

A417 Missing Link TR010056

6.7 Environmental Statement - Updates and Errata (Rev 1)

Planning Act 2008

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

Volume 6

January 2022

Infrastructure Planning

Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

A417 Missing Link

Development Consent Order 202[x]

Environmental Statement - Updates and Errata (Rev 1)

Regulation Number:	5(2)(a)
Planning Inspectorate	TR010056
Scheme Reference	
Application Document Reference	6.7
Author:	A417 Missing Link

Version	Date	Status of Version
C01	May 2021	Application Submission
C02	January 2022	Deadline 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.

2 Environmental Statement Updates

2.1.1 Table 2-1 Environmental statement chapter updates has 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

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 include the 6th carbon budget. Table 14-1 UK third, fourth, fifth and sixth carbon budgets (as legislated by the Clir 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 Change Act 2008 and set out in the Carbon Budgets Order 2009, the Carbon Budget Order 2011 and the Carbon Budget Order 2016)	Carbon budget	Carbon budget level Million tonnes of carbon dioxide equivalents (MtCO ₂ e)	Reduction below 1990 levels				
		Third carbon budget (2018 - 2022)	2,544 MtCO₂e	37% by 2023				
		Fourth carbon budget (2023 - 2027)	1,950 MtCO₂e	51% by 2025				
		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	On 14th July 2021, the Department for Transport (DfT) published Decarbonising	Add under National policy heading.
Climate (APP- 045)	transport: a better, greener Britain, a plan to decarbonise the entire transport system	Decarbonising transport: a better, greener Britain
	in the UK. Section 14.3 Legislative and policy framework to include new policy.	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.
		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
Volume 6.2 Environmental	Net zero highways: Our 2030 / 2040 / 2050 plan	14.3 Legislative and policy framework
Statement Chapter 14	On 20th July 2021, National Highways published its Net zero highways: our 2030	Add under National policy heading.
Climate (APP- 045)	/ 2040 / 2050 plan. This responds to the government's Decarbonising transport: a	Net zero highways: Our 2030 / 2040 / 2050 plan
	better, greener Britain. Section 14.3 Legislative and policy framework to include new policy.	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.

Document reference	Reason for amendment to the ES			Amendment to th	e ES				
Volume 6.2 Environmental Statement	Table 14-18 Assessment of scheme net emissions (up to 2032) against UK Government carbon budgets to reflect	Table 14-18 Assessment of scheme net emissions (up to 2037) against UK Government carbon budgets							
Chapter 14 Climate (APP- 045)	the sixth carbon budget is now included in the assessment.		Estimated total (cumulative) GHG emissions	GHG emissions over carbon		cumulative sions per i budget			
			over carbon budgets (tCO₂e) ('Do-Something' scenario)	budgets (tCO _{2e}) ('Do-Something'- 'Do-Minimum')	Third (2018 - 2022)	Fourth (2023 - 2027)	Fifth (2028 - 2032)	Sixth ⁴ (2033 - 2037)	
		Construction (over a period of 42 months, assumed to commence in early 2023- 2026)	74,114	74,114	n/a	74,114	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	
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.	expected to be ownolly within the	anted, construction open to traffic in 20 e fourth carbon bud	is expected to start 26. Therefore, the c lget. Operation of th and sixth carbon b	construction e scheme	on period f e would co	or the sch	neme falls	

Document reference	Reason for amendment to the ES	Amendment to the ES
Volume 6.2 Environmental Statement Chapter 14 Climate (APP- 045)	Paragraph 14.10.13 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.

3 Environmental Statement Errata

- 3.1.1 Table 3-1 Environmental statement chapter errata has been produced to detail any errors or omissions within the ES which have been identified through the Examination and provides corrections as appropriate.
- 3.1.2 Table 3 4 Environmental statement chapter updates and errata Deadline 2 has been produced to detail any errors or omissions within the ES which have been identified at Deadline 2 of the Examination and provides corrections as appropriate.

Table 3-1 Environmental statement chapter errata

Document reference	Reason for amendment to the ES				Am	nendment to the	ES				
Statement Chapter 2 – The Project (APP-033)	expected changes to landscape,	Based on the curr change, such as s in ES Chapter 4 E changes to road of	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 lange, 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 langes 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	ragraph 5.10.30 of ES Chapter 5 is amended to: ceptors 17, 19 and 22 are located in the Cheltenham AQMA. Receptor 17 has the largest increase in concentration (0.9μg/m³) as a result of the scheme. The highest dicted 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)	Paragraph 5.10.24 - omission of Receptor 71 from discussion of results.	In this discussion authority monitoring 61µg/m3 was record the road. There arrisk of exceedance	aragraph 5.10.24 of ES Chapter 5 is amended to: It 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 authority monitoring showed that roadside concentrations of annual mean NO2 in the Birdlip AQMA were above the AQO. A maximum monitored concentration of 1µg/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 the 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 set 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 concentrations 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		Receptor 71 of ES Chapter 5 is added to Table 5-6. Table 5-6 NO ₂ concentrations at selected receptors – discussion region 1									
Quality (APP-APP-036)	Omission of Receptor 71 from Table 5-6.	Receptor Grid Reference (m)		1	Figure sheet reference			Change (DS-DM) (µg/m3)	AADT change		
			X	Υ		2016 Base	2026 DM	2026 DS			
		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	
		53	393457 393752	216129 215136	9	42.7 10.7	39.1 8.6	9.5	-16.3 0.8	8,286 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	
•	Paragraph 6.7.2 states an erroneous distance of 70m between the proposed scheme and Emma's Grove. This should be 50m.	Paragraph 6.7.2 one designated rebarrows, known c	esource lies within	n the DCO Boundary	, but outside of the fo 017079). This resour	potprint of the so	cheme. This scl proximately 50	heduled monu m to the south	ment consists of a grou of the scheme at its clo	o of three round esest point.	

Document reference	Reason for amendment to the ES				Amendment to	the ES				
Volume 6.2	Table 6-6 Scheduled monuments	Row 10 of Table 6-6 of ES Chapter 6 is amended as follows. Table 6-6 Scheduled monuments (high value)								
Environmental										
Statement Chapter 6 – 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	Nature of impact	Magnitude of impact	Significance of effect		
	Grove. This should be 50m.	1017079	Three bowl barrows, known as Emma's Grove barrows	50m	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.	Passing approximately 50m to the north of these barrows, the scheme would alter the immediate setting of the barrows, although this would be ameliorated slightly by the removal of the Existing A417 immediately to the west. The scheme would represent a modern alteration to the wider rural landscape within which these barrows sit. This wider rural setting, which contains a number of other prehistoric funerary monuments, provides context to the barrow, of which the concept of movement through the landscape is a key aspect. The scheme would create a physical barrier in the landscape that would be highly intrusive in the setting of the barrows and as a result adversely affect the significance of the resource. This would equate to a moderate adverse effect according to the criteria in Table 6-4.	Minor adverse	Moderate adverse (significant effect)		
Volume 6.2 Environmental Statement Chapter 8 Biodiversity (APP-039)	Paragraph 8.9.32 requires revision as it understates the total amount of woodland created by the scheme.	Paragraph 8.9 Approximately A417 from Bro scheme for the of a field to the	9.32 of ES Chapte 7.5ha of new broackworth to the Crie benefit of bat species south of Ullen Weight	r 8 is amended adleaved wood ckley Hill area t ecies. Mixed bro ood. This would		on and to ensure continuity of woodland o species of approximately 5ha in area wancient woodland. Similarly, additional tro	habitat along this ould also be plan	s section of the ted round the borde		
Volume 6.2	Table 8-6 Summary of field					and chian trees.				
Environmental	survey methods used for each	Row 1 of Table 8-6 is amended as follows. Table 8-6 Summary of field survey methods used for each type of biodiversity resource relevant 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 str mapped, and potentia notable species estal the standard JNCC m	al for protected and blished following		ES Appendix 8.1 (Document Reference 6.4), and the 2017 Preliminary Ecological Appraisal report ²⁴ .				
V-l	D	D	10.0F - 4.F0.0h 4	0:	d for					
Volume 6.2 Environmental		Although the T		identified local	d to: ised areas where elevated contamination effects on controlled waters during const					

n error where ity of the s Brook was ', when it ported as n error where nce of effect atral' for the e Brook, s Brook and r Churn, when reported as	Table 9-9 of ES Chapter 9 Table 9-9 Summary of experiments of ES Chapter 9 Potential impact Contaminated soil, leachate/ groundwater/ direct discharge and pollution of aquifers Vertical and lateral migration of leachate/ groundwater contamination and/or direct contact with soil contamination Contaminated soil, leachate/ groundwater/ direct discharge and impact on surface watercourses Pollution migration through new drainage installed as part of slope stabilisation measures Pollution migration along piles/ underground structures	ffects du	eptor ater Ir	Description nferior Oolite and Great Oolite Principal Aquifers	Medium	Tier 1: Preliminary Ris available information of ground investigations and groundwater cher concern have been ide and site specific assess required. This would be	on potential sources in (e.g. evidence of com- nical testing) have be entified, subject to ad- esments, remediation	er 2: GQRA, informed by nocluding desk study, and tamination and/or soil en completed. Areas of ditional investigations measures may be	Magnitude of impact Negligible Negligible Negligible	Residual significance of effect Slight adverse Neutral		
n error where ity of the s Brook was ', when it ported as n error where nce of effect utral' for the e Brook, s Brook and r Churn, when	Potential impact Contaminated soil, leachate/ groundwater/ direct discharge and pollution of aquifers Vertical and lateral migration of leachate/ groundwater contamination and/or direct contact with soil contamination Contaminated soil, leachate/ groundwater/ direct discharge and impact on surface watercourses Pollution migration through new drainage installed as part of slope stabilisation measures Pollution migration along piles/	Rece Groundwar	eptor ater Ir	Description Description Inferior Oolite and Great Oolite Principal Aquifers Superficial deposits - Secondary A aquifer Lias Group - Secondary undifferentiated) aquifer	sensitivity High Medium Low	Tier 1: Preliminary Ris available information of ground investigations and groundwater cher concern have been ide and site specific assess required. This would be	k Assessment and Ti on potential sources in (e.g. evidence of con- nical testing) have be entified, subject to ad- ssments, remediation	er 2: GQRA, informed by nocluding desk study, and tamination and/or soil en completed. Areas of ditional investigations measures may be	Negligible Negligible	significance of effect Slight adverse Neutral		
ity of the s Brook was ', when it ported as n error where nce of effect atral' for the e Brook, s Brook and r Churn, when	Contaminated soil, leachate/ groundwater/ direct discharge and pollution of aquifers Vertical and lateral migration of leachate/ groundwater contamination and/or direct contact with soil contamination Contaminated soil, leachate/ groundwater/ direct discharge and impact on surface watercourses Pollution migration through new drainage installed as part of slope stabilisation measures Pollution migration along piles/	Groundwat	ater In S S S L ((nferior Oolite and Great Oolite Principal Aquifers Superficial deposits - Secondary A aquifer Lias Group - Secondary undifferentiated) aquifer	sensitivity High Medium Low	Tier 1: Preliminary Ris available information of ground investigations and groundwater cher concern have been ide and site specific assess required. This would be	k Assessment and Ti on potential sources in (e.g. evidence of con- nical testing) have be entified, subject to ad- ssments, remediation	er 2: GQRA, informed by nocluding desk study, and tamination and/or soil en completed. Areas of ditional investigations measures may be	Negligible Negligible	significance of effect Slight adverse Neutral		
', when it ported as n error where nce of effect atral' for the e Brook, is Brook and r Churn, when	groundwater/ direct discharge and pollution of aquifers Vertical and lateral migration of leachate/ groundwater contamination and/or direct contact with soil contamination Contaminated soil, leachate/ groundwater/ direct discharge and impact on surface watercourses Pollution migration through new drainage installed as part of slope stabilisation measures Pollution migration along piles/		L ((Principal Aquifers Superficial deposits - Secondary A aquifer Lias Group - Secondary undifferentiated) aquifer	Medium Low	available information of ground investigations and groundwater cher concern have been ide and site specific asses required. This would be	on potential sources in (e.g. evidence of com- nical testing) have be entified, subject to ad- esments, remediation	ncluding desk study, and tamination and/or soil en completed. Areas of ditional investigations measures may be	Negligible	Neutral		
nce of effect utral' for the e Brook, s Brook and r Churn, when	Vertical and lateral migration of leachate/ groundwater contamination and/or direct contact with soil contamination Contaminated soil, leachate/ groundwater/ direct discharge and impact on surface watercourses Pollution migration through new drainage installed as part of slope stabilisation measures Pollution migration along piles/	Surface wa	L (u	Secondary A aquifer Lias Group - Secondary undifferentiated) aquifer	Low	and groundwater cher concern have been ide and site specific asses required. This would be	nical testing) have be entified, subject to ad- esments, remediation	en completed. Areas of ditional investigations measures may be				
nce of effect utral' for the e Brook, s Brook and r Churn, when	leachate/ groundwater contamination and/or direct contact with soil contamination Contaminated soil, leachate/ groundwater/ direct discharge and impact on surface watercourses Pollution migration through new drainage installed as part of slope stabilisation measures Pollution migration along piles/	Surface wa	/ater T	undifferentiated) aquifer	LOW	required. This would b			Negligible	1		
s Brook and r Churn, when	Contaminated soil, leachate/ groundwater/ direct discharge and impact on surface watercourses Pollution migration through new drainage installed as part of slope stabilisation measures Pollution migration along piles/	Surface wa		Fributary of Horsbere Brook	Medium	The impact would be				Neutral		
	Pollution migration through new drainage installed as part of slope stabilisation measures Pollution migration along piles/		Т			EMP (ÉS Appendix 2. appropriate hazardous	1 EMP (Document Resemble and EMP (Document Resemble and EMP) and E	materials management	Negligible	Slight adverse		
				Tributary of Norman's Brook		control systems would through the risk asses	be targeting areas of sments.	f concern identified the risk of discharging	Negligible	Slight adverse		
			R	River Frome and its tributaries	9	surface water runoff a	,	etails on the drainage	Negligible	Slight adverse		
Table 9-10 Summary of effects			T	Fributary of River Churn		Materials reused withi associated MMP (ES A Plan (Document Refer suitable for end use, i. risk to controlled wate	Appendix 2.1 Environ rence 6.4)) and therefe. those that would no	mental Management	Negligible	Slight adverse		
						foundations or ground	eted for individual structures where deep nd improvement works are proposed, to be the design at detailed design stage.					
	Table 9-10 of ES Chapter 9 is amended as follows.											
during operation	Table 9-10 Summary of effects during operation											
sly omitted – Secondary <i>i</i> oup –	Potential impact		Receptor	Descrip	tion	Receptor sensitivity	Design and Mitigation measures	Magnitude of impac	Residual sig			
entiated	Exposure to soil contamination	On-	-site users	Maintenance workers		Medium	N/A	Negligible	Slight beneficial			
ater receptors				Highway users		Low	_	No change	Neutral			
al phase of the		Off-	f-site users	Residents of nearby prop	erties	Very High		No change	Neutral			
				WCH (Public open space	users)	High		Negligible	Slight beneficial			
ity of the	due to rainwater infiltration from s	soils	oundwater	Aquifer	·	High	N/A	Negligible	-			
	and lateral migration to surface w											
				aquifer)		Low						
	construction	Isea in Surf	rface water				_					
Table 9-10 contains an error where the residual significance of effect	•						_					
					aries		4					
				Tributary of River Churn		Medium		Negligible	Slight adverse			
during the operational phase of the scheme. Table 9-10 contains an error where the receptor sensitivity of the Tributary of Norman's Brook was reported as 'medium', when it should have been reported as 'high'. Table 9-10 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'.	Leaching and migration of contar due to rainwater infiltration from sused in construction to groundwa and lateral migration to surface wareas of landscaping Surface run-off to surface water is areas of landscaping from soils used in construction The error where the err	Leaching and migration of contaminates due to rainwater infiltration from soils used in construction to groundwater and lateral migration to surface water in areas of landscaping Surface run-off to surface water in areas of landscaping from soils used in construction Surface run-off to surface water in areas of landscaping from soils used in construction Surface run-off to surface water in areas of landscaping from soils used in construction	Leaching and migration of contaminates due to rainwater infiltration from soils used in construction to groundwater and lateral migration to surface water in areas of landscaping Surface run-off to surface water in areas of landscaping from soils used in construction Surface water Surface water Surface water	Leaching and migration of contaminates due to rainwater infiltration from soils used in construction to groundwater and lateral migration to surface water in areas of landscaping Surface run-off to surface water in areas of landscaping from soils used in construction Tributary of Horsebere Brook, Brook and WCH (Public open space Inferior Oolite and Great of Aquifer Superficial deposits – Sec Lias Group – Secondary (aquifer) Surface water Tributary of Horsebere Brook, Brook and	The error where of the Brook was when it orted as an error where se of effect al' for the Brook, Brook and Construction to groundwater and lateral migration to surface water in areas of landscaping from soils used in construction to groundwater and lateral migration to surface water in areas of landscaping from soils used in construction Construction to groundwater and lateral migration to surface water in areas of landscaping from soils used in construction Construction Contaminates due to rainwater infiltration from soils used in Aquifer	Tributary of River Churn WCH (Public open space users) WCH (Public open space users) High WCH (Public open space users) High Inferior Oolite and Great Oolite – Principal Aquifer Superficial deposits – Secondary A aquifer Superficial deposits – Secondary (undifferentiated aquifer) Surface run-off to surface water in areas of landscaping from soils used in construction Surface water Tributary of Horsebere Brook River Frome and its tributaries High Tributary of River Churn Medium Medium Tributary of River Churn Medium	MCH (Public open space users) High	MCH (Public open space users) WCH (Public open space users) High Negligible Negligible	MCH (Public open space users) Leaching and migration of contaminates due to rainwater infiltration from soils used in construction to groundwater and lateral migration to surface water in areas of landscaping Surface run-off to surface water in areas of landscaping from soils used in construction Tributary of Norman's Brook Brook, Brook and MCH (Public open space users) High Negligible Negligible Negligible Slight adverse Negligible Slight adverse Negligible Slight adverse Negligible Slight adverse Negligible Slight adverse Negligible Slight adverse Negligible Negligible 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 updates and errata – Deadline 2

Document reference	Reason for amendment to the ES				Amendment to the	ne ES						
/olume 6.2 Environmental Statement Chapter 5 –	Questions (PD-008) Question 1.2.5	Additional Air Qual (Document Reference Table 1 Details of P	e 8.4, REP1-00	9):		Response to the	Examining Autho	ority's Written Questions (
Air quality	Chapter 5 [APP-036], in relation the PM10 and PM2.5, be	Local Authority an		Site name	Site Classific	ation	National grid references					
	published and made available to the Examination?"						X	Y				
	Background PM10 concentrations for 2017 the baseline year	Stroud Hardwicke	Hardw	icke	Surburban	3802	203	212842				
	are shown in Table 1-5 of Environmental Statement (ES) Appendix 5.4 Air quality baseline data (Document Reference	Stroud Haresfield	Hares	ield	Rural	3813		210015				
	6.4, APP-336).	L			I	I		L				
	No further particulate manitaring (DM10 or DM2.5) was	Table 2 Local author	rity monitorin	g results for PM1	Л 10							
	No further particulate monitoring (PM10 or PM2.5) was included in the ES as the assessment of PM10 and PM2.5 was	Local Authority	Site nam	•		National grid	al grid references					
	scoped out at the scoping stage as the total concentrations in	and ID		2015	2016	2017	2018	2019				
	the study area are well below the relevant air quality objectives. However, further monitoring results have been submitted as	Stroud Hardwicke	Hardwicke	N/A	N/A	N/A	9.9	10.1				
	Appendix B in the Response to the Examining Authority's	Stroud Haresfield	Haresfield	N/A	N/A	N/A	9.9	8.6				
	Written Questions (ExQ1) (Document Reference 8.4, REP1-	Table 2 Least south	ble 3 Local authority monitoring results for PM2.5									
	009).	Local Authority	Site nam		2.5	National grid	roforonoos					
		and ID	Site main	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				
		Table 4 Predicted PM2.5 background pollutant concentrations for 2018										
		Local Authority	INIZ:5 DACKGIOU	iu ponutani com	Centrations for 2016	ncentration						
					Max		(μg/m3) Min	Average				
		Cheltenham Boroug	h Council		10.3		8.0	9.2				
		Cotswold District Co	ouncil		10.4		7.7	8.4				
		Gloucester City Cou	ıncil		11.1		8.4	9.8				
		South Gloucestersh	ire District Cour	cil	10.9		7.4	8.2				
		Stroud District Coun	ncil		10.6		7.5	8.3				
		Swindon Borough C	ouncil		11.3		8.4	9.4				
		Tewkesbury Boroug	h Council		10.7		7.9	8.6				
		West Berkshire Cou			11.5		8.3	9.2				
		West Oxfordshire Di	istrict Council		11.1		8.2	9.1				
		Wilshire Council			11.4		7.6	8.4				

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 5.11.2.
Volume 6.2 Environmental Statement Chapter 5 – Air quality (APP-036)	Additional paragraph under Section 5.11 Monitoring required to reflect the need for operational monitoring of Ullen Wood Ancient Woodland and Veteran Trees (VT VT13, VT21, VT43 and VT98), in response to the Joint Council's Statement of Common Ground (see the Statement of Commonality, Appendix A (Document Reference 7.3, REP1-006).	New Paragraph 5.11.3 added for ES Chapter 5 – Air Quality: Air quality monitoring would be undertaken at appropriate locations to determine emissions during operation of the scheme and confirm the impact on Ullen Wood Ancient Woodland and veteran trees. Monitoring would be undertaken for 1 year from the first full year of operation. Should monitoring identify poorer air quality, remedial action would be required.
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 confirmed within the Response to the Examining Authority's Written Questions (ExQ1) (Document Reference 8.4, REP1-009).	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
Volume 6.2 Environmental Statement Chapter 6 – Cultural heritage (APP- 037)	Site missing from Archaeological Assessment - Womble 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)" 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)	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 • 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	nent direct impact	s on non-designa	ated resources wit	hin DCO Bounda	ry				
	"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 27 are sites record recorded by the P	ed heritage resou ded in the Glouce	rces are present	t within the study a c Environment Re	rea, of which 36	lie within the DCO the others represe	Boundary for the nt individual artef	scheme. Of these, act find-spots		
	The reference to 116 heritage resources is erroneous. This should state 36.										
Volume 6.2 Environmental Statement Chapter 6 – Cultural heritage (APP- 037)	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"	located to take advantage of views to the west from the escarpment, and towards a contemporary prehistoric enclosure on Crickley Hill. These views today contain modern infrastructure including the A417, M5 and other modern development that forms the urban curtilage of Gloucester to the west. Despite this, the location of Peak Camp, and views from it make a positive contribution to its significance.									
	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	B. Visual receptors: • "For the Community of Birdlip, Table 7-12 notes that	Receptor	Representative viewpoint number	Receptor scoped in/out	Reason
(APP-038)	"Parts of 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 to the north and east of Birdlip". Can the Applicant provide a justification for not including the assessment within the main ES chapter, as it has currently been scoped out and is reported in Appendix 7.5 [APP-352], despite the assessment indicating that it is of a medium sensitivity with a potentially moderate adverse effect during construction, which therefore may require scoping into the 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 location of this assessment?"	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).
		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).				

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 Hil 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.

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.

Paragraphs 8.7.53, 8.7.55, 8.9.42, 8.10.87, 8.10.97, 8.10.99, 8.10.101 and **Table 8-21** of Chapter 8 Biodiversity are amended to: Paragraph 8.7.53

A field north of Shab Hill was surveyed due to the species-rich nature of the grassland with a high cover of forbs and species such as bee orchids, common spotted orchids and yellow rattle (*Rhinanthus minor*), noted during other species surveys. This field was assessed to be neutral grassland of NVC community MG5a (crested dog's-tail (*Cynosurus cristatus*) and common knapweed (*Centaurea nigra*)), although is described as an atypical example. It has maintained good floristic condition of high botanical value due to sympathetic agricultural management and exhibits characteristics of a hay meadow. Correspondence with Natural England has confirmed that this grassland 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.

Paragraph 8.7.55

Neutral, species rich grassland of high botanical value recorded to the north of Shab Hill is considered to be species-rich semi-improved neutral grassland of county importance.

Paragraph 8.9.42

A field of high botanical value known to contain an abundance of orchids and approximating to NVC community MG5a was recorded to the 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 neutral species-rich grassland habitat creation (including attenuation basins) or enhancement within the scheme. Methodologies will be developed through 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) (5.32ha).
- Neutral grassland semi-improved (other) local importance (4.48ha).
- Neutral grassland poor semi-improved local importance (36.17ha).

Paragraph 8.10.97

There are localised areas of neutral species-rich grassland to be lost within the DCO Boundary. Most notably, a grazed and managed meadow, measuring approximately 5.32ha, of high botanical value to the north of Shab Hill. This species-rich grassland originates from arable reversion under an Environmental Stewardship agreement. It approximates to MG5a NVC community and, contains an abundance of orchids. This meadow falls within the main alignment of the scheme and its loss would be unavoidable. 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.

Paragraph 8.10.99

The loss of 5.32ha of neutral species-rich grassland habitat to the north of Shab Hill, in the early stages of the construction programme, would result in permanent/irreversible damage that would negatively affect the integrity of the resource. The habitat loss would represent a major adverse impact upon this biodiversity resource.

Paragraph 8.10.101

In summary, neutral semi-improved species rich grassland would be subject to a major adverse impact due to loss resulting from construction activities. The residual effect associated with the scheme is considered to be moderate adverse at the county level, and significant.

Table 8-21 Summary of assessment of likely significant construction effects

Ecological receptor	Description of potential impact	Embedded design, mitigation, and enhancement measures	Importance of receptor	Duration and reversibility	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.	,	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 75.41ha of species-rich calcareous and 7.6ha 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 75.41ha 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	Hydrology - Examining Authority's Written Questions (PD-008) Question 1.6.1:	Paragraph 9.7.24 of Chapter 9 Geology and Soils is amended to: The tributory of Norman's Prock is a watercourse running from each to weet below Crickley Hill and is primarily groundwater fed. It is
Environmental Statement Chapter 9 Geology and soils (APP-040)	"a) With reference to paragraph 9.7.24 in ES Chapter 9	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 Radio Station, which is possibly associated with the Churn valley near Shab Hill.
	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).	

Document reference	Reason for amendment to the ES				Amen	dment to the ES						
Volume 6.2 Environmental	Clarification on Data - Examining Authority's Written Questions (PD-008) Question 1.1.17:	Tables 14-15 and 14 Table 14-15 Construc			Climate are amended	to:						
Statement Chapter 14 Climate (APP-045)	"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			Sub-stage of life	cycle	Emiss (tCC		const	f total ruction sions*		
	Table 14-15 and Table 14-18 erroneously report the total construction emissions as 74,114 tCO ₂ e. This should state		Pr	oduct stage	e; including raw mater manufacture (A1	al supply, transport and -A3)	40,698		55%			
	74,144 tCO ₂ e, as confirmed within the Response to the Examining Authority's Written Questions (ExQ1) (Document			Construction Trans		o/from works site (A4)	2,668		4%			
	Reference 8.4, REP1-009).	Construction stage	process stage; including:		Construction/ir	stallation processes (A5)	20,818		28%			
			Land use change (D); future loss of abilit habitats lost during construction (over the				9,960		13%			
					Construction stag	e total	74,144 100%	100%				
		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 (tCO ₂ e) ('Do-		Net (cumulative) GHG emissions over carbon budgets (tCO _{2e}) ('Do-	n emissions per relevant carbon budget (tCO₂e)							
			Something' scenario)		Something'-'Do-Minimum') Third	Fourth	Fifth	Sixth ¹			
							(2018 - 2022)	(2023 - 2027)	(2028 - 2032)	(2033 - 2037)		
		Construction (over a period of 42 months, assumed to commence in early 2023-2026)				74,144	n/a	74,114	n/a	n/a		
		Operation (modell 2026 through to				152,565	n/a	22,158	61,196	69,211		
		Total		2,447,356		226,709	n/a	96,302	58 61,196 69,211 02 61,196 69,211	69,211		
Volume 6.2 Environmental	Clarification on Terminology - Examining Authority's Written Questions (PD-008) Question 1.1.12:	Table 18-1 of ES Cha		lossary is an	nended to:		•	•	•	•		
Statement Chapter 18 Glossary (APP-049)	"There are numerous instances where the phrase "at grade" is utilised. For clarity, what does this term mean and is it the	Glossary term					Description	ription				
	same in all instances where it appears (for example paragraph 6.2.81 of the Case for the Scheme)?"	At grade				Any element of the scheme, for example roads, crossings or footpaths, that are at the same level as each other.						
	Addition of ' At-grade' within the Applicant's response in the Response to the Examining Authority's Written Questions (ExQ1) (Document Reference 8.4, REP1-009).											

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

Volume 6.4 Environmental Statement Appendix 6.1 Designated Assets: 340)

Missing reference to the Peak – National Trust Written Representation (REP1-098) Point 3 of Annex B:

"3. The setting analysis in the EIA for Crickley Hill mentions Value (Sensitivity) (APP- 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 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.

Table 6-3 of ES Chapter 6 Cultural heritage (Document Reference 6.2, APP-037) and **Table 1-1** of ES Appendix 6.1 Designated Assets: Value (Sensitivity) (Document Reference 6.4, APP-340) is amended to:

Table 6-6 Scheduled monuments (high value)

	NHLE	Name	Distance from scheme	Setting	Nature of impact	Magnitude of impact	Significance of effect
ļ	1003586	Crickley Hill camp	250m	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. Crickley Hill sits opposite the Peak, a Neolithic enclosure contemporary with the earliest phases of activity at Crickley Hill. There is a clear 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.	The widened A417 would be visible from Crickley Hill in views to the south and would alter some elements of the setting that contribute to its significance, in particular views towards the contemporary prehistoric site, The Peak. This change to its setting would affect the ability to understand Crickley Hill in its wider context, and as a consequence its significance would be diminished. This would equate to a slight adverse effect according to the criteria in Table 6-4.	Minor Adverse	Slight Adverse

Table 1-1 Designated assets - Description, setting and value (sensitivity)

NHLE	Name	Designation	Grade	Description	Setting	Value (sensitivity)	References
1003586	Crickley Hill camp	Scheduled	N/A	hill. The site is comprised of two lines of interrupted ditches cut off the low knoll, accompanied by a bank built	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. Crickley Hill sits opposite		Dixon, P W, 1977, Crickley Hill and Gloucestershir e Prehistory, Gloucestershir e County Council, Gloucester.

						Use of the site conti	inued into	to have	involved an		
Volume 6.4 Nation	onal Trust Written Representation (REP1-098):	The Archaeol	ogy Databas	a in Annandiy	γ 1 of Δη	the Iron Age with the of a hill-top enclosure development of Cricin the 7th/ 6th centural saw the addition of rampart and ditched enclosure abutting the previous Neolithic. To occupation of the hill lasted no more than generations before was abandoned. As hillfort was constructed around a centur with a central "great roundhouse c. 50 fediameter, surrounded sporadically placed round houses and sequence structures the probably granaries of Crickley Hill has archaeological interthe settlement remarknown to be present opendix 6.2 Archaeological of the settlement remarknown to be present opendix 6.2 Archaeological of the settlement remarknown to be present opendix 6.2 Archaeological of the settlement remarknown to be present opendix 6.2 Archaeological of the settlement remarknown to be present opendix 6.2 Archaeological of the settlement remarknown to be present opendix 6.2 Archaeological of the settlement remarknown to be present opendix 6.2 Archaeological of the settlement remarknown to be present opendix 6.2 Archaeological opendix 6.	e addition re. The ckley Hill ry BC a new d the The illfort n two the site second cted at the ry later t'' eet in ed by smaller small nat were or stores. rest due to ains at.	element space n A417. T contributhe sign resource takes in modern least the with its in light ind the M5 in distance it approa next to to these in setting of demons of the N Age and of the si makes a contribut significat resource	of control over the ow containing the ow containing the own containing the own containing the own containing the substantially ificance of the e. This setting a wide range of intrusions, not e city of Gloucest residential and ustrial outskirts, in the mid e, and the A417 and the A417 and the site. Despite trusions, the of the site clearly strates the situation eolithic, Bronze of the substantial attion to the ence of the e.	e to to ser	
Archaeological Mesolia Assessment (APP-341) location	"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,	Archaeology Our Reference	Database HER reference	NMR / HE reference	PAS	Description	Period	Туре	Significance	Lidar	Aerial photograph
and of Nationa	The state of the specific spec	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