

**Date:** 18 June 2024

Dear Sir/Madam

## **The M5 Junction 10 Improvements scheme: Development Consent Order: Relevant representation – Deadline 1**

Comments on Relevant Representations (RR) updated information.  
Further to our formal response on the Relevant Representation (RR) dated 22 March 2024. We have now reviewed the additional submissions which were uploaded to the PINS website dated 23 April 2024 and have the following comments.

### **1.0 The Environment Agency's Role**

- 1.1 The Environment Agency is an executive non-departmental public body, established under the Environment Act 1995.
- 1.2 We were established to bring together responsibilities for protecting and improving the environment and to contribute to sustainable development. We take an integrated approach in which we consider all elements of the environment when we plan and carry out our work. This allows us to advise on the best environmental options and solutions, taking into account the different impacts on water, land, air, resources and energy.
- 1.3 We help prevent hundreds of millions of pounds worth of damage from flooding. Our work helps to support a greener economy by protecting and improving the natural environment for beneficial uses, working with businesses to reduce waste and save money, and helping to ensure that the UK economy is ready to cope with climate change. We will facilitate, as appropriate, the development of low carbon sources of energy ensuring people and the environment are properly protected.
- 1.4 We have three main roles:
  - We are an **environmental regulator** – we take a risk-based approach and target our effort to maintain and improve environmental standards and to minimise unnecessary burdens on businesses. We issue a range of permits and consents.
  - We are an **environmental operator** – we are a national organisation that operates locally. We work with people and communities across England to protect and improve the environment in an integrated way. We provide a vital incident response capability.
  - We are an **environmental adviser** – we compile and assess the best available evidence and use this to report on the state of the environment. We use our own monitoring information and that of others to inform this activity. We provide technical information and advice to national and local governments to support their roles in policy and decision-making.
- 1.5 The Environment Agency takes action to conserve and secure the proper use of water resources, preserve and improve the quality of rivers, estuaries and coastal waters and groundwaters through pollution control powers and regulating discharge permits.

- 1.6 We have regulatory powers in respect of waste management and remediation of contaminated land designated as special sites. We also encourage the remediation of land contamination through the planning process.
- 1.7 The Environment Agency is the principal flood risk management operating authority. It has the power (but not the legal obligation) to manage flood risk from designated main rivers and the sea. The Environment Agency is also responsible for increasing public awareness of flood risk, flood forecasting and warning and has a general supervisory duty for flood risk management. We also have a strategic overview role for all flood and coastal erosion risk management.

## 2.0 Scope of these Representations

- 2.1 These Relevant Representations contain an overview of the project issues, which fall within our remit. They are given without prejudice to any future detailed representations that we may make throughout the examination process. We may also have further representations to make if supplementary information becomes available in relation to the project.
- 2.2 We have reviewed the draft Development Consent Order (DCO) application, Environmental Impact Assessment (EIA) and supporting documents submitted as part of the above-mentioned application, following notification of its acceptance for Examination on 16 January 2024. Our main key outstanding issues of concern are listed in tables below under each subject with general comments underneath the tables that need to be addressed before the DCO is granted.

## 3.0 Draft Development Consent Order

### 3.1 Part 1, Preliminary, Interpretation

Paragraph 2 - We would like this section amended as highlighted below to provide us with clarity that the wording “commence” does not exclude any ground works or remedial works which may have an impact on ground conditions.

**2, - “commence” means beginning to carry out any material operation (as defined in section 56(4) of the 1990 Act) forming part of the authorised development *other than operations* consisting of archaeological investigations, *investigations for the purpose of assessing ground conditions, remedial work in respect of any contamination or other adverse ground conditions*, ecological surveys and pre-construction ecological mitigation works, erection of any temporary means of enclosure, set up works associated with construction compounds such as soil-stripping, stockpiling, and the provision of access points, and the temporary display of site notices or advertisements, and “commencement” is to be construed accordingly;**

We would want to see that the interpretation of commence ***does not exclude investigations for the purpose of assessing ground conditions, remedial work in respect of any contamination or other adverse ground conditions.*** This will provide clarity on Schedule 2, Part 8, Requirements (Land and groundwater contamination).

### 3.2 Schedule 2, Part 1, Requirements

*Requirement 3: Environmental Management Plan* – The Environment Agency requests that it is added as a specific consultee to the discharge of this requirement so that it can advise on matters within its remit.

F(vi) Emergency Preparedness and Response Plan including Flood Management Plan and Severe Weather Plan – This is not within our remit. However, we would want to see something put in place from a flood risk perspective, this is technically for the Emergency Planners to sign off at the Local Authority.

### 3.3 Schedule 2, Part 8, Requirements

We concur with Land and groundwater contamination section that we should be consulted on any remedial works.

(5) We suggest you add the wording that is in bold - (5) *Remedial measures must be carried out **and their results submitted to the competent authority for approval in accordance with the scheme approved under subparagraph (4).***

### 3.4 Schedule 2, Part 11, Requirements

We would like to be consulted on the detailed design due to the environmental impacts.

### 3.5 Schedule 2, Part 13, Requirements

(3) The scheme must be fully implemented as approved and subsequently maintained **prior to the completion of the development.**

### 3.6 Schedule 2, Part 2, Procedure for the discharge of requirements

Paragraph 18 – We would like this paragraph amended. As a statutory consultee we would like to be included in the provision. ***“If consultation with a consultee is required, the relevant planning authority must issue the consultation to the consultee within five business days of receipt of the application and notify the undertaker in writing specifying any further information requested by the consultee within five business days of receipt of such a request.”***

## 4.0 Book of Reference

We can concur that the Environment Agency’s does not have any land interest that falls within the red boundary provided.

## 5.0 Key Issues – Biodiversity

5.1 Bank Erosion and loss of riparian habitat		
Chapter 7: Biodiversity	Issue	It is assumed that hard engineered bank protection will be required underneath the new bridge structure, due to an increased likelihood of bank erosion (caused in part by shading acting to remove bankside vegetation). At this stage, the details of the bank protection have not been determined but it has been assumed that the length will equal that of the width of the bridge deck and comprise of hard bank protection (e.g. rip-rap or non-biodegradable geotextile) as a worst case scenario.
Section/pages/table reference:  7.8.11 and 7.8.12.	Impact	This may cause permanent modification and potential localised loss of marginal lamprey ammocoete habitat.
	Solution	A bioengineered “green solution” would be used to transition from the grey bank protection to the natural banks up and downstream of the crossing. At the detailed design stage, further assessment and consultation with the Environment Agency is required to minimise and, where possible, exclude hard engineered or inappropriate bank protection and maximise habitat compensation.

5.2 Hard engineering and bank protection		
Environmental Master Plan (EMP)	Issue	The indicative cross-sections in drawing number GCCM5J10 ATK EWE ZZ_PO DR LW 000001 of the reaches up and downstream of the Link Road illustrate an asymmetrical channel with significant additional space for river processes, primarily as a result of lowering the inside bends, up stream of the Link Road in particular. The current iteration shows a relatively uniform bank top (bank full) width which has `smoothed out` to some extent the existing meandering form.
Section/pages/able reference: Indicative River Chelt Link Road River Cross-Sections GCCM5J10 ATK EWE ZZ_PO DR LW 000001	Impact	The Chelt in particular is very geomorphologically active, particularly between the edges of Cheltenham and the M5, where it is naturalising following historic straightening and re-sectioning. It suffers from excessive incision which needs to be redressed and anticipated in any design.
	Solution	The final iteration of the channel cross sections should show more diversity in gradient in all elements of channel geometry to create an attractive naturalistic channel with improved functionality. In the expectation of further dialogue with the Environment Agency e.g. in the context of Flood Risk Activity Permit (FRAP) /statement of common ground etc we can offer more detailed feedback on all the river enhancement commitments to maximise benefits and optimise the designs of the interventions.

5.3 Dean brook, River Swilgate and Hatherley brook		
Chapters: Environmental Statement	Issue	Dean brook, River Swilgate and Hatherley brook aren't labelled, highlighted or included in the assessment screening outcome. All three are within hydrological catchment of the Severn estuary and support qualifying species of the protected site.
Section/pages/able reference:  Land Plans - APP 2.2 /APP/2.2 LAND PLANS REGULATION 5(2)(i) SHEET1, 2 and 10 OF 16  Appendix 7.12 Aquatic ecology survey – APP 6.15 FIGURE7-12A	Impact	The carriageway and potentially some additional land over Dean brook, River Swilgate and Hatherley brook are within the red line boundary and shown as land to be used temporarily. More clarification/confirmation is needed as to what works are taking place (if any) that might affect this watercourse directly or indirectly and the significance of being in land used temporarily? There doesn't appear to be any planned. Additionality of current proposal to significant legacy environmental impacts of M5; loss of habitat, habitat connectivity and increased risk to otters etc. In additions to culverts and training walls under M5 the Swilgate suffered significant unsympathetic realignment at the toe of the M5. The scale of proposed mitigation on the Chelt itself and ditch network at headwaters of Chelt and headwater ditch network not commensurate with impact.
	Solution	If it is not possible to further extend the order/red line boundary limits on the Chelt to accommodate longer lengths for compensation habitat enhancement, we strongly advocate retrofitting otter passes to all relevant watercourses within redline boundary – scheme wide approach. Opportunities to offer mitigation on these watercourses within the estate of Highways and red line boundary mitigation or enhancement.

5.4 Leigh Brook		
Chapters: Chapter 7 Biodiversity	Issue	Impacts to Leigh Brook not adequately characterised or mitigated.
Section/pages/ table reference: Table 7-15 7.8.136. Table 7-16	Impact	The extension Leigh Brook Culvert under the M5 0.02 km of open channel and riparian habitat will be permanently lost due to the extension of the Leigh Brook culvert to accommodate the installation of the two northern slip roads. Construction activities such as excavation and plant/material movements to accommodate the culvert extension and channel realignment, may result in temporary disturbance to other aquatic species and riparian species. Although we agree that the section of the Leigh Brook within and immediately adjacent to the Scheme may not support a significant fish population, due to poor habitat quality and intermittent flow. We do not agree that this will act to limit the presence of key sensitive species, such as migratory eel, as much as stated.
	Solution	Reconsider impacts to Leigh Brook, and proposed mitigation.

5.5 Eels		
Chapters: Appendix 7.14 Habitat Regulations Assessment – Statement	Issue	Value of watercourses other than the Chelt for eel may have been underestimated. The Leigh Brook and some of the other affected watercourses have some potential to support Catadromous fish namely eel. Eel also routinely frequent heavily modified drainage ditches.
Section/pages/ table reference:	Impact	Potential disturbance, injury or mortality to eels during construction.
	Solution	Consider impacts on eels in other watercourses other than the Chelt.

5.6 Great Crested Newts		
Chapters 7: Biodiversity	Issue	The scheme proposes to create six attenuation basins and the wetland habitat within the flood storage area which `will be designed to benefit biodiversity, including great crested newts`. The current design does not show much biodiversity enhancement, however, optimise the potential of the attenuation ponds.
Section/pages/ table reference: Table 7-17	Impact	Lack of available habitat specifically for great crested newt. Risk of amphibian mortality (including great crested newts) associated with traditional gullies.
	Solution	We would recommend you Improve the physical design of the basins to make a meaningful contribution to this species and other wildlife.

## 6.0 Key Issues – Flood Risk

6.1 Flood risk Impacts Technical Note TR010063 – APP 9.20		
2.4.4	Issue	Flood plain compensation for the West Cheltenham Link Road is provided by the main storage area for the scheme which is on a different watercourse
	Impact	There are some minor detriments (circa 20mm increases in level) predicted by the modelling downstream of the proposed link road
	Solution	Any flood plain mitigation works should be undertaken directly adjacent to the two minor watercourses, or the pond designed and located in such a way to avoid encroachment into the flood plain following best practice guidelines. It is not appropriate to provide overcompensation in the large wetland flood storage area for the main scheme as this is on a different watercourse.

6.2 Volume 6. (Appendix 8.1 Flood Risk Assessment Part 1 of 2)		
5.4.26 – 5.4.47	Issue	Provision of flood plain compensation scheme.
	Impact	Failure to provide an appropriate scheme will result in impacts to third parties.
	Solution	Whilst a scheme has been agreed in principle no detail designs have been submitted as would be expected to support the application. Whilst this could be conditioned it would have been preferable to have seen detailed designs submitted.
5.4.95 – 5.4.99	Issue	Right to increase flood levels through the DCO.
	Impact	Where full flood plain compensation cannot resolve all flood risk impacts over the lifetime of the development.
	Solution	A legal agreement with those landowners affected should be submitted as part of this review based on the evidence set out within the Flood Risk Assessment (FRA) in line with common land drainage law or alternative mitigation provided.

We have reviewed the Flood Risk Assessment (FRA) prepared by Atkins dated December 2023 as set out in Appendix 8.1 of the Environment Statement.

We have no objections to the proposals in principle from a flood risk perspective as the evidence presented to support the Development Consent Order (DCO) meet the requirements set out within the National Planning Policy Framework (NPPS) in relation to flood risk.

### 6.3 *Flood Risk Vulnerability*

We concur that the overall scheme should be designated as ‘Essential Infrastructure’ as defined in Annex 3 of the National Planning Policy Framework.

### 6.4 *Flood Zones*

The alterations to the current motorway junction and proposed new link road are in all flood zones as shown on our Flood Map for Planning (including parts of Flood Zone 3b) and defined in Table 1 of the Flood and Coastal Change section of the National Planning Practice Guidance (NPPG).

### 6.5 *Sequential Test*

Reference to the sequential test is set out in paragraphs 2.2.15 to 2.2.18 of the FRA and the Environment Agency considers that this is a matter solely for the Inspector to determine, we would make no further comment on this matter.

- 6.6 *Exception Test*  
Whilst Essential Infrastructure can be located within all Flood Zones the notes highlighted to table 2 in paragraph 079 of the National Planning Policy Guidance need to be adhered to as highlighted in paragraph 4.3.11 of the FRA.
- 6.7 *Flood Risk Information*  
The applicant has submitted detailed hydraulic modelling to the Environment Agency as part of pre-application discussions with regards the scheme.  
This included a 'baseline' model of the existing situation that was reviewed and 'signed off' as acceptable to use by the Environment Agency in April 2022.  
A follow on 'preferred options' model was also submitted for review and signed off by us in June 2023. This final model allowed the applicant to assess the potential impacts of the scheme and propose/test appropriate mitigation measures.
- 6.8 *Climate Change*  
The FRA has identified the correct uplifts to fluvial flooding that should be used to assess the potential impacts of climate change over the lifetime of the development as set out in paragraph 4.4.4.  
The impacts have formed part of the previously mentioned hydraulic modelling works.
- 6.9 *Other Forms of Flooding*  
We concur with the conclusions set out within paragraph 3.7 and table 3.3 of the FRA in relation to other forms of flooding.
- 6.10 *Exemption Test Principles*  
Following on from the model reviews the applicant has submitted initial details for flood mitigation proposals to meet the requirements of the principles that must be met as listed in paragraph 079 of the NPPG.
- 6.11 *Remain operational and safe for users in times of flood.*  
The Design Flood Level which includes an appropriate 53% uplift for the potential impacts of climate change over the lifetime of the development has been used and additional freeboards applied to ensure that the link road remains operational along with all flood risk infrastructure such as the flood culverts (which are positioned where key out of bank flood flow routes currently exist in Flood Zone 3b) and river bridge meet appropriate design criteria.
- 6.12 *Result in no net loss of floodplain storage.*  
Whilst appropriate level for level, volume for volume flood plain compensation has been difficult to obtain the overall volume of compensation provided and its location shows that no significant impacts will result from the development.

This has been supported by the detailed preferred option hydraulic modelling. However, where some minor impacts do still occur outside of the proposed compensation areas the applicant must obtain the agreement of the effected landowner as part of the DCO process.

It is also key that any proposed compensation works are undertaken prior to construction of the scheme commencing within the flood plain that would also minimise impacts during the construction phase.

However, the level of detail provided on the final compensation designs is deemed limited and several documents referred to within the FRA such as the Baseline and Scheme Hydraulic Modelling Reports have not been included within the submissions, which contain further relevant details to support the application.

- 6.13 *Not impede water flows and not increase flood risk elsewhere.*  
The proposed design includes flood culverts beneath the carriageway embankment within critical areas of out of bank flood flows within the functional flood plain (Flood Zone 3b).

The new bridge across the River Chelt also takes account of the impacts of climate change, though the description within the FRA and the drawings submitted do not align. The hydraulic modelling also confirms that whilst structures would potentially impact on out of bank flow routes, these impacts can be mitigated for.

Hence it is considered that in principle the above key requirements of the exception test can be passed subject to appropriately worded conditions to ensure the works are delivered.

- 6.14 *Regulatory Easements and need for other permissions.*  
Elements of the proposals will also require the prior separate formal permission of the Environment Agency under the Environmental Permitting Regulations (2016) and it is noted that the DCO does not seek to disapply these requirements.

However, this process is seen as secondary to formal planning permission in relation to the final proposed designs and required mitigation in relation to flood risk, which should have been submitted.

## 7.0 Key Issues – Flood Risk Modelling and Hydrology

7.1 Ordinary watercourse modelling		
	Issue	Modelling not reviewed by the Environment Agency
	Impact	Flood risk could be misrepresented and impacts misunderstood
	Solution	At the Statement of Common Ground meeting with Atkins on the 5 <sup>th</sup> June 2024 it was stated by Atkins that the Lead Local Flood Authority have reviewed this model and are happy with it. Having reviewed our internal guidance regarding reviewing models for flood risk assessments (LIT 14594), this indicates that the Environment Agency should undertake a detailed review of the model given that the development is classed as essential infrastructure. On this basis we would like to see a copy of the modelling for the ordinary watercourse. We appreciate the risks are low here and the LLFA have already reviewed the model report. This should be a quick exercise for the Environment Agency to satisfy itself that the modelling is reasonable.

## 8.0 Key Issues – Water Quality

8.1 Volume 6. Chapter 8 – Road Drainage and the Water Environment		
Section 8.7.47	Issue	This section, and section 8.9.13, states that spillage control measures will contain spillages and prevent pollutants from reaching controlled waters if a spill were to occur. Although these measures reduce the risk of spillages reaching the

		environment, they are unlikely to be able to prevent serious spills (for example a collision involving a HGV tanker carrying polluting material) from entering a watercourse.
	Impact	The Highways England Water Risk Assessment Tool (HEWRAT) spillage assessment quoted considers the risk of pollution from serious spillages. The assumption that the proposed control measures will prevent any contamination from reaching a watercourse is therefore incorrect.
	Solution	Although the Environment Agency agrees that the output of the HEWRAT appears to suggest a low risk of a pollution occurring as the result of a spillage, it should not be assumed that the pollution will be stopped in the event that one does occur. Therefore, a plan should be in place if an event does occur.

## 8.2 Register of Environmental Actions and Commitments

WE1	Issue	Action WE1 focuses on minimising deterioration in surface water quality resulting from construction activities. A key protection measure for water quality is the requirement to hold and adhere to an environmental permit to discharge any trade or dewatering effluent, as well as surface water runoff from areas of exposed soil. Securing and adhering such a permit is not reflected within this action.
	Impact	If this action to protect water quality is not linked to the need for an environmental permit, then the proposed mitigation measures (for instance the EMP) may not line up with the permit requirements. This could result in pollution events or permit non-compliance.
	Solution	The commitment to obtain and adhere to an environmental permit for any discharges should be included within action WE1. The 2 <sup>nd</sup> iteration of the EMP should reflect how this will be achieved.

## 9.0 Key Issues – Groundwater and Contaminated Land

### 9.1 Volume 6. Chapter 10: Geology and Soils

10.2.15	Issue	<p>There will be a requirement to manage shallow groundwater and/or rainwater ingress were encountered during excavation and earthworks. Whereas any such small-scale dewatering at a rate of &lt;20 m<sup>3</sup>/d is excluded from permitting, anything more significant will require an abstraction licence if it doesn't meet any of the exemption criteria given in <a href="#">The Water Abstraction and Impounding (Exemptions) Regulations 2017 (legislation.gov.uk)</a></p> <p>There may also be permit requirements for the subsequent discharge of any waters, unless covered by an exemption too, e.g. <a href="#">Temporary dewatering from excavations to surface water: RPS 261 - GOV.UK (www.gov.uk)</a>.</p>
	Impact	Uncontrolled dewatering and/or discharge activities on-site could have an impact upon nearby linked features, such as local wells, watercourses or wetlands.

	Solution	<p>We advise the Applicant to seek early pre-application advice from the Environment Agency's National Permitting Service to understand and prepare for any requirements.</p> <p>Our standard position is that we recommend that the Applicant twin tracks the DCO and permit applications. At present this has not been undertaken, therefore at this stage we cannot give any assurances that the current proposals will be granted environmental permits where needed.</p>
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- 9.2 Further to our previous response to the Scoping Study (*ref. SV/2021/111053/01-L01*) (response attached) we have now also reviewed the Environmental Statement for this M5 Junction 10 Improvements Scheme, Chapter 10: Geology and Soils, Appendix 10.7 Ground Investigation Report and Appendix 8.2B WFD Groundwater Impact Assessment and would like to comment as follows, again from a perspective of the protection of Controlled Waters only.
- 9.3 We note that superficial deposits of Cheltenham Sand & Gravel and Alluvium are present in the vicinity of the River Chelt and the Leigh Brook, sections of the M5 and also near the A4019 between the M5 Junction 10 and Cheltenham, at depths of 0.2 - 2.7 m below ground level. These are classed as a Secondary A aquifer and are permeable enough to carry substantial groundwater. The Charmouth Mudstone bedrock (a less valuable / unproductive Undifferentiated Aquifer) underlies the Scheme across the majority of the study area, with the Rugby Limestone Member (Secondary A aquifer) present in the south-west of the area only. Made Ground was merely recorded in the vicinity of the existing roads (M5, A4019 and B4634), embankments and structures, with natural topsoil and agricultural activities present in all of the other locations. We understand that no official records of areas of potentially contaminated land or landfills were identified within the study area and no local abstraction licences (public or private) recorded. Also, there are no statutory environmental designations locally.
- 9.4 An intrusive ground investigation was undertaken and reported in February 2022. We note that a total of 70 samples were recovered from the area, collected from a range of strata and from depths of between ground level to 5.9 m bgl. No visual indications of contamination were recorded in any of the locations progressed during the investigation and only benzo(a)pyrene was identified above the General Assessment Criteria in soil samples collected from five locations within the existing M5 carriageway footprint. Soil leachate samples and groundwater samples were also collected and assessed against Water Quality Standards (WQS), which did show various concentrations of ammoniacal nitrogen, nitrate, chloride, sulphate, metals and organics in exceedances of the Tier 1 standards. However, it was concluded that there was unlikely to be an unacceptable risk to Controlled Waters receptors from these considering that the identified exceedances of metals and inorganics were marginally above the assessment criteria and generally widespread across the Scheme. The concentrations were considered likely to be indicative of natural background concentrations associated with farming and naturally high sulphate derived from the underlying Charmouth Mudstone bedrock. In addition, direct comparison of soil leachate results with Tier 1 WQS does not take into account the dilution and attenuation of contaminants that may occur along the pathway between the source and the nearest receptors and no exceedances of the screening criteria were reported in surface water samples.
- 9.5 It therefore appears that the area in question is ready for redevelopment without the need for further ground investigations, risk assessment or remedial action first. However,

we are mindful that the construction activities themselves could potentially introduce new sources of contamination (e.g. from spillages and leaks), expose extracted soils in stockpiles to enhanced leaching and runoff plus create possible new and more direct pollution pathways through piling and/or installation of drainage. The Applicant therefore should aim to undertake –

- Preparation of piling risk assessments as required in accordance with Environment Agency guidance to assess and manage any risks to Controlled Waters.
- Working methods during construction to manage groundwater and surface water appropriately and ensure that there is no run-off from the works, any material / waste stockpiles and/or storage containers into adjacent surface watercourses in accordance with DEFRA and Environment Agency's guidance.
- Stockpile management (such as water spraying and avoiding over stockpiling to reduce compaction of soil and loss of integrity) and timely removal of stockpiled soil to prevent windblown dust and surface water run-off.
- Implementation of an appropriate Materials Management Plan and Site Waste Management Plan to manage all materials during the construction works.

9.6 Finally, also during the actual future operation of the Scheme there will likely be new sources of contamination introduced such as tyre and vehicle debris, spillages and leaks, road de-icing or indeed chemicals from road traffic accidents, with their possible impacts enhanced by newly installed drainage runs. It is therefore essential that the Scheme will be operated in accordance with the relevant regulations and best practice guidance in applying Best Available Techniques and pollution prevention to mitigate the risk of contamination to Controlled Waters. We understand a drainage strategy has already been developed to allow for management of volumes and quality of any surface runoff from the highway, including the construction of six attenuation basins along the M5, A4019 and the new link road, and we hope these will indeed be able to contain and lock in any gross pollution when needed, as well as filter out any more diffuse inputs. We also trust such features will be lined where needed and subject to ongoing inspection and maintenance during their lifespan. The design of infiltration SuDS schemes and of their treatment stages can be considered but needs to be appropriate to the sensitivity of the location and subject to a relevant risk assessment, considering the types of pollutants likely to be discharged, design volumes and the dilution and attenuation properties of the aquifer.

## 10.0 Environment Management Plan

10.1		
Chapters: Environment Management Plan (EMP) APP 7.3	Issue	The EMP (1st iteration) sets out the framework for future iterations of the EMP. The preferred option doesn't go far enough to ensure all relevant detail for all requisite mitigation and enhancement.
Section/pages/ table reference:	Impact	Risk of unacceptable residual impacts from scheme.
	Solution	Consult the Environment Agency on 2nd iteration of the EMP – known formerly as the construction EMP, in advance of construction starting.

<i>10.2 Environmental Management Plan - Annex B.7: Pollution Prevention and Control Management Plan</i>		
B.7.2.11	Issue	This section misses several key potential sources of pollution that may arise due to the scheme. This includes surface water run-off from areas of exposed soils or stockpiles, construction compounds and storage areas for chemicals and fuels.
	Impact	If these potential sources are not considered within this plan, it reduced the plans effectiveness at reducing the risk

		of pollution from them.
	Solution	These sources should be included in this section.
B.7.2.1.14	Issue	This section does not acknowledge that pollution of surface water can occur if polluting substances are used even if they are away from a watercourse if a pathway is available.
	Impact	Pollution from construction sites can occur from sources away from surface watercourses, with the pollution migrating via pathways such as drains or overland. Failure to acknowledge this within this plan reduces its effectiveness at preventing pollution.
	Solution	Polluting sources that are not near to watercourses should be acknowledged within this document. They should be considered within the context of the source-pathway-receptor model.
B.7.2.17	Issue	There is no appreciation within this section that runoff can become contaminated if it encounters an area of exposed soils.
	Impact	Surface water contaminated with sediment is one of the most common causes of pollution from construction sites. If this is not identified, then it reduces the plan's effectiveness at preventing pollution.
	Solution	Contamination from areas of exposed soils should be added to this section.
B.7.2.22	Issue	This section references an Environment Agency Regulatory Position Statement (RPS) called "Managing concrete wash water on construction sites: good practice and temporary discharges to ground or to surface waters". This RPS is no longer valid and should not be referenced.
	Impact	Following an RPS that is no longer valid risks non-compliance with current legislation. This could result in environmental harm and/or enforcement action.
	Solution	References to this RPS should be removed from this document, and any others within the DCO submission. The Applicant may wish to check the website below for information on currently active RPS's. The Applicant may wish to consider RPS 235 or RPS 261 in the context of section B.7.2.22.  Website: <a href="http://www.gov.uk/government/topics/environmental-permits">Environmental permits: regulatory position statements - GOV.UK (www.gov.uk)</a>

- 10.3 The EMP lacks details on how the Applicant will maintain oversight of the environmental performance of the principal contractor and subcontractors. Pollution incidents can occur when there is insufficient oversight of contractors and their adherence to environment management procedures. We recommend the 2nd iteration EMP includes details on how oversight will be achieved, including how the project team will be notified of environmental incidents, how often they will monitor and review the performance of the contractors, and how they will manage contracts to ensure that corrective action can be taken in the event of non-compliance with the EMP.
- 10.4 Annex B of the EMP lists further plans that will be developed along with the 2nd iteration of the EMP. Although monitoring is mentioned elsewhere in the EMP, there is no reference to an environmental monitoring plan within Annex B. Having a dedicated monitoring plan may allow a clearer monitoring strategy, allowing better environmental performance reviews and swifter, more effective, corrective action to be taken if an issue is identified.

- 10.5 Section D.5.1 states that watercourses will be checked during periods of high rainfall for any potential discharges of sediment-laden run-off. We welcome this proposal, however it may be worth formalising this requirement within the 2<sup>nd</sup> iteration to make it clear what the trigger level will be for additional checks/monitoring. This will reduce the risk that the checks are not carried out, which in turn reduces the risk that potential pollution events go unobserved.
- 10.6 A list of current available best practice and guidance which will be followed by contractors during the construction phase should be included.

## 11.0 River Basin Management Plan

11.1		
Chapters: Environmental Statement Appendix 8.2A WFD Surface Water Impact Assessment - APP 6.15	Issue	Programmes of measures needed to achieve the environmental objectives in the river basin district is not given due consideration.
Section/pages/ table reference:	Impact	The scheme could restrict the options for future plans and projects to achieve good ecological status in the Severn Estuary. Risk of unacceptable residual impacts from scheme.
	Solution	Consider programmes of measures for Severn Estuary River Basin Management Plan within WFD Assessment.

## 12.0 Further representations

- 12.1 In summary, we can confirm that we have no objections to the principle of the proposed development, as submitted. The issues outlined above are all capable of resolution and we look forward to receiving additional information to resolve our outstanding concerns. We will also continue to engage with the Applicant and review the Statement of Common Ground (SoCG).
- 12.2 We reserve the right to add or amend these representations, including requests for DCO requirements and protective provisions should further information be forthcoming during the examination on issues within our remit.

Should you require any additional information, or wish to discuss these matters further, please do not hesitate to contact me on the details below.

Yours faithfully

**Noreen Nargas (MRTPI)**

**Planning Specialist – National Infrastructure Team**

**Environment Agency** | Sentinel House, 9 Wellington Crescent, Fradley Park, Lichfield, Staffordshire, WS13 8RR