded by sporadically placed smaller round houses and small square structures that were probably granaries or stores. Crickley Hill has archaeological interest due to the settlement remains known to be present. National Trust Written Representation (REP1-098): "The hilltop location which favoured the establishment of Mesolithic and Neolithic communities prompted the choice of location for the radio station at Birdlip in the Second World War, which is a rare surviving example of its type and of 'Medium' significance in a national context." 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