M5 Junction 10 Improvements Scheme

Statement of Common Ground

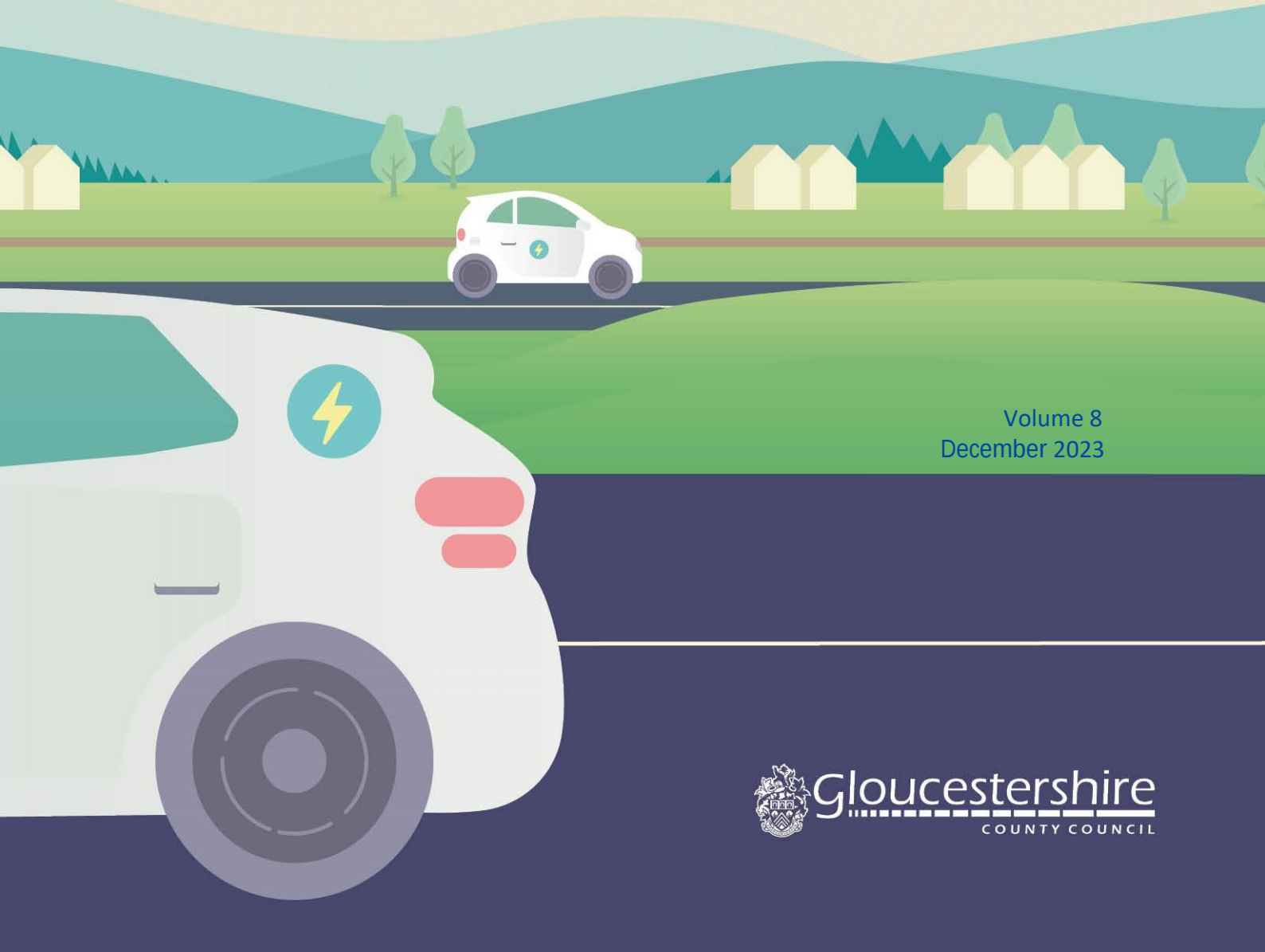
Environment Agency

TR010063 - APP 8.3

Regulation 5(2)(q)

Planning Act 2008

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



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Infrastructure Planning

Planning Act 2008

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

M5 Junction 10 Improvements Scheme

Development Consent Order 202[x]

8.3 Statement of Common Ground Environment Agency

Regulation Number:	Regulation 5(2)(q)
Planning Inspectorate Scheme Reference	TR010063
Application Document Reference	TR010063/APP/8.3
Author:	M5 Junction 10 Improvements Scheme Project Team

Version	Date	Status of Version
Rev 0	December 2023	DCO Application

STATEMENT OF COMMON GROUND

This Statement of Common Ground has been prepared and agreed by (1) Gloucestershire County Council and (2) the Environment Agency.

Signed

On behalf of Gloucestershire County Council

Date:

Signed

On behalf of the Environment Agency

Date:

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Tables

Glossary

Table 1-1 - Glossary

Term	Meaning /.Definition
(The) Act	The Planning Act 2008 (as amended)
(The) Applicant	Gloucestershire County Council (Strategic Development Team) applying for the DCO.
Biodiversity Net Gain (BNG)	Biodiversity Net Gain delivers measurable improvements for Biodiversity by creating or enhancing habitats in association with development.
Carter Jonas (CJ)	Land referencing consultant working on behalf of the Applicant
Cheltenham Borough Council (CBC)	CBC is the local planning authority for Cheltenham Borough, and is a statutory consultee for the Scheme, as defined under section 42 (1)(b) of the Act.
Development Consent Order (DCO)	The consent for the construction, operation and maintenance of Nationally Significant Infrastructure Projects (NSIP) given by the relevant Secretary of State on the recommendation of the Planning Inspectorate under the Planning Act 2008 (as amended).
Environment Agency (EA)	A non-departmental public body with responsibilities relating to the protection and enhancement of the environment in England.
Environmental Impact Assessment (EIA)	A process of evaluating the likely environmental impacts of a proposed development, including inter-related socioeconomic, cultural and human health impacts, both beneficial and adverse.
Environmental Statement (ES)	Reports the findings of the EIA, including at least the information reasonably required to assess the likely significant environmental effects of the development.
Examining Authority (ExA)	The person(s) appointed by the Secretary of State (SoS) to assess the DCO application and make recommendation to the SoS.
Flood Risk Assessment (FRA)	An assessment on the likelihood of flooding in a particular area so that development needs, and mitigation measures can be considered.
Gloucestershire County Council (GCC)	Gloucestershire County Council. It is therefore a statutory consultee for the Scheme, as defined under section 42(1)(b) and section 43(c) of the Planning Act 2008 (“the Act”). GCC is the local highway authority in Gloucestershire and is the Minerals and Waste Planning Authority (MWPA) for Gloucestershire. GCC also has statutory duties in relation to drainage, flood risk, and heritage assets and archaeology
Historic England	Publicly funded body that champions and protects England’s historic places, also known as the Historic Buildings and Monuments Commission for England.
Host Authority	The local authority, within which the Scheme would be situated, In this case, Cheltenham Borough Council, Gloucestershire County Council and Tewkesbury Borough Council.
Local Planning Authority (LPA)	The county council, metropolitan, or district council, which has statutory responsibilities within its administrative areas.

Nationally Significant Infrastructure Project (NSIP)	A project of a type and scale defined under the Planning Act 2008 and by Order of the Secretary of State (SoS) relating to energy, transport, water, wastewater and waste generally. These projects require a single development consent, which includes consents under different regimes, such as planning permission, listed building consent and scheduled monument consent.
Natural England (NE)	Executive non-departmental public body responsible for the natural environment.
Planning Inspectorate (PINS)	The Government Agency responsible for operating the planning process for NSIPs. The Planning Inspectorate is responsible for examining DCO applications and making recommendations to the relevant SoS, who will make the decision on whether to grant or to refuse development consent. The SoS for Transport takes the decision on applications for highway NSIPs.
Preferred Route Announcement	Designation of a proposed option as a 'preferred route' by the Department for Transport and provides a form of planning protection from development of land in the vicinity of the M5 Junction 10 improvement scheme
Statement of Community Consultation (SoCC)	Prepared in accordance with Section 47 of the Planning Act 2008, to inform, explain and communicate how the consultation will be undertaken.
Statutory Consultation	In accordance with the Planning Act 2008, applicants of major infrastructure projects have a statutory duty to carry out a consultation on their proposals before submitting an application to the Planning Inspector.
(the) Scheme	The proposed M5 Junction 10 improvements development which is the subject of a DCO application.
Tewkesbury Borough Council (TBC)	Tewkesbury Borough Council.is the local planning authority for Tewkesbury Borough and a statutory consultee for the Scheme, as defined under section 42(1)(b) and section 43(b) of the Act.
Water Framework directive	The Water Framework Directive (2000/60/EC) which established a framework for European Community action in the field of water policy.

1. Introduction

1.1.1. This Statement of Common Ground (SoCG) has been prepared in respect of the application for the M5 Junction 10 Improvements Scheme ("the Scheme") made by Gloucestershire County Council (GCC) (the Applicant) to the Secretary of State for a Development Consent Order (DCO) under section 37 of the Planning Act 2008.

1.1.2. If made, the DCO would grant consent for the construction of improvement works to M5 Junction 10, consisting of a new all-movements motorway junction, a new West Cheltenham Link Road (the Link Road from the A4019 to B4634 (Old Gloucester Road)), and the widening of the A4019 (Tewkesbury Road) east of the junction to the Gallagher Retail Park Junction. A small section of the A4019 will be realigned to the west of the junction.

1.2. Purpose of this Document

1.2.1. This document is a Statement of Common Ground (SoCG) between GCC (the Applicant) and the Environment Agency (EA) in relation to the M5 Junction 10 Improvements Scheme.

1.2.2. The document identifies the following between the parties:

- A record of key consultation / correspondence.
- Matters which have been agreed; and
- Matters currently outstanding (subject to negotiation or not agreed).

1.2.3. The matters which are referenced in this document are that which are considered to be of material difference. Other lesser matters, such as those that concern amendments to supporting documents, will be reported on in the Consultation Report or addressed in the Environmental Statement (ES), submitted as part of the DCO application.

1.2.4. The SoCG will continue to evolve as the application for development consent progresses through the pre-application and Examination stages.

1.3. Structure of Statements of Common Ground

1.3.1. The SoCG has been structured in a generally consistent form and sets out the matters which are agreed, the matters subject to further discussion and those matters which are not agreed. Each SoCG has been tailored according to the approach agreed with the interested party concerned.

1.3.2. Each SoCG has the following structure:

- Section 1: Introduces the SoCG and provides a description of its purpose;
- Section 2: Outlines the engagement that has taken place with the interested party; and
- Section 3: Sets out any issues that have arisen, reporting on the status of each issue, i.e., whether it is agreed, still under discussion or not agreed, and any remaining actions.

1.3.3. Where relevant, documents that are referenced in the SoCG but do not form part of the application are available to the Examining Authority (ExA) upon request.

1.3.4. This SoCG is a correct reflection of the position of both parties at the pre-application stage.

1.3.5. It is acknowledged that the views and opinions of both parties may change over time and as such this SoCG will continue to evolve as the application for development consent progresses through the Examination Stage.

2. Consultation

2.1. The Role of GCC

2.1.1. In this SoCG, GCC is the Applicant for the M5 Junction 10 Improvements Scheme and this is separate and independent from the other functions and statutory duties carried out by the Council. As Applicant, GCC are promoting and delivering the Scheme with support of the rest of the Council, other Local Planning Authorities, National Highways and Homes England. This is to be recorded in separate SoCGs with the other parties.

2.2. The Role of the EA

2.2.1. The EA is a non-departmental public body sponsored by DEFRA with responsibilities relating to the protection and enhancement of the environment in England. The EA decides if relevant environmental permits and other consents and licences should be issued and, if so, what conditions should be applied. The EA also monitors compliance with the permit / licence conditions and takes enforcement action if appropriate.

2.2.2. The EA is a prescribed consultee as defined under section 42(1)(a) of the Planning Act 2008 (the Act).

2.3. Summary of Consultation

2.3.1. GCC has been in consultation with the EA during the development of the Scheme's design, including the optioneering process. The parties have continued communicating throughout the progression of the Scheme.

2.3.2. The engagement outlines in Table 2-1 covers formal consultation with the EA and engagement which pertains to matters raised in this SoCG. Other exchanges, such as requests for information or clarification points are not detailed below but are available on request.

2.3.3. The consultation with the EA since the Preferred Route announcement on 16th June 2021 is set out in Table 2-1 below.

Table 2-1 - Consultation with EA

Date	Method	Matters Discussed
27.06.2021	Meeting (via Teams)	The preferred route option was discussed along with the potential impacts and appropriate mitigation in relation to the WFD assessment.
12.07.2021	Email	Atkins Engineer inquired advice from the EA on the level for level storage and shared a memo outlining the level for level storage through the system.
06.12.2021	Email	Consultation documents were sent to the EA for comment.
15.02.2022	Email	Representation from the EA was received.
05.04.2022	Email	EA provided comments on the baseline model.
12.05.2022	Email	Atkins sent a letter responding to comments raised by the EA at the statutory consultation.

Date	Method	Matters Discussed
13.01.2023	Meeting (via Teams)	Meeting with the EA to communicate progress since the statutory consultation and progress with the SoCG.
02.02.2023	Email	Atkins sent an updated copy of document (GCCM5J10-ATK-LDC-ZZ-RP-LP-000005) SoCG for comment. No response has been received from the EA.
16.05.2023	Email	As part of the Further Targeted Consultation, consultation materials were sent to EA comment. The consultation materials were sent again on 26.06.2023 by request for comment.

3. Topics covered in this SoCG

3.1.1. The following table is a summary of the topics which are considered within this SoCG.

Table 3-1 - Summary of topics considered within this SoCG

Overarching topic	Topic Number	Topic
Background	1.	Principle of Development
	2.	Statutory Consultation
Relevant ES Chapter	3.	Assessment of Alternatives
	4.	Environmental Impact Assessment Methodology
	5.	Air Quality
	6.	Noise and Vibration
	7.	Biodiversity
	8.	Road Drainage and the Water Environment
	9.	Landscape and Visual
	10.	Geology and Soils
	11.	Cultural Heritage
	12.	Materials and Waste
	13.	Population and Human Health
	14.	Climate
	15.	Assessment of Cumulative Effects
Other Topics	16.	Engineering Design
	17.	Draft Development Consent Order
	18.	Land
	19.	Environmental Management Plan
	20.	Construction Traffic Management Plan

4. Matters Agreed

4.1.1. Table 4-1 shows those matters which have been agreed, including the matter reference number, and the date and method by which it was agreed.

Table 4-1 - Matters agreed between the Applicant and EA

Matter Reference number	Position	Date and method of agreement
1. Principle of Development		
2. Statutory Consultation		
3. Assessment of Alternatives		
4. Environmental Impact Assessment Methodology		
5. Air Quality		
6. Noise and Vibration		
7. Biodiversity		
8. Road Drainage and the Water Environment		
9. Landscape and Visual		
10. Geology and Soils		
11. Cultural Heritage		
12. Materials and Waste		
13. Population and Human Health		

Matter Reference number	Position	Date and method of agreement
14. Climate		
15. Assessment of Cumulative Effects		
16. Engineering Design		
17. Draft Development Consent Order		
18. Land		
19. Environmental Management Plan		
20. Construction Traffic Management Plan		

5. Matters Outstanding

5.1. Principal matters outstanding

5.1.1. The principal matters outstanding between Applicant and Joint Councils are:

5.2. Matters outstanding

Table 5-1 - Matters Outstanding

Matters Reference Number	Position of Interested Party	Response	Date of the last position
1. Principle of Development			
1.1.	Within section 4.3.2 the scheme, has been defined as “essential infrastructure”. Whilst we consider that this is appropriate to the improvement works to the motorway junction and A4019 link, it could be considered that the West Cheltenham Link Road (the Link Road) is proposed to support future development only, which would fall outside of this definition. We would welcome the relevant Planning Authorities views on this matter in respect to future planning requirements.	The various elements of the scheme make up a single project, either as part of the main alignment or as associated development. Any works identified as associated development, linked to a DCO, will be treated in the same way as the main DCO during the examination process. In the case of the M5 Junction 10 scheme, the three elements of the road improvements (Junction 10, A4019 and the link road) are all linked and dependent on each other and should be considered as part of the main DCO. Therefore, for the purposes of the DCO each element of the work, including:	12.05.2022

Matters Reference Number	Position of Interested Party	Response	Date of the last position
		• Formation of new or improved vehicular or pedestrian access (work sites etc), whether temporary or permanent • Alteration or construction of roads, footpaths and bridleways • Diversion or realignment of watercourses • Construction of new road or foot bridges, and works to reconstruct, alter or replace existing ones • Highway route/junction improvements (which may provide some benefit to third-party network users as well as users of the principal development) • Relocation of apparatus of statutory undertakers' equipment (mains, sewers, drains, pipes, cables, pylons etc) • Working sites, site offices and laydown areas • Settlement lagoons and surface water balancing facilities For the reasons set out above we are treating the entire scheme as essential infrastructure as the full scheme makes up a single DCO and is required to enable the identified growth in the area.	
2. Consultation			
3. Assessment of Alternatives			

Matters Reference Number	Position of Interested Party	Response	Date of the last position
4. Environmental Impact Assessment Methodology			
4.1.	Water Framework Directive (WFD) We have concerns regarding the cited guidance (section 8.5.9 and elsewhere) presented in the DMRB LA 113. Whilst Q95flow is an indicator of the likely importance of a watercourse and being Main River can be a surrogate for size and importance it is not necessarily the case that being an ordinary watercourse means it is of less importance. In this instance there is a correlation but in many parts of the area and County, and the country as a whole, ordinary watercourses can be of as high or high importance hydromorphologically and ecologically as main river. Main River being a function of flood risk and serving only to clarify where the EA has permissive powers to maintain watercourses for flood risk management purposes. Similarly, the WFD designation of a stretch of watercourse does not mean that that is the only reach or part of the catchment that is relevant for consideration in a WFD assessment but is a proxy, largely for monitoring	We acknowledge the potential limitations of the guidance in this context, however LA 113 is part of the overall DMRB guidance and therefore has been applied appropriately. Further clarification and assessment will be undertaken as part the ES/WFD assessment and discussed further as part of the Statement of Common Ground.(12.05.2022) Additional explanation has been added to the ES to outline that, although there are limitations to the DMRB LA113 method, in this instance, the method is appropriate and accurately identified importance. (13.01.2023)	

Matters Reference Number	Position of Interested Party	Response	Date of the last position
	and reporting purposes for the other controlled waters in the waterbody or catchment.		
5. Air Quality			
5.1.			
6. Noise and Vibration			
6.1.			
7. Biodiversity			
7.1.	The Biodiversity chapter of the PEIR provides a thorough and detailed initial account of the main environmental issues. However whilst some effects have been avoided, reduced or mitigated the range of mitigation measures considered to offset the identified environmental effects on the aquatic environment have been underestimated.	Additional detail will be added to the mitigation strategy as part of the landscape plans, WFD assessment and ES. It is our understanding that the mitigation proposed as part of the PEIR is sufficient and proportionate to the impacts of the Scheme and includes a wide range of measures. Such measures include:	

Matters Reference Number	Position of Interested Party	Response	Date of the last position
		• A clear span structure over the River Chelt. • Provision of embedded culvert inverts maintaining existing channel gradient to avoid erosion and minimising culvert length. • Application of best practice pollution prevention measures and silt management/control measures. • Avoidance of ecologically sensitive periods for fish species. • Reinstatement of riparian vegetation and habitat following construction and enhancing the physical form of the drainage ditches to improve habitat condition. • A drainage strategy to manage volumes and quality of surface water runoff. In addition, following early consultation with the EA the redline boundary was extended beyond normal best practice to include 100m upstream and downstream of crossings on the River Chelt. This provided sufficient space for measures including bank rehabilitation, riparian improvements and enhancements to the in-channel morphology.(12.05.2022) The design has since developed and there is a requirement to look into inclusion of bank protection under the single span structure due to potential for erosion and risk to the crossing. In the draft ES, the worst case scenario has been assessed which includes rip-rap bank protection. Further investigation is required at the detailed design stage to determine the need for bank protection and the requirements of that bank protection. Endeavours will be made to soften this bank protection to green infrastructure. (13.01.2023)	

Matters Reference Number	Position of Interested Party	Response	Date of the last position
7.2.	West Cheltenham Link Road River Chelt Bridge A single span structure is the preferred type of crossing to minimise impact on the water environment if designed appropriately. We welcome the clear span structure with no mid channel features with reduced interactions during the operational phase with the river bed and banks. However there are conflicting descriptions of the geometry of the bridge in relation to the river. Whilst there will not be the direct permanent habitat loss and significant habitat severance associated with the culverting of the other watercourses there is potential for changes to riparian and associated flood plain quality and as well as water body hydromorphology leading to changes in river processes and habitats upstream and downstream.	The details presented regarding the geometry of the River Chelt bridge have been reviewed and a consistent set of details will be presented as part of the ES. The proposed bridge will have a span of 24.8m to allow for a clear crossing of River Chelt with a minimum abutment offset from top of bank of 4m. The offset will ensure minimum disturbance during construction and provide a wildlife corridor and general through access in the permanent condition. The total bridge deck width is 20.8m to accommodate the single carriageway road and separated active travel route. The minimum deck soffit clearance to high ground level is 2.8m at 31.04m AOD, with the highest solid feature (top of parapet upstand) proposed at 32.82m AOD. At the next stage of the assessment, additional detail will be added to the landscape plans, ES and WFD assessment to outline plans to create a two stage channel to allow for more natural flooding processes. We have incorporated this into the landscape plans which will allow for riparian vegetation enhancements. (12.05.2022). It is acknowledged that based on indicative cross sections (drawing 12), the EA have requested greater variety in bank top to bank top width to create a more geomorphologically interesting channel. At this time the drawings shared are concept plans and further work will be incorporated at that point to support detailed design. (13.01.2023)	
7.3.	Section 5.4.39. refers to advice from the EA indicating that a 4m easement on the south bank and a 2m easement on the north bank would be acceptable for their regulatory requirements. However this would represent a	The proposed bridge will have a clear span of 24.8m to allow for a clear crossing of River Chelt with a minimum abutment offset from top of bank of 4m. The offset of the structure will provide a wildlife corridor and general through access in the permanent condition. The total bridge deck width is 20.8m to accommodate the single carriageway road and separated active travel route. The minimum	

Matters Reference Number	Position of Interested Party	Response	Date of the last position
	significant compromise ecologically and geomorphological and may necessitate bank protection. Whilst a reduction of easement width to below 8m to help reduce the span, supported by a small layby to allow operatives to pull off the road to safely access may be necessary, the operating principal is the wider it can be the better for the environment.	deck soffit clearance to high ground level is 2.8m at 31.04m AOD, with the highest solid feature (top of parapet upstand) proposed at 32.82m AOD. (12.05.2022) See earlier comment regarding change in design in formation to now include bank protection. (13.01.2023)	
7.4.	Section 7.6.16. Wildlife crossings makes reference to otter ledges to be installed on both sides of the River Chelt bridge, along the Link Road. Are these attached to the structure above the height of the flood levels in addition to the natural bank? As (see 5.4.41) maintaining a bankside strip will additionally act as a mammal easement below the Link Road in most river level conditions. As part of any additional design measures higher level mammal passage may be required below the roadway. This will be assessed following the completion of the flood modelling work.	The requirement for otter ledges under the River Chelt bridge has been reviewed since the production of the PEIR. As the land either side of the River Chelt underneath the bridge are not expected to flood (these areas are modelled to remain dry in the 100yr flood event (with allowance for climate change)), then otter ledges in this location are considered as no longer required and have been removed from the current design.(12.05.2022) An underpass has been included in the design to the south of the River Chelt, within 50m of the watercourse, designed specifically for otters but with the capacity to be used by other species. This is located above possible flood levels. (13.01.2023)	
7.5.	We strongly support landscape plans and other embedded measures designed to encourage use of these	Numerous underpasses/features suitable for use by otters have been incorporated into the design along the Link Road, and otter proof fencing will prevent access to the carriageway. The underpass	

Matters Reference Number	Position of Interested Party	Response	Date of the last position
	features and prevent otters from accessing the carriageway. We advocate an acknowledgement that otters also travel overland particularly along ditches and hedgerows and the increase in complexity and hazards as a result of the scheme and associated developments leads to some residual risk.	beneath the A4019 will provide a safe route for otters and other species to cross this road and the otter ledge that will be retrofitted to the existing M5 culvert over the River Chelt will provide safe passage to otters at times of flood. Combined, these measures will ensure that otters can safely move through the landscape. (13.01.2023)	
7.6.	Enhancements to aquatic habitats Section 7.7.58. acknowledges there are potential opportunities for enhancements to aquatic features across the Scheme, which will contribute to any biodiversity net gain targets and may contribute to the SNAs. We would welcome more detail on this aspect.	Additional detail will be added to the mitigation strategy as part of the landscape plans, WFD assessment and ES. This detail will also be shared with the EA as the design develops. (12.05.2022) There are plans in place to develop a wetland area which has now been included as part of the submission. Aquatic and terrestrial ecologists, hydro geologists and flood risk experts have collaborated to determine the conceptualisation of this wetland area (further details are outlined below). (13.01.2023)	
7.7.	Flood storage basin We note (5.4.37) that the storage design was proven in the hydraulic model and it includes for nominal 1 in 3 side slopes around the wetland, It is important that this don't translate into final design and there is stronger commitment to optimise the biodiversity value of this feature with organic planform shape that includes bays, inlets and islands, so promoting	This will be considered through the development of the design and reported in the ES. An area of farmland to the south east of the motorway junction (referred to as the flood storage area) will be transformed into an area supporting wetland habitats, scrub and species-rich grassland surrounded by woodland planting, whilst also fulfilling its role as a flood storage area. The area will incorporate a permanently wet area, plus ephemeral pools. A channel will link the outfall of the attenuation basin to the Piffs Elm culvert which will regularly refresh the permanent waterbody to avoid stagnation. Although the wetland is incorporated as a 'mitigation measure' under the DMRB methodology, tests have been undertaken that	

Matters Reference Number	Position of Interested Party	Response	Date of the last position
	a future wetland area with significant excavation below existing ground level proximity of floodplain compensation area to the road junction will impact on its attractiveness to some wildlife.	show water quality is sufficiently mitigated prior to entering the wetland due to swales, ditches and basins prior to out falling. Depressions have been designed to include variations in bed topography, with shallow bank slopes to create drawdown zones and marginal shelves. The approach will be to lightly seed the central area with wetland grass species, and plant small amounts of scattered scrub and suitable marginal plants, allowing a degree of natural regeneration. The area will be monitored before a management plan is produced to suit the developing conditions and habitats. (13.01.2023)	
7.8.	Section 7.7.59. states that opportunities to enhance and restore sections of the River Chelt may be available within the redline boundary. Our assessment is that an element of river restoration is required to mitigate the impacts of the scheme and on top of that improvements to watercourses and riparian condition to align with WFD status objectives are essential.	Additional detail will be added to the mitigation strategy as part of the landscape plans, WFD assessment and ES. It is our understanding that the area assigned for mitigation measures (100m upstream and downstream of crossings on the River Chelt) will be sufficient to align with WFD legislation. This area will include bank rehabilitation, riparian improvements, and enhancements to the in-channel morphology. These measures have been incorporated into the BNG assessment which has determined >10% BNG for the Rivers and Streams assessment. If the Biodiversity Net Gain (BNG) target of 10% cannot be met within this reach, opportunities will be investigated off site. However, it is not anticipated that a net gain would drop below 10%.(13.01.2023)	
7.9.	Elsewhere there is reference to improving in-channel and riparian habitat diversity, bank re-profiling, riparian planting and removal of invasive species (namely Himalayan balsam). We note that the redline boundary has been extended 100m	Following early consultation with the EA the redline boundary was extended beyond normal best practice. This provided sufficient space for meaningful mitigation measures to be applied, including bank rehabilitation, riparian improvements and enhancements to the in-channel morphology. Further extensions to the redline boundary would require further justification and clarifications from the regulator.	

Matters Reference Number	Position of Interested Party	Response	Date of the last position
	upstream and downstream of the two River Chelt crossings to allow for enhancements along these sections of channel. We would recommend an extension to this boundary particularly with respect to net gain	Further extension of the redline boundary is not expected to be required to achieve our biodiversity net gain(12.05.2022)With the current Scheme design and mitigation measures, the Scheme can achieve a net gain of >10% for Rivers and Streams. This is subject to change at detailed design (i.e., confirmation of the bank protection design on the River Chelt); however, it is not anticipated that a net gain would drop below 10%. (13.01.2023) The biodiversity chapter of the ES discusses preventing the spread of Himalayan balsam to ensure compliance with legislation. All recommendations are contained within the REAC. (13.01.2023)	
7.10.	Severn Estuary SAC/SPA/Ramsar Although the Severn Estuary SPA, SAC and Ramsar site boundary is 23km south-west of the Scheme it is important to capture the distance downstream to confluence with the tidal Severn River Chelt, Leigh Brook, and River Swilgate) running from east to west, before draining into the River Severn (at least 7.5km downstream of the Scheme).	This has been captured in paragraph 7.5.4 as well as in the HRA (PEIR Appendix 7.13) The HRA will be submitted with the ES as appendices (7.13 and 7.14) to the biodiversity chapter.	
7.11.	Fish The importance valuation of the River Chelt in section 7.5.145 does not refer to the native brown trout that reside in the river. The WFD assessment makes reference to EA fish monitoring	The Biodiversity chapter within the ES will ensure that reference is made to these fish species. In addition, consistency between all chapters will be reviewed and corrected as necessary. It is considered that, even with the consideration of these additional species, the valuation of the River Chelt would remain at County importance. (12.05.2022)	

	sites which have been surveyed within the last 10 years where bullhead, three-spined stickleback, brown trout and European eel were found and acknowledges that the species present are considered to be important. The European eel being a Critically Endangered species on the International Union for Conservation of Nature (IUCN) Red List of Threatened Species (2010), species of Principal Importance under section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, and a UK Biodiversity Action Plan (BAP; 2007) priority fish species. Brown trout is a species of principal importance under section 41 of the NERC Act 2006 and a UK BAP (2007) priority fish species. Bullhead is a European Commission Habitats Directive Annex II non-priority species 4 (in section 4.1.35). Additionally, in 2014 during a previous survey, in section 4.1.35. Atlantic salmon are mentioned as being recorded at Site ID 52484. Atlantic salmon is a European Commission Habitats Directive Annex II and V species, a species of Principal Importance under section 41 of the NERC Act 2006 and a UK BAP (2007) priority fish species. Salmon Par have also been caught during fish rescues downstream at Norton prior to a weir removal and subsequent to the		

Matters Reference Number	Position of Interested Party	Response	Date of the last position
	removal are expected to be able to migrate upstream.		
7.12.	Timing with respect to fish The summary document highlights that construction of the River Chelt bridge will avoid ecologically sensitive periods for fish species e.g. migratory/spawning periods, in particular for European eel. This also needs to take into account the salmonid spawning season "	Key ecologically sensitive periods will be added to the Register of Environmental Actions and Commitments (REAC) which will be secured through the DCO. This includes where possible, works most likely to cause disturbance to migratory species in the River Chelt (i.e., the construction of the new bridge crossing and installation of bank protection associated with the crossing) will be timed to occur outside of the key ecologically sensitive periods for migratory fish species. Due to the range of species potentially present, it may not be practical to avoid all sensitive periods. However, based on the fisheries habitat provision at the crossing and confirmed species presence it is recommended that the migratory and/or spawning periods for European eel, river lamprey and sea/brown trout should be the focus of the timing consideration. It is therefore recommended that February to July and October to November are avoided as they are the key migratory periods for European eel, which also avoids the spawning period for lamprey (March to April), sea trout and Atlantic salmon (peaks in October to November). These periods will be confirmed through ongoing consultation with Natural England and the Environment Agency. Where works during migratory periods are unavoidable, no night-time (taken to be between 30 minutes prior to sunset until 30 minutes following sunrise) vibration work will be undertaken. If night working is essential, minimal and directional lighting will be used.	

Matters Reference Number	Position of Interested Party	Response	Date of the last position
		The proposed fish mitigation has been forwarded to the EA on 13.01.2023 for information. (13.01.2023).	
7.13.	Existing Chelt Culvert under the M5 We strongly welcome inclusion of our suggestion to retrofit an otter ledge within the existing River Chelt culvert beneath the M5, on the opposite side of the footbridge which we consider essential mitigation. We note that otters currently use the footbridge, but camera footage and observations have identified that it floods. Retro-fitting an otter ledge will provide safe passage during times of flood.	An otter ledge is being included in the design in this location and will be reported in the ES. (13.01.2023)	
7.14.	Other watercourses There are several references to the drainage ditches to be relocated due to encroachment from road widening and embankment and the current plan to replace with like for like habitats. Even though some of these watercourses will not be in water all year it is best practice to replace with an improved physical habitat e.g. with variation in bank slope and improved sinuosity. The details of these replacements in the PEIR refer to	Where possible within the Scheme boundary, the physical form of the drainage ditches will be enhanced, including forming some sinuosity and variation in profile. However, these will be largely dry/ephemeral and vegetation will likely dominate, therefore appropriate seeding will be applied. (12.05.2022) Sinuosity has been applied to a small number of ditches within the drainage strategy where space allows. (13.01.2023).	

Matters Reference Number	Position of Interested Party	Response	Date of the last position
	them being sown with a wet grassland seed mix of appropriate provenance and to represent geographical context however this will be much more meaningful and significant if the physical habitat is enhanced.		
7.15.	The description of Morphological enhancements in the WFD chapter (Scheme wide) 6.3.7. refers Watercourse channels and ditches adjacent to roads have often been modified by previous road building or drainage schemes. Hence, in some instances, the realignment of a channel can present an opportunity to restore channels to a more natural state of ecological function in line with WFD objectives. 6.3.8. As there will be extensive lengths of ditches created as part of the Drainage and Environment Plans, there is potential for enhancement of these features to create a biologically diverse habitat. This will help the attainment of Good through the preservation and restoration of habitats and enhancements to ecology as part of the mitigation measures set out by the EA. This potential does not yet appear	Additional detail will be added to the mitigation strategy as part of the landscape plans, WFD assessment and ES. The extent and nature of the plans will be discussed further as part of the Statement of Common Ground.(12.05.2022)	

Matters Reference Number	Position of Interested Party	Response	Date of the last position
	to have been realised in the current design iterations.		
8. Road Drainage and the Water Environment			
8.1.	As highlighted both embedded mitigations, as highlighted in paragraph 8.6.29, and any essential (additional) mitigation will need to be based on a sound evidence base. This would take the form of a detailed hydraulic model to support the design works.	The Scheme modelling report and hydraulic model has been issued to the EA (March 2022). These items support the Flood Risk Assessment (FRA) and Preliminary Environmental Impact Report (PEIR) The model has been reviewed by the EA who has approved its use. However, the EA has requested the detail of the storage before it can formally agree to the proposed mitigation for flood risk. It was also requested that any updates to the model should be noted in the appendices of the modelling report (13.01.2023)	
8.2.	If the sequential test is deemed to have been passed then, as the link road will cross all flood zone designations, it is felt that both parts of the exception test would also need to be passed as set out in paragraphs 4.3.9 and 4.3.10.	Agreed that both parts of the exception test need to be met, being wider sustainability benefits to the community; and the scheme being safe over its lifetime. The FRA covers the latter point. The first point (wider benefits to the community) is described within the Scheme objectives and the details on the purpose of the Scheme (Chapter 1 of the PEIR). (12.05.2022)	
8.3.	If part one of the test is felt to outweigh the presence of a vulnerability use not defined as essential infrastructure which is partially located in Flood Zone 3b, as this would be unavoidable as a result of the sequential test decision,	If the Scheme is reclassified as being Highly Vulnerable, then its presence in Flood Zone 3 is not compatible. However, by virtue of its location and the sequential test, this comment indicates that the Exception Test would still need to be passed, which is in line with our expectations too. (12.05.2022)	

Matters Reference Number	Position of Interested Party	Response	Date of the last position
	then the exception test must be passed."		
8.4.	As set out in Chapter 5 managing flood risk should be based on the hierarchy set out within table 5.1, with the emphasis being on Avoidance/Prevention through appropriate design and location rather than relying on significant mitigation or other interventional measures to provide a truly sustainable scheme. The failure to follow this way of delivering new development is highlighted within paragraph 5.19 of the report.	The approach taken has been to avoid areas of predicted flooding where technically possible. Through the embedded mitigation, built by default into the Scheme, detrimental impacts to flood risk are avoided. As the inclusion of flood culverts and flood storage/attenuation was part of the initial design, these control measures in effect prevent adverse effects on flood risk. Refers to Para 5.19 as being a factual admission of worst case impacts. The Scheme modelling report (issued in March 2022) includes a test on the impacts of the Scheme without some of the embedded mitigation to further evidence the need for mitigation. (12.05.2022)	
8.5.	Additionally, the principles set out in section 5.4.3 are also crucial in minimising impacts during the construction phase and need to be considered fully prior to final development boundaries being set.	The Buildability Report provides some further information on how this Scheme might be constructed. Requirements to the Contractor will be set out in the REAC and the Environmental Management Plan (EMP) 1st iteration, that will be produced as part of the Environmental Statement (ES) and secured through the DCO. (12.05.2022)	
8.6.	However, we would highlight the need to fully understand the groundwater regime in the area of the wetland compensation scheme, to avoid this area being full prior to out of bank	Ground investigations (GI) in the area of the flood storage have been undertaken. The factual and interpretative information demonstrate that the ground is highly impermeable and will not be subject to significant groundwater ingress. However, the GI did find isolated and localised lenses of gravels near the southern boundary	

Matters Reference Number	Position of Interested Party	Response	Date of the last position
	fluvial flows reaching the feature meaning the proposals would not meet the design concepts outlined in the PIER or FRA, this is deemed a potentially significant issue to providing appropriate mitigation.	of the proposed storage area. There may be some intrusion, or infiltration, through these lenses through the excavated edge of the flood storage area. This has been calculated to be of negligible flow which would pass straight through the storage area and out through the Piffs Elm culvert. We do not perceive any loss of the available storage volume through accumulation of groundwater. (13.01.2023) As such, the flood storage will remain available for overland flow and fluvial storage.	
8.7.	Any solution for the crossing of the Link Road through the Chelt flood plain as highlighted in sections 5.4.42 to 5.4.48 should take account of the extents of Flood Zone 3b, where an open viaduct structure should be considered to meet the avoidance principles set out in table 5.1.	The Link Road structures are described in the Scheme modelling report (issued March 2022). Testing has been undertaken to evaluate the size of conveyance structures and optimise the balance between a zero afflux structure and something smaller and its adverse impacts upstream. This follows the hierarchy of flood risk management taking into account the wider social, environmental and economic factors in the design. Further testing was undertaken to establish the location of the floodplain crossing in relation to the overland flow paths.(12.05.2023)	
8.8.	Incidentally, there are some minor errors in the FRA with respect to description of the current flood alleviation measures in the Chelt for example Dowdeswell reservoir, which is managed by the EA as one of three flood storage areas on the Chelt.	The ownership and operation of the Dowdeswell Reservoir have now been updated in the FRA. Thank you for identifying this error.(12.05.2023)	
8.9.	At this point in time we would register our concern that, based on the stage of the project at present, we do not	Additional detail will be added to the mitigation strategy as part of the landscape plans, WFD assessment and ES. It is our understanding that the mitigation proposed as part of the PEIR is	

Matters Reference Number	Position of Interested Party	Response	Date of the last position
	consider it includes sufficient river and floodplain restoration in order to mitigate the impacts of the proposed development. As the Environmental Impact Assessment (EIA) of the Scheme progresses and detailed design ensues we are hopeful this will be rectified and realised, however the assessment as it stands does not appear to facilitate the necessary river and floodplain restoration we would expect to see	sufficient and proportionate to the impacts of the Scheme. Following early consultation with the EA the redline boundary was extended beyond normal best practice to include 100m upstream and downstream of crossings on the River Chelt. This provided sufficient space for meaningful enhancement measures to be applied, including bank rehabilitation, riparian improvements and enhancements to the in-channel morphology. (12.05.2022)	
8.10.	We agree with 6.2.6. of the WFD chapter where it states it will be designed and constructed in such a way as to minimise disruption to the river and riparian zone with abutments being set well back from the bank edge to allow the river to function naturally and to maintain a wildlife corridor along the banks. Where practically possible the bridge deck should run perpendicular to the watercourse (to reduce shading). Bed and bank protection should only be used where a real risk to life or critical infrastructure is apparent.	The layout of the new River Chelt Bridge is predominantly dictated by the proposed alignment of the Link Road, which crosses the river on a skew. A square (perpendicular) crossing was considered in the early stages but was found to only reduce the bridge span by around 1m, with greater negative impacts to the surrounding land due to reprofiling of the highway in order to achieve a square approach. There is a possibility that bank protection will be necessary to reduce the risk of erosion due to vegetation loss under the structure. This is being considered to determine requirements and outline if there are any alternate solutions. It is likely that the details of the bank protection will be determined at detailed design stage. (12.05.2022) The design has since developed and there is a requirement to look into inclusion of bank protection under the single span structure. In the draft ES, the worst-case scenario has been assessed which	

Matters Reference Number	Position of Interested Party	Response	Date of the last position
		includes rip-rap bank protection. Further investigation is required at the detailed design stage to determine the need for bank protection and the requirements of that bank protection. Endeavours will be made to soften this bank protection following further assessment. (13.01.2023)	
8.11.	The WFD assessment (section 4.3) assumes a clear span structure with a 25m deck width with abutments set back 5m from the river bank tops. Section 5.4.40. refers a 24 m wide span with the deck soffit set at least 600 mm above the predicted design flood level of 27.75 m AOD. The abutments will be set back from the river banks by 4m on the north and 8m on the south, permitting access under the bridge on both banks if required.	The following set of sizes will be used in the ES and the supporting documents (including the WFD assessment: The proposed bridge will have a span of 24.8m to allow for a clear crossing of River Chelt with a minimum abutment offset from top of bank of 4m. The offset will ensure minimum disturbance during construction and provide a wildlife corridor and general through access in the permanent condition. The total bridge deck width is 20.8m to accommodate the single carriageway road and separated active travel route. The minimum deck soffit clearance to high ground level is 2.8m at 31.04m Above Ordnance Datum (AOD), with the highest solid feature (top of parapet upstand) proposed at 32.82m AOD. (12.05.2022)	
8.12.	Additional mitigation will need to be included in the next stage of design to mitigate impacts on the water environment and reach compliance with WFD and other relevant planning policy.	Additional detail will be added to the mitigation strategy as part of the landscape plans, WFD assessment and ES. It is our understanding that the mitigation proposed as part of the Scheme is sufficient to be compliant with the WFD and other planning policy. (13.01.2023)	
8.13.	We maintain the view that it is not yet possible to scope out/prevent the future attainment of Good status. (Test B). The WFD requires that surface water discharges are managed so that	The Highways Agency Water Risk Assessment Tool (HAWRAT) (DMRB LA 113) has been used to determine whether the risk to the receiving surface water receptors water quality is acceptable and whether any surface water receptors require mitigation through three assessments:	

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	their impact on the receiving environment is mitigated. The objective is to protect the aquatic environment and control pollution from diffuse sources such as urban drainage – a key aspect that effectively precludes use of the traditional approach to drainage.	• Assessment of acute impacts from soluble pollutants. • Assessment of chronic impacts due to sediment related pollutants. • Compliance with Environmental Quality Standards (EQS) for dissolved copper and dissolved zinc. A pass for these three assessments demonstrates that the Scheme adequately mitigates against potential impacts on water quality and will therefore pass Test B. We acknowledge the EA's concerns regarding emergency cut-offs in the event of an incident on the highway. We can confirm that shutoff penstocks have been incorporated for each basin with the specific details of these being developed at detailed design stage. (13.01.2023)	
8.14.	Table 4-2 - Mitigation measures for the River Chelt - source to M5 water body makes reference to potential WFD mitigation measures which are all possible and necessary within and without the redline boundary. These include working with physical form and function (e.g. remove obsolete structures, re-engineer river, remove or soften hard banks, improve in-channel morph diversity, bank rehabilitation, re-opening culverts alter culvert channel bed and set-back embankments to restore floodplain connectivity and fish passes).	Additional detail will be added to the mitigation strategy as part of the landscape plans, WFD assessment and ES. It is our understanding that the mitigation proposed as part of the PEIR will be sufficient to be compliant with the WFD and other planning policy. The approach to implementation of mitigation measures will be proportionate to the impacts of the Scheme. (12.05.2022)	

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8.15.	The FRA chapter 5.1.7 makes reference to many of the River Chelt banks in this area being slightly raised above the local floodplain. In the context of flood risk during construction of the Scheme, that may impact on the works or third party receptors. Lowering of slightly raised levels in the river restoration zone should be factored into the model as a potential means of improving connectivity with the flood plain and bank enhancements	Enhancement measures along the River Chelt will include reprofiling of banks. However, the flood risk implications have been considered and bank levels will not be lowered where there is any potential for increased flood risk.(12.05.2022)	

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8.16.	Section 7.5.119. refers to the existing M5 crossing on the River Chelt being assumed to be embedded due to the presence of gravel and silt substrates through the culvert). Elsewhere there is reference to the potential need to clear this material. We request that model runs including blockage runs include this sediment and high channel roughness to ascertain if the natural substrate can be retained in the long term to maintain habitat continuity and quality and reduce or remove unsustainable ongoing management and disposal of material to a minimum.	The flood modelling undertaken for this Scheme is not based on the assumption that sediment has been removed; we agree that sediment and natural substrate should be kept in place.(12.05.2022)	
8.17.	The EA highlighted that the emergency procedure for pollutions, and spills need to be considered in the EMP.	We can confirm that the procedures for containing spillage has been outlined in the EMP 1st iteration and will be developed further by the principle contractor in the 2nd iteration. The Register of Environmental Actions and Commitments (REAC) will also draw down all mitigations and securing mechanisms within the DCO. (13.01.2023).	

Matters Reference Number	Position of Interested Party	Response	Date of the last position
8.18.	The EA have requested information on the legislation which the project is looking to disapply.	At this stage, we have not included any disapplication in relation to the Environmental Permitting Regulations or Water Resources Act for which the EA are the consenting body. However, we are undergoing a process to determine if these should be included. There is potential we would look to disapply the Flood risk activity permits under the Environmental Permitting (England and Wales) Regulations 2016 as amended, for which the EA is the relevant consenting body. However, this would require consent from the EA and agreement on the inclusion of a set of Protective Provisions. If the EA could provide their position on this, we can determine if this can be included in the DCO submission. It is our understanding that the EA would not consent to disapplication of either the abstraction licensing regime or the discharge consenting regime. (In previous times this may have done for the abstraction licensing regime for certain projects, however the legislation has since changed.) Could the EA also confirm their position on this.	
9. Landscape and Visual			
9.1.			
10. Geology and Soils			

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10.1.			
11. Cultural Heritage			
11.1.			
12. Materials and Waste			
12.1.			
13. Population and Human Health			
13.1.			
14. Climate			
14.1.			
15. Assessment of Cumulative Effects			
15.1.			
16. Engineering Design			

Matters Reference Number	Position of Interested Party	Response	Date of the last position
16.1.			
17. Draft Development Consent Order			
17.1.			
18. Land			
18.1.			
19. Environmental Management Plan			

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19.1.	The EA would also require details such as the location of work compounds, location of temporary spoil storage areas, details of the phasing works and a flood warning/evacuation procedure to all be included with the supporting details for any planning application. This may avoid the need for both parties to duplicate the same work to obtain separate permissions under the Environmental Permitting Regulations 2016.	Further details will be provided as part of the Environmental Statement. The item on flood warning/evacuation procedure will be covered at a high level within the EMP 1st iteration which will be produced as part of the ES. However, it is expected that the Contractor will address this specifically as part of their activities and provide more detail as part of the DCO requirements discharge process. (12.05.2022)	
20. Construction Traffic Management Plan			
20.1.			

Appendices

Appendix A. Matters to be determined

A.1.1. There are some matters which the position of the EA is pending upon publication of the full suite of DCO application documents, in particular those relating to the Environmental Statement (ES).

A.1.2. The Applicant will continue to review matters with the EA during the examination of the DCO application and discussions will be aided by the EA being able to review the full suite of DCO application documents on the National Infrastructure Planning website (at the point of submission).

Table A-1 – Matters to be determined between the Applicant and EA

Ref	Matter	Position	Date of the latest position

ATKINS
Member of the SNC-Lavalin Group

5th Floor, Block 5
Shire Hall
Bearland
Gloucester
GL1 2TH

Tel: +44 (0) 8000 514 514