

A12 Chelmsford to A120 widening scheme

TR010060

9.73 Applicant's Comments on Others' Responses to ExQ3

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A12 Chelmsford to A120 widening scheme

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1 Introduction

- 1.1.1 The Development Consent Order (DCO) application for the A12 Chelmsford to A120 widening scheme (the proposed scheme) was submitted by National Highways to the Secretary of State for Transport via the Planning Inspectorate on 15 August 2022 and accepted for Examination on 12 September 2022.
- 1.1.2 The purpose of this document is to set out the Applicant's comments on the response of others to Examining Authority's Third Round of Written Questions (ExQ3).

2 Applicant's comments on responses to ExQ3

Q3.3.3	Environment Agency
Co-Responder's Response	
<p>Q3.3.3 to the Applicant, EA Please can the parties provide a further update on the issues that have been raised throughout the Examination to date (including those raised at ISH4 regarding disapplication of permits), in relation to the proposed use of culverts. From the Applicant, this should include a response to the EA's Deadline 5 submissions including implications for compliance with the Water Framework Directive.</p> <p>Should the parties not achieve an agreed position by the end of the Examination, the ExA requests that by DL8 each party provides a final position statement outlining the key matters of contention.</p> <p>There has been no additional progress on this issue further to that detailed in our Deadline 5 submission [REP5-031] dated 10 May 2023. As part of that response, we outlined the most recent discussions with the Applicant on this matter on 5 May 2023. Our position remains that the highlighted main river crossings will cause unnecessary and avoidable environmental damage, and the Applicant has failed to demonstrate conclusively otherwise. Subsequently, we are not prepared to consent to the disapplication of the Environmental Permitting (England and Wales) Regulations 2016 for flood risk activity permits.</p>	
Applicant's Response	
<p>The Applicant has set out in detail its position on culverts in the Technical Note on Main River Crossings submitted at Deadline 6 [REP6-095]. The Applicant's position is that the Applicant has provided an environmental assessment that demonstrates no likely significant effects and a WFD assessment that demonstrates compliance. Our position is supported by proposed mitigation measures where required.</p>	

The Environment Agency states that the Applicant has failed to demonstrate conclusively that the highlighted main river crossings would not cause unnecessary and avoidable environmental damage. The Applicant's detailed response to this point is set out in section 4 of the Technical Note on Main River Crossings submitted at Deadline 6 [REP6-095].

In summary, no significant adverse effects were identified for the Main River crossings, no likely significant effects have been identified under the Habitats Directives as explained in the Habitats Regulations Assessment No Significant Effects Report [APP-201], or the Water Environment Regulations (WFD Regulations) Compliance Assessment [APP-159], and project design and mitigation for the Main River crossings do not significantly affect flood risk as explained in the Flood Risk Assessment [APP-162].

Conversely, the Applicant has not been provided with any assessment by the Environment Agency which demonstrates that the proposed culverts would be likely to have significant residual effects.

In light of the cases of *Trusthouse Forte v Secretary of State for the Environment* (1987) 53 P & CR 293 and *R (Mount Cook Land Limited) v Westminster City Council* [2017] PTSR 116, since the Applicant's assessment does not identify any 'conspicuously harmful effects' arising from the proposed culverts, no duty arises as a matter of law for the Secretary of State to consider alternative proposals to them. Equally, the Applicant has not been able to identify a policy requirement in the NNNPS or other relevant policy requiring it to consider alternatives. Where a development is determined on its own merits to be acceptable in policy terms, there is no duty upon the decision maker to consider whether a yet more acceptable alternative can be identified (*Sainsburys v First Secretary of State* [2007] EWCA Civ 1083).

The Applicant is no longer proposing to disapply environmental permits and has deleted that disapplication from article 3 of the draft DCO submitted at Deadline 6 [REP6-036], including the protective provisions which provided a substitute.

The Applicant submitted a Technical Note on Proposals for Main River Crossings at Deadline 6 [REP6-095] which summarises its position with regards to outstanding matters in relation to the Water Environment. The Applicant considers that this document constitutes the position statement requested by the Examining Authority.

At ISH5 on 27 June 2023, the Environment Agency committed to commenting on the Technical Note at Deadline 7, in which case the Applicant would consider responding to the Environment Agency for Deadline 8.

A meeting was held between the parties on 26 June to discuss matters recorded as 'under discussion' in the SOCG between the parties. The position of both parties on this matter has not changed in light of that meeting.

Q3.3.5	Environment Agency
Examiner's Question	
<p>In REP5-031, the EA state that they have 'repeatedly stated throughout our pre-application engagement with the Applicant that main river crossings should be as wide and light as possible, retaining a natural channel and natural bank margins.' Please can the EA provide evidence to support this statement. Please can the Applicant demonstrate how and where they have considered these comments.</p>	
Co-Responder's Response (Q3.3.5 Sub-part 1)	
<p>Q3.3.5 to the Applicant, EA In REP5-031, the EA state that they have 'repeatedly stated throughout our pre- application engagement with the Applicant that main river crossings should be as wide and light as possible, retaining a natural channel and natural bank margins.' Please can the EA provide evidence to support this statement. Please can the Applicant demonstrate how and where they have considered these comments. We have highlighted this issue from the earliest stages. As part of our response to the Route options consultation (Our reference AE/2017/121411/02-L01, dated 28 November 2019), we stated that: All new crossings should be clear span bridges with wide natural floodplains and riparian habitat in both banks. The bed and banks of all the watercourses should remain unaffected by the works. We highlighted in our response to the EIA Scoping consultation (Our reference AE/2020/125624/01-L01, dated 26 November 2020) the negative impact of the existing A12 on the watercourses it crosses, and that and that the proposals have the potential to cause further damage which should be avoided, while opportunities should be taken to resolve existing problems. An extract of that response is included below: Chapter 9: Biodiversity As highlighted towards the beginning of this chapter, the National Networks National Policy Statement (NNNPS) states that applicants should describe how a project plans to conserve and enhance biodiversity conservation interests. This is particularly relevant in respect of this proposal, as we have on-going concerns about the existing A12 infrastructure and its often negative impacts on the watercourses it crosses. Our comments on this chapter concern ecological interests associated with those watercourses, and so consequently there is some overlap with Chapter 14: Road drainage and the water environment. Over many years it has been observed that Essex rivers which are crossed by the A12 trunk road have been badly affected by past engineering treatment which has left a lasting effect. Upstream of the A12 the rivers and watercourses are often in a much healthier state than the sections downstream indicating point source pollutions and other negative impacts. Previous engineering changes affect the ability of wildlife to pass up and downstream freely or the natural morphological function which affects flow or sediment transport. As an example of</p>	

this, the current A12 crossing of the River Brain downstream of Witham has a concrete cill which holds up water and forms an unnatural and harmful barrier to flows and the ecological corridor. These site specific issues should be identified and resolved wherever possible. There are also instances of apparent water quality declines at the crossings as a result of poor quality run-off. The invertebrate fauna downstream is less diverse than upstream and appears to be causing a progressive decline as the problems are not resolved. Many of the current crossings would not be permitted in the same form today and we wish to see the environmental issues recognised and mitigated for in this widening scheme. Much of the widening of the A12 will have the potential to cause further ecological problems in terms of mammal passage for otter, water vole and in-channel passage for fish and eels. Longer or additional crossings can exacerbate the existing issues making protected species less likely to utilise the longer underpasses beneath the carriageways. During high flows, otter in particular will avoid difficult and dark traverses upstream and can become road casualties as a result. The A12 Colchester bypass is currently a particular otter death black spot. Bridges and culverts also have known negative impact on rivers as wildlife corridors for invertebrates towards the bottom of the food chain. Dragonflies, mayflies and others are known to navigate by using the horizontal polarization of water reflected light. Bridges, especially long ones or low culverts prevent adult insects moving through darker crossings up and downstream. In the light of the negative impacts of the existing A12, a full assessment and improvement of the current drainage system will be required to prevent deterioration under the Water Framework Directive; this is likely to include for example the provision of pollution interceptors and balancing ponds etc. Without this, the A12 and associated roads (especially the proposed de-trunked A12 sections) will risk causing failings under the Water Framework Directive. Clear Span Bridges and well-designed wide culverts.

Multiple road crossings of watercourses can present a particular problem on what should naturally be rich habitats along important wildlife corridors. There should be a preference for clear span bridges rather than culverts. At each crossing opportunities should be taken to better the existing arrangements by ensuring there is more natural bank retained and channel habitat restoration before crossings are built. Long culverts are particularly problematic for otter passage. This issue can be designed out with wider, generous passage and clear span bridges wherever possible. Design will need to respect the ecology and hydromorphology of the river corridor. We recommend that a geomorphologist is involved in the design process. We suggest that the applicant uses the new biodiversity river metric to ascertain impacts on watercourses and what mitigation and enhancement measures are required. This will quantify the impacts of the proposal and ensure that there is sufficient provision for biodiversity and habitat

Applicant's Response (Q3.3.5 Sub-part 1)

The Applicant acknowledges the comments from the Environment Agency in the Scoping Opinion and responded in Environmental Statement Appendix 5.1: Scoping Opinion Response Table [APP-096]. The Applicant's position on Main Rivers has also been set out in detail in the Deadline 6 Submission - Technical Note on Proposals for Main River Crossings [REP6-095], which is summarised below where relevant.

Biodiversity

In their scoping response, the Environment Agency highlighted that the National Networks National Policy Statement (NNNPS) requires that the Applicant '*describe how a project plans to conserve and enhance biodiversity conservation interests*'. The Applicant has undertaken a comprehensive biodiversity assessment, reported in Environmental Statement Chapter 9: Biodiversity [APP-076], which has been informed by desk-based studies and surveys. The biodiversity assessment concluded that there would be no likely adverse significant effects with the application of proposed mitigation measures (as set out in Sections 9.10 and 9.11 of Chapter 9 [APP-076]), with the exception of adverse effects on Perry's Wood local wildlife site and ancient woodland from nitrogen deposition, which is not relevant to the issue of Main Rivers. As such, in accordance with paragraphs 5.43 and 5.51 of the NNNPS, no further mitigation or options need to be considered.

The Environment Agency also stated that '*a full assessment and improvement of the current drainage system will be required to prevent deterioration under the Water Framework Directive*'. A full assessment of the effects on road drainage and the water environment (RDWE) has been reported in Chapter 14 of the Environmental Statement [APP-081] in line with the requirements set out in paragraph 5.220 to 5.223 of the NNNPS. This is supported by the following appendices:

- Appendix 14.1: Water Quality Assessment Report [APP-158]
- Appendix 14.2: Water Environment Regulations (WFD Regulations) Compliance Assessment [APP-159]
- Appendix 14.3: Hydromorphology Assessment [APP-160]
- Appendix 14.4: Groundwater Assessment [APP-161]

- Appendix 14.5: Flood Risk Assessment [APP-162]
- Appendix 14.6: Surface Water Drainage Strategy [APP-174]

The RDWE assessment concluded that there would be no significant adverse effects on the water environment from the proposed scheme with the application of proposed mitigation measures (as set out in Sections 14.10 and 14.11 of Chapter 14 [APP-081]). In terms of compliance with the WFD Regulations, Appendix 14.2 [APP-159] ascertained that compliance could be achieved without degradation to the wider catchments of each relevant watercourse. Furthermore, the RDWE assessment has informed the drainage strategy for the proposed scheme, including the provision of pollution prevention measures such as attenuation ponds and other sustainable drainage features. The water quality assessment, based on the Highways England Water Risk Assessment Tool (HEWRAT) and reported in Appendix 14.1 [APP-158], concluded that there would be no likely significant adverse effects on water quality from the proposed scheme (see Section 8 of Appendix 14.1). Results show many outfalls passed the HEWRAT routine runoff assessments at the Step 2 stage, prior to consideration of mitigation. However, measures that provide treatment have been included in these drainage catchments and are expected to improve water quality compared to the existing situation, as currently there is no (or limited) mitigation. Due to these enhancements, it is anticipated that the proposed scheme would provide an improvement in water quality in some locations.

The Environment Agency has raised concerns over the potential impacts on species, particularly in terms of mammal passage for otter, water vole and in-channel passage for fish and eels. As explained in Sections 4.2 and 4.3 of the Technical Note on Proposals for Main River Crossings [REP6-095]), the Applicant does not consider the Main River crossings to be a barrier to fish and eel passage. In addition, the invert of the proposed new Main River culverts would be buried beneath the natural bed of the watercourse to allow the continuation of sediment conveyance and reduce the impact on local flow dynamics (as committed to in RDWE 39 in the Register of Environmental Actions and Commitments (REAC) [REP6-052]). This would replicate the natural stream bed material within the structure to aid permeability to fish and eels.

With regards to otters and water vole, based on the literature currently available (as explained in Sections 3, 4.2 and 4.3 of the Technical Note on Proposals for Main River Crossings [REP6-095]), the Applicant does not consider the proposed crossings would reduce permeability or introduce any new barriers to riparian mammals (notably otter and water vole). In addition, in some locations (i.e. where retrofitting of mammal ledges to existing structures or otter fencing are proposed) there would be an improvement on

baseline conditions. Therefore, the proposed crossings would not give rise to any significant adverse effects on the passage of riparian mammals.

The Applicant recognises the potential for adverse impacts on invertebrates, particularly species that may use reflective light as a navigational aid. Environmental Statement Chapter 9: Biodiversity [APP-076] concluded that there would be negligible impacts, resulting in neutral effects during operation on freshwater macroinvertebrate and aquatic macrophytes when considering embedded mitigation (see paragraphs 9.11.367 to 9.11.371 in Chapter 9). As stated in the Applicant's Comments on Written Representations (page 131 [REP3-009]) '*the 'neutral' assessment of effect on freshwater macroinvertebrate and aquatic macrophytes considers the localised permanent loss of aquatic habitat (supporting ubiquitous species, common to the wider catchment) against the creation of new river alignments that improve habitat diversity and opportunity for aquatic flora and fauna.*' Even applying a worst-case scenario whereby the level of impact is major adverse (as opposed to the negligible impacts concluded in Chapter 9), the residual effect would be slight adverse on these Local and County level receptors, which is not significant in line with Table 3.13 of DMRB LA 108. Therefore, no mitigation is required.

Lastly, the Environment Agency states that the existing bridges along the A12 '*affect the ability of wildlife to pass up and downstream freely*' and affect water quality, and that it wishes the Applicant to identify these issues and mitigate them. However, the Applicant has demonstrated (as set out in Section 4.2 and 4.3 of the Technical Note on Proposals for Main River Crossings [REP6-095]) that there would be no significant adverse effects from the proposed scheme designs, and therefore the replacement of existing bridges is not required for environmental reasons. This is in accordance with paragraphs 4.26 and 4.27 of the NNNPS, which require '*projects with significant environmental effects to include an outline of the main alternatives*'. While it is recognised that DMRB LD 118 states '*environmental assessment reports should identify opportunities to address historic impacts from motorway and all-purpose trunk roads on biodiversity resources*', it should be noted this falls under the category of 'enhancement' as opposed to mitigating impacts of the proposed scheme [REP3-009, in response to REP2-053-002]. It is the Applicant's view that measures to address historic impacts from the A12 would need to be proportionate and that provision of mammal ledges within existing sections of culvert on the Domsey Brook (west) and Roman River is appropriate in this instance.

The option of providing a bridge instead of a culvert (see section below on clear span bridges) would not lead to significantly better environmental outcomes. Replacing the proposed Main River crossings with open span bridges would be disproportionate in terms

of whole life cost, embodied carbon, and adverse construction impacts compared with any environmental gains manifest during the operational phase.

Clear span bridges and well-designed wide culverts

In its scoping response, the Environment Agency states there should be a preference for clear span bridges over culverts. In subsequent submissions throughout the Examination process, the Environment Agency has sought an assessment of the alternative options from the Applicant to justify the inclusion of culverts within the proposed scheme. The Applicant does not consider that there is a justification for such a comparative exercise in either law or policy, for the reason set out in detail in Section 4.5 of the Technical Note on Proposals for Main River Crossings [REP6-095]. In summary, the Applicant submits that since the culverts do not give rise to any likely adverse significant effects (as set out above under the biodiversity section), they are acceptable in policy terms and do not have to be justified further. As such, the Applicant considers that there is no legal or policy requirement under the NNNPS for the Secretary of State to consider alternatives to the culverts proposed.

The Environment Agency stated that the '*Design will need to respect the ecology and hydromorphology of the river corridor. We recommend that a geomorphologist is involved in the design process. We suggest that the applicant uses the new biodiversity river metric to ascertain impacts on watercourses and what mitigation and enhancement measures are required*'. As set out above in the preceding biodiversity section, the proposed scheme environmental assessment has had full consideration of the water environment and biodiversity. Competent environmental experts have undertaken the environmental assessment and input to the design process and will continue to do so throughout detailed design. A hydromorphology assessment has been undertaken (reported in Appendix 14.3 of the Environmental Statement [APP-160]). This concluded that there would be no significant effects on the hydromorphology of any watercourse from the proposed scheme (see Section 6 of Appendix 14.3) and identified appropriate mitigation measures to protect the hydromorphology of watercourses (see RDWE 39 to RDWE 42 in the REAC [REP6-052]).

As a Nationally Significant Infrastructure Project, the proposed scheme is not required to provide 10% biodiversity net gain (BNG). However, the proposed scheme has been assessed for BNG against Natural England's methodology (Metric 3.0) and does increase the Rivers and Streams biodiversity unit by 156.73% (including 0.36% for rivers). The Natural England methodology

followed combines watercourses into a single 'Rivers and Streams' measure and does not differentiate between Main River and Ordinary Watercourse designations, only between ditches and other watercourses.

Co-Responder's Response (Q3.3.5 Sub-part 2)

Attenuation pond design These should be constructed to be wildlife friendly – shallow edges, wavy margins, and designed so that they always contain a small area of standing water. An adequate footprint should be allowed for at an early stage to incorporate these design features. There are also opportunities for these features to be managed into the future with wildlife in mind, for example by sowing native wild flower mix for pollinators around the margins.

Applicant's Response (Q3.3.5 Sub-part 2)

As described within the Landscape and Ecology Management Plan (LEMP) [APP-193], the design of the attenuation ponds would incorporate native wetland plant species and macrophytes and be surrounded by wildflower and grassland areas seeded from an appropriate species-rich seed mix. The proposed attenuation ponds would provide habitat for numerous species including invertebrates, grass snakes, amphibians and foraging bats.

The proposed attenuation ponds have been designed to serve several purposes, providing habitat for wildlife and mitigating flood risk and providing a treatment to the surface water runoff. These attenuation ponds would be provided with silt traps to allow settlement of sediments from the surface water runoff which would benefit the long-term health of the wildlife habitats. The attenuation ponds have also made an allowance for shallow areas of water to encourage and ensure the growth of emergent vegetation. The proposed footprint of the attenuation ponds is therefore sufficient to meet the design requirements of the proposed scheme. The detailed design of attenuation ponds will be developed on the principles described above where practicable.

An indication of likely short and long term aftercare and monitoring operations for the proposed attenuation ponds is provided in the LEMP [APP-193], which will be updated as necessary to reflect the detailed design.

Co-Responder's Response (Sub-part 3)

Lighting The proposed lighting of the new widened section will need careful assessment and design to prevent light pollution impacts on river and watercourse biodiversity.

Applicant's Response (Sub-part 3)

As per paragraph 9.10.6 of Chapter 9: Biodiversity of the Environmental Statement [APP-076], the use of permanent lighting would be developed at the detailed design stage in accordance with best practice guidance (including Bats and artificial lighting in the UK, BCT Guidance Note 08/18 (BCT and Institution of Lighting Professionals, 2018)) to minimise impacts on wildlife including sensitive design of lighting to avoid creating a barrier to aquatic species or foraging bats on watercourses. Lighting would be limited to junctions, handrail lighting on the bridges for walkers, cyclists and horse riders (WCH), and side road approaches to junctions, and designed to best practice to reduce light spill. LED luminaires would be used, which use less energy than conventional luminaires, while reducing light spill into adjacent areas. As per commitment LV11 of the REAC [REP6-052], temporary lighting would be provided to ensure safe working conditions and to maintain security within construction compounds and working areas. Best practice measures would be implemented where practicable to ensure temporary lighting is avoided or directed away from heritage assets, residential and/or ecological receptors such as watercourses, woodland, badger setts, bat roosts and important commuting habitats.

Co-Responder's Response (Q3.3.5 Sub-part 4)

SSSIs have been scoped out of the current assessment as there are none within 2km of the road. However, internationally designated sites further afield which are often designated for the same features have been scoped in. Where there is potential for impact on downstream rivers and associated habitat there will be a possible effect for further than 2km. Failing drainage systems or culverts can, as demonstrated by the existing road, cause a limiting effect on the habitat downstream by disconnecting the wildlife corridor and prevent the ecosystem working as a naturally functioning whole. We would therefore expect any SSSIs downstream with water connectivity to be scoped in for assessment.

Applicant's Response (Q3.3.5 Sub-part 4)

As stated within paragraph 9.7.3 of Chapter 9: Biodiversity [APP-076], the Applicant has undertaken a desk-based assessment to identify Sites of Special Scientific Interest (SSSIs) within 2km of the proposed scheme, and 200m of the Affected Road Network (ARN), or which have hydrological connectivity to the proposed scheme, therefore including any sites beyond 2km where there is potential for impacts to occur over greater distances.

Paragraph 9.8.7 of Chapter 9 [APP-076] identifies one SSSI with hydrological connectivity to the site, the River Ter SSSI (geological designation), which is located approximately 8km upstream of the proposed scheme to the north of Boreham.

As stated in paragraph 9.11.15 to 9.11.16, and paragraph 9.11.268 to 9.11.269, because the River Ter SSSI is located upstream from the proposed scheme it is unlikely there would be impacts to this site from construction or operation of the proposed scheme due to hydrological or water quality changes. The Applicant concludes there would be no change in the level of impact on this Nationally important receptor, and therefore the significance of effect is neutral (not significant).

Paragraph 9.8.3 identifies five European Sites that have hydrological connectivity to the proposed scheme (Blackwater Estuary (Mid-Essex Coast Phase 4) SPA and Ramsar sites, Essex Estuaries SAC, and Colne Estuary (Mid-Essex Coast Phase 2) SPA and Ramsar site). The Applicant acknowledges these sites are also designated as SSSIs (Blackwater Estuary SSSI and Colne Estuary SSSI), however the Applicant has considered the assessment of effects on these SSSIs through the assessment of effects on the SAC and SPA/Ramsar sites which overlap.

As stated within paragraph 9.11.2 due to the size of the estuaries and the distance downstream, any pollution from construction of the proposed scheme would be diluted and very unlikely to affect any of the habitats or species for which the sites are designated. In addition, as stated within paragraph 9.11.3, any adverse impacts from hydrological and water quality changes to surface water during construction of the proposed scheme would be avoided through standard mitigation outlined in Section 9.10 of Chapter 9

[APP-076], specifically, the use of silt fencing, cut-off drains, baffles at discharge locations, and adoption of CIRIA guidance (C786, Culvert, screen and outfall manual).

As stated in paragraph 9.11.266, operational effects to the European sites with hydrological connectivity and therefore the SSSIs which they overlap would be prevented through embedded mitigation measures, including approved drainage designs and water management, such as the proposed 71 attenuation ponds to store surface runoff.

The Applicant has noted two further SSSIs with hydrological connectivity to the proposed scheme. The closest parts of the Roman River SSSI and parts of the Upper Colne Marshes SSSI are located 8.9km and 14.2km respectively downstream of the crossing of the Roman River and the A12. Like the European sites, any adverse impacts from hydrological and water quality changes to surface water during construction of the proposed scheme would be avoided through standard mitigation outlined in Section 9.10 of Chapter 9 [APP-076], specifically, the use of silt fencing, cut-off drains, baffles at discharge locations, and adoption of CIRIA guidance. Operational effects would be prevented through embedded mitigation measures, including approved drainage designs and water management, such as the proposed 71 attenuation ponds to store surface runoff.

The Applicant's assessment within Chapter 9 [APP-076] that there is no change in the level of impacts to Nationally important receptors, and that the significance of effect is neutral (not significant) is still valid.

The Applicant has corresponded with Natural England with respect to the Roman River SSSI and the Upper Colne Marshes SSSI. Natural England has confirmed (27 June 2023) that it is in agreement with this assessment. Item 4.4 of the Statement of Common Ground with Natural England [TR010060/EXAM/8.1] has been updated to reflect this, and to specifically add the Blackwater SSSI and Colne Estuary SSSI to record the national, as well as international, designation.

Co-Responder's Response (Q3.3.5 Sub-part 5)

In our response to the Preliminary Environmental Information Report (PEIR) consultation (Our reference AE/2021/126293/01-L01, dated 16 August 2021) we stated that the proposed crossings looked likely to cause ecological damage; extract below:

Applicant's Response (Q3.3.5 Sub-part 5)

The Applicant acknowledges the points raised by the Environment Agency and responds separately to sub-parts 6, 8 and 9 of this response.

Co-Responder's Response (Q3.3.5 Sub-part 6)

Chapter 9 Biodiversity We have some significant concerns regarding the impact on the watercourses and rivers crossed by the proposed A12 widening. The proposed crossings are in some cases particularly poor for biodiversity and look likely to contribute to the scheme compounding existing ecological damage, including by contributing to more otter deaths on the road. Further mitigation for loss and damage to river habitat is required. The Roman River, Domsey Brook and River Blackwater crossings look to be overly long and will cause problems for wildlife through habitat loss and river ecosystem fragmentation. Realignment should be avoided unless absolutely necessary and then full mitigation provided to compensate for damage to the environment. The Domsey Brook and River Blackwater appear to have long dark crossings which extend beyond the footprint of the road. We would like to see this revised to deliver the shortest possible length of road crossing. Dark crossings discourage almost all life from large mammals such as badgers, deer and otters to aquatic life including fish and invertebrates. To minimise damage to the ecology of an area (and in this case potential harm to whole river ecosystems), crossings should be short, wide, light-filled with natural vegetation and habitat throughout and lots of space to prevent wildlife being intimidated and tempted to find alternative routes which take them out from familiar surroundings and into danger. Unfortunately mammal fencing cannot always provide the solution. Increasingly we are seeing more large mammals trapped and becoming traffic fatalities due to the inability to get off dangerous roads once they get on to them. Wide generous treatment of river crossings allow animals to travel safely in their natural environment without having to leave and explore more dangerous options over roads.

Applicant's Response (Q3.3.5 Sub-part 6)

The Applicant refers the Environment Agency to the Technical Note on Proposals for Main River Crossings [REP6-095] which was submitted at Deadline 6 and summarises the Applicant's approach to designing the watercourse crossings, including the assessment of environmental impacts with particular regard to riparian mammals and fish.

Mammal and fish passage

Regarding the length of the culverts, there is evidence of otter using a 116m long culvert without mammal ledges (The Otter Consultancy, 2017). This is significantly longer than the longest culvert for the proposed scheme (Domsey Brook west at 70.1m), suggesting that the length of culverts being proposed would not pose a barrier to the movement of otter.

Fencing would be installed as a supplementary measure to further mitigate mortality of otters. Located in areas where the A12 crosses the main watercourses it would direct otter to the culvert entrances which provide safe crossing points under the A12 and would dissuade them from entering the carriageway. This is one of a suite of mitigation measures being proposed for riparian mammals, where the provision of mammal ledges (including retrofitting of mammal ledges to existing structures as per commitment BI32 of the REAC [REP6-052]) is considered the primary measure to reduce the likelihood of fragmentation and facilitate continued safe passage of otters across the proposed scheme.

While the Applicant has taken reasonable steps to obtain data on riparian mammal in the study area, the Applicant recognises that empirical data to support or refute the idea that culverts are an effective mitigation measure for mammal passage (notably otter and water vole) are not available. Therefore, the Applicant has committed to undertaking post-construction monitoring of the structures with proposed mammal ledges to determine whether the ledges are enabling safe passage of wildlife (including otters) under the A12 (as per commitment BI49 in the REAC [REP6-052]) and these data would be used to inform the design of river crossings for future National Highways projects.

Proposed Main River Realignments

The Applicant acknowledges the points raised by the Environment Agency.

Annex N of the Consultation Report [APP-062] details consultation responses in accordance with s49 of the Planning Act 2008. Within this document, pages 821-822, Reference OQ/143, the consultee response from the Environment Agency is as follows: 'Any new designed channels should be meandering in plan form, natural in shape and should incorporate two stage channels to provide narrower low flow channels with gravel bottoms. They should be designed to be self-cleaning and of exemplary natural form incorporating plentiful habitat to attempt to compensate for the dark culverts and crossings'. National Highways' response (how the Applicant has had regard to responses received) includes the following: '*Gently sinuous channels have been incorporated into the preliminary design for the Main River realignments (Rivenhall Brooks, Domsey Brook and Roman River). Gravel augmentation would provide additional mitigation along the Main River realignments and will be carried forward into detailed design. This would replicate pool-riffles sequences to facilitate hydromorphological processes along the realignments. Moreover, two-stage channels have also been agreed [with the Environment Agency] and will be incorporated into the detailed design for most of the Main River realignments, with the exception of Roman River where woodland prevents a two-stage channel from being excavated. For Roman River, a one-stage channel with setback, gently sloping banks and varied channel bottom widths has been agreed [with the Environment Agency]*'.

The Applicant has incorporated these features into the designs of the proposed main river realignments, as evidenced by the mitigation measures described below. As noted in the Applicant's Comments on Written Representations (REP2-053-002, page 110 [REP3-009]), river realignments have been designed in collaboration with a qualified geomorphologist to maximise environmental gain where practicable (see Appendix 9.14: Biodiversity Net Gain Report [APP-138]) and freshwater ecologists have worked closely with hydromorphologists so that beneficial features for wildlife, including natural banks, riffles, sinuosity and variation in depths are included within the designs (as stated in paragraph 9.10.18 of Chapter 9: Biodiversity [APP-076]). These include facilitating fish passage through incorporation of baffles/fish resting pools, incorporation of gravels to improve sediment substrate and overall channel heterogeneity, improvement to realignments by increasing sinuosity, improved planting along the floodplain and local measures to improve water quality such as planting (as committed to in RDWE 42 in the REAC [REP6-052]).

Table 2.5 of Chapter 2: The Proposed Scheme [APP-069] describes the proposed main river crossings, including the proposed realignments to Roman River, Rivenhall Brook and Domsey Brook, all of which are considered necessary to facilitate the proposed widening of the existing A12 or construction of the proposed new A12 alignment. Realignment of a section the Roman River south of the A12 is necessitated by the proposed widening of the southbound highway embankment. The realigned channel would be designed to match the existing channel capacity. Flood modelling shows the proposed scheme would have negligible impact on flooding, and therefore no flood risk mitigation would be required. It is proposed that the Rivenhall Brook would be realigned, and that the new A12 crossing of the river would be through a 46m long culvert structure. A 22m long raised flood mitigation bund would be placed along the right bank of the watercourse immediately downstream of the new Rivenhall Brook culvert to ensure the watercourse realignment would not result in any increased flooding to the western floodplain of the watercourse. The proposed scheme would require a slight realignment of the Domsey Brook (to the north-east). Flood modelling shows the proposed scheme would have negligible impact on flooding, and therefore no flood risk mitigation is proposed.

Co-Responder's Response (Q3.3.5 Sub-part 7)

Roman River Crossing This crossing has always caused problems for wildlife. The scheme presents an opportunity to improve on the current poor design, but that opportunity has not yet been taken. River processes are held up here by the current angles of poorly designed drainage, and the new proposals look likely to make this worse and compound this effect without any meaningful mitigation. We wish to see this crossing re-designed to provide mitigation for natural river processes and wildlife. We acknowledge that this may be problematic but unless dealt with these problems will remain. It would appear to require a completely fresh look.

Applicant's Response (Q3.3.5 Sub-part 7)

The Applicant has outlined their position within the Technical Note on Proposals for Main River Crossings [REP6-095] which includes the Roman River (pages 17, 27, and 34). Also see the Applicant's response at Deadline 6 [REP6-090; page 48] and the final version of the Statement of Common Ground with the Environment Agency [TR010060/EXAM/8.2] and Applicant's Comments on Information Received at Deadline 5 [REP5-002] with regards to the matters raised above including culverts, disapplication, and WFD compliance implications. The Applicant's position is that the environmental assessment has been undertaken in accordance with the National Networks National Policy Statement (see the NNNPS Accordance Tables [APP-251]) and in line with the mitigation hierarchy as presented in DMRB LA 104, whereby the Applicant has sought to avoid impacts where possible.

The Applicant has assessed the likely significant effects of culverting in Chapter 14 of the Environmental Statement: Road Drainage and the Water Environment [APP-081 [paragraph reference 14.11.39 and Table 14.16; and paragraph reference 14.13.1 to 14.13.17]]. Paragraph 14.13.18 and Table 14.19 of Chapter 14 [APP-081] conclude that the proposed scheme will not give rise to any significant residual effects.

The Roman River crossing is an extension to an existing culvert. No significant adverse effects were identified for the Main River crossings, including the Roman River, within the Environmental Statement or the Water Environment Regulations (WFD Regulations) Compliance Assessment [APP-159], and project design and mitigation for the Main River crossings do not significantly affect flood risk (Flood Risk Assessment [APP-162]).

The Applicant notes the concerns raised by the EA around the existing highways drainage outfall at the Roman River Culvert and the potential impacts it may be having on river processes. However, the Applicant contests the assertion that proposed culvert extension makes these matters worse. Under the proposed scheme this existing outfall is no longer required and will be removed. A new outfall is proposed downstream of the proposed culvert which will discharge via a new attenuation pond. This will provide water quality improvements through settlement and regulate discharge rates into the watercourse. This will improve the long-term wildlife benefits by reducing potential pollutants entering the watercourse and reduce the impact on river processes caused by high, turbulent flows compared to the existing condition.

Other environmental mitigation consists of mammal ledges on both sides of the extended culvert, which would benefit otter and smaller mammals such as water vole. Sediment will also be introduced along the extended culvert to act as natural flow regulation and provide overall channel heterogeneity. These measures would reduce impacts on riparian mammals and fish.

The position of the proposed drainage outfall, and the geometry related to the drainage connection, will be refined at detailed design to minimise its impacts on river processes. Appropriate scour protection will be provided to prevent localised erosion at the outfall.

Co-Responder's Response (Q3.3.5 Sub-part 8)

River Brain Crossing The current existing crossing has a high cill which forms an unnatural riverbed and holds up the water level upstream in Witham. The proposals should be revisited to see what improvements can be made here. The current result is a silty, slow flowing ponded section which then runs over a concrete bed which is very shallow and inhospitable for wildlife in summer. We request that this be a subject for mitigation and if possible a more natural meandering low flow channel be cut through the bed here.

Applicant's Response (Q3.3.5 Sub-part 8)

The Applicant acknowledges the points raised by the Environment Agency and is aware of the limitations that the existing high cill presents to any enhancement measures. As stated in paragraph 4.2.24 of the Applicant's Technical Note of Proposals for Main River Crossings [REP6-095], as part of the detailed design for the proposed scheme the Applicant would investigate potential opportunities for improvements to this crossing, such as the creation of rock rolls to improve flow locally at the crossing by reducing the channel width, increase depth and maintaining flow velocities.

It should be noted that in the Technical Note the Applicant concludes that there is no potential for significant effects on riparian mammals and fish at the River Brain Bridge as a result of the proposed scheme. Baseline surveys undertaken by the Applicant recorded evidence of otters east and west of the structure (as shown on sheet 2 of Figure 2 within Appendix 9.10 Riparian Mammal Survey Report [APP-134]), suggesting that this structure is currently permeable to otters and is therefore not a barrier to movement. Similarly, freshwater fish species have been recorded on both sides of the structure (from the Applicant's own baseline surveys and monitoring data from the Environment Agency and as presented in Appendix 9.1 [APP-125]). The proposed widening of the structure would not reduce its permeability to riparian mammals and fish – its large span and height would be maintained and no change in flow velocity is anticipated. In addition, natural substrates would be introduced along the riverbed to support natural flow regulation and improve overall channel heterogeneity (as per commitment RDWE42 of the REAC [REP6-052]).

Co-Responder's Response (Q3.3.5 Sub-part 9)

Mitigation The proposed mitigation for river species is currently insufficient and in some cases likely to be ineffective. For example, removing some macrophytes from a stretch that is silty and overgrown will not lead to a lasting improvement - the problem will return unless the root cause is assessed and any river morphology problem resolved. Similarly, in general clearing trees and scrub along watercourses is likely to do more harm than good. Planting more native trees and shrubs in a scattered mosaic to introduce partial shade and reduce the impact of climate change would be a useful proposal. The proposed river crossings appear to be designed as canalised drains, and risk repeating and compounding the mistakes that were made in the mid- twentieth century. The crossings need to be rethought as part of a functioning river system and designed to deliver the fully functioning ecosystems that we need for an uncertain future. If the crossings concept is led by fluvial geomorphology and ecology they will also provide drainage solutions. Any engineering solutions that are needed should be assessed holistically and collaboratively. There is the potential for biodiversity to be significantly adversely affected with the proposals as they are presently set out, and we could not currently agree that the new crossings would result in neutral impacts on fish and otter. We would like to see some new meandering sections designed to compensate for the lengths of river darkened by increased crossing length. We suggest that a further meeting is held to assess and review the river crossings mentioned above. We have not reviewed mitigation proposals for other species and habitats but these river works appear to be unnecessarily damaging and should be ameliorated before moving on to the next stage. Once that is done we would encourage a reconsideration of relevant and effective mitigation.

Applicant's Response (Q3.3.5 Sub-part 9)

The Applicant acknowledges the concerns raised by the Environment Agency and responds accordingly under subheadings below.

Vegetation Clearance Mitigation Proposals

Regarding the clearance of vegetation (including trees and scrub) the Applicant is committed to retaining existing vegetation as far as reasonably practicable as per commitment LV4 of the REAC [REP6-052]. Particular attention would be given to the retention of mature vegetation, including bankside vegetation, which would be retained in accordance with, as a minimum, the Retained and Removed Vegetation Plans [REP6-032 and REP6-033]).

The Applicant acknowledges the suggestion from the Environment Agency regarding the provision of mosaic habitat planting and will consider this at detailed design. The proposals as outlined in paragraphs 9.10.117 to 9.10.120 of Chapter 9: Biodiversity [APP-076] present proposed enhancements for the Boreham Brook, Rivenhall Brook and Domsey Brook (both subreaches unless specified otherwise), which include:

- creating a 10m buffer zone either through fencing where practicable or landscaping (leaving the area to rewild) to allow for a natural riparian zone and habitat creation
- planting of trees and/or saplings along both banks (tops and faces)
- placing large wood along both bank tops and bank faces to improve habitat potential (except Domsey Brook subreach 1)
- planting reeds and emergent plants along both banks (except Boreham Brook) to increase habitat diversity

These measures would allow for the creation of a mosaic habitat.

The Applicant confirms that there are no proposals to remove macrophytes from any watercourses across the proposed scheme.

Significant adverse effects

The Applicant refers to the Technical Note on Proposals for Main River Crossings [REP6-095] which sets out the pathways to impacts on biodiversity at each of the main river crossings and demonstrates how the Applicant has concluded no significant adverse effects on riparian mammals and fish. This assessment has been carried out in accordance with Table 3.13 of DMRB LA 108 where riparian mammals and fish are assessed as County level receptors.

Proposed Main River Realignment

The Applicant refers to the response provided within sub-part 6 with respect to the proposed main river realignments.

Further engagement

A meeting was held between the parties on 26 June 2023 to discuss the SoCG; the Main River crossings technical note was not discussed.

Co-Responder's Response (Q3.3.5 Sub-part 10)

We reiterated our concerns in our response to the further section 42 consultation (Our reference AE/2021/126293/02-L01, dated 17 December 2021), extract below: Additional comments We would also wish to take this opportunity to re-state the significant concerns that remain in respect of the main river crossings proposed as part of the overall scheme, and the resulting impact on the biodiversity of the river ecosystems. As previously highlighted, the new river crossings appear to be similar to the existing structures, rather than making use of updated and improved design to better accommodate wildlife and reduce impacts on biodiversity as a whole. We are concerned that the overall proposals will compound the existing environmental damage without providing significant mitigation or enhancements to the river ecosystems that are crossed. As an example of impacts, we recommend that the project team investigate Cardiff University Otter Project recent mapping of otter deaths across the UK (Laird and O'Rourke 2021). The map shows otter death locations as dots on a small scale plain background. Despite the low key map produced, one pattern shows up clearly. The alignment of the A12 stands out as a series of otter death blackspots more distinctly than any other road in the UK. The result is a significant and devastating representation of the results of previous poor road crossing design. The road crossings proposed as part of this scheme must not exacerbate this situation. This proposed development offers an ideal opportunity to investigate and re-examine the adverse environmental effects caused by previous road schemes, and to deliver solutions that resolve the on-going problems caused. National Highways should consider all options and resources that may be available to enable this to occur. The current proposed designs do not appear to reflect the significant ecological issues at the river crossing locations, and need to go further to be able to demonstrate no net loss of biodiversity and biodiversity net gain.

Applicant's Response (Q3.3.5 Sub-part 10)

The Applicant notes the points raised by the Environment Agency.

While the Applicant recognises that DMRB LD 118 states '*environmental assessment reports should identify opportunities to address historic impacts from motorway and all-purpose trunk roads on biodiversity resources*', it should be noted this falls under the category of 'enhancement' as opposed to mitigation impacts of the proposed scheme. Although the Applicant has sought reasonable opportunities for enhancements, it is not the objective or responsibility of the proposed scheme to demolish and rebuild sound structures, despite any historical environmental issues.

Otter impacts and mitigation

The Applicant is familiar with the Cardiff University Otter Project, having previously responded on this particular matter in 1.3.4 to 1.3.5 of the Applicant's Comments on Written Representations [REP3-009]. The Applicant does not agree with the Environment Agency's conclusion that the existing A12 'stands out as a series of otter death blackspots more distinctly than any other road in the UK'. In fact, the interactive map of otter casualties published by the Cardiff University Otter Project includes records of only three otter deaths consistent with collisions with vehicles along the existing A12 between junctions 19 and 25, across a 10-year period, from 2009 to 2019. The proposed main river crossings along the proposed scheme are not considered to introduce any new barriers to the movement of otters, and in some areas, there will be an improvement on the baseline due to the retrofitting of mammal ledges within existing structures (as per commitment B132 in the REAC [REP6-052]) and the introduction of otter fencing where there currently is none.

Furthermore, Wilkinson and Chadwick (2012) suggest that:

- *'Culvert design often leads to faster flows, which otters may be reluctant or unable to swim through in strong currents.'* For all main river crossings, there is no predicted increase in flow velocity, and the likelihood of this happening is further reduced through the introduction of sediments within the channel to act as natural flow regulation (as per commitment RDWE42 of the REAC [REP6-052]).
- *'In some cases, passage is blocked by a weir or by debris, culverts are too narrow to allow passage, or are inclined and too slippery for otters to gain purchase.'* The proposed scheme has designed culverts in accordance with CIRIA C786 (Culvert, screen and outfall manual, Benn et al., 2019) and, as shown in Table 3.1 of the Technical Note on Proposals for Main River Crossings [REP6-095], both of the new proposed culverts (Rivenhall Brook and Domsey Brook (east)) are considerably taller than the minimum required height for CIRIA compliance. It should also be noted that the heights of the existing culverts are also CIRIA compliant.
- *'Road underpasses may take the form of either ledges or dry culverts under bridges, in combination with appropriate fencing to guide otters towards mitigation / away from threats.'* The Applicant has designed a suite of mitigation for otters, which includes the provision of mammal ledges (including retrofitting of ledges to existing structures (as per commitment B132 in the REAC [REP6-052])) and the provision of otter fencing either side of new proposed culverts (where none currently exists).

Biodiversity Net Gain

National Highways' policy requires that it must deliver no net loss of biodiversity and that by 2040 it must deliver a net gain in biodiversity. The Biodiversity Net Gain Report [APP-138] identifies that the proposed scheme will deliver a 28.40% gain of habitat, 34.49% gain of hedgerows and 156.73% gain of rivers (that being rivers and ditches) (as presented in Table 9.2 the ES Addendum [AS-098]). This is substantially greater than the provision for the anticipated mandatory requirement to provide a 10% net gain associated with the recent Environment Act, although it should be noted that there is currently no statutory requirement for Nationally Significant Infrastructure Projects to provide BNG.

Natural England's methodology (Metric 3.0) increases the Rivers and Streams biodiversity unit by 156.73% (including 0.36% for rivers). The Natural England methodology followed combines watercourses into a single 'Rivers and Streams' measure and does not differentiate between Main River and Ordinary Watercourse designations, only between ditches and other watercourses.

Co-Responder's Response (Q3.3.5 sub-part 11)

The issue has also been discussed during pre-application meetings. Most notably those taking place on 15/09/21 and 22/11/21, which were arranged to discuss the points made in our PEIR response. At the WFD and Hydrology update meeting of 10/07/20 we highlighted the adverse impacts of the existing A12 main river crossings and the opportunity that this project presented to resolve those issues.

Applicant's Response (Q3.3.5 sub-part 11)

The Applicant has put forward the proposed design and the environmental impact assessment in the Environmental Statement Chapter 14 Road Drainage and the Water Environment [APP-081, and in the Environmental Statement, Appendix 14.2 Water Environment Regulations (WFD Regulations) Compliance Assessment [APP159]. The Applicant does not accept that there are significant adverse effects and does not accept that the WFD is non-compliant.

The Applicant has produced the Technical Note on Proposals for Main River Crossings [REP6-095] to explain its position on culverts in addition to previous written representations submitted. The EA's views on the PEIR were taken into account and any outcomes from the consultation meetings were taken forward into the Environmental Statement as far as was reasonable and

practicable to do so. Since the PEIR response and the hydrology meeting, there has been regular and ongoing engagement on points raised. The position between the two parties has remained the same.

Q3.5.1	CMS LLP on behalf of Legal & General Investment Management Ltd
Examiner's Question	
<p>We are now over two thirds through the statutory period for the Examination. The latest CA schedule [REP-019] indicates that there are still 55 objections to be resolved. The ExA is expecting real progress can be made in the remaining 8 weeks with these negotiations and can the Applicant provide some reassurance about this? A further CA hearing has been scheduled for Tuesday 27 June in view of the number of outstanding objections.</p>	
Co-Responder's Response	
<p>As outlined in L&G's submission to the Examination dated 28 February 2023 [REP3-048] and response to ExQ2 dated 11 April 2023, L&G and the Promoter have been actively engaged in negotiations regarding how the Promoter's acquisition proposals can be managed outside the DCO process in order to minimise the impact on L&G's tenants and its operations on the Estate. The CA schedule [REP-019] identifies L&G's objection as outstanding, and this remains the case. Limited progress has been made since L&G's response to ExQ2 dated 11 April 2023, as L&G is still awaiting the Promoter's final comments on the draft Heads of Terms and confirmation regarding responsibility for preparing the first draft of the agreement itself. Without this information L&G is unable to progress the agreement. L&G is concerned about the limited amount of time left in the Examination period to reach agreement with the Promoter. L&G notes that a further Compulsory Acquisition Hearing is being held on 27 June. If significant progress is not made with the Promoter in advance of this hearing, L&G intends to register to participate in the hearing to outline its concerns. L&G will continue to participate in the Examination and reserves the right to make further submissions and objections in respect of the DCO scheme should final agreement not be reached with the Promoter.</p>	
Applicant's Response	
<p>In respect to the objection raised by Legal and General in their submission to the Examination dated 28 February 2023 [REP3-048]; The Applicant has now agreed Heads of Terms with the Interested Party and confirmed the preference for the Interested Party to prepare the first draft of agreement on this basis. Regular communication between the two parties is ongoing and the Applicant remains committed to progressing these negotiations in the remaining weeks of the examination.</p>	

Q3.5.6**Pinsent Masons LLP on behalf of Royal London UK Real Estate Fund and Edmundson Electrical Limited****Examiner's Question**

It was said at CAH2 that the Applicant would try to facilitate the position so that discussions could take place direct between the Interested Party and Cadent Gas especially since it is Cadent who will be undertaking any construction work. Has this been arranged?

Co-Responder's Response

A12 CHELMSFORD TO A120 WIDENING SCHEME – TR010060 DEADLINE 6 SUBMISSION – RESPONSE TO EXQ3 Q3.5.6 ROYAL LONDON UK REAL ESTATE FUND AND EDMUNDSON ELECTRICAL LIMITED 12 JUNE 2023

1. This submission is made by Pinsent Masons LLP on behalf of its clients Royal London UK Real Estate Fund (Royal London) and Edmundson Electrical Limited (EEL) in response to Q3.5.6 of the Examining Authority's written questions and requests for information (ExQ3), issued on 22 May 2023.

2. A meeting between our clients and Cadent Gas Limited, as discussed at Compulsory Acquisition Hearing 2 on 27 April 2023, has not yet taken place. We have been in contact with National Highways (the Applicant) and requested an update on the position but are awaiting a substantive response. Our clients remain keen to have discussions with Cadent Gas Limited as soon as possible. As the Applicant has identified previously, it will be Cadent who will be carrying out the gas diversion works and require the access and rights to our clients' land interests. As such, it is Cadent Gas Limited who need to confirm and respond to a number of the questions we have raised, including whether the proposed access is sufficient and suitable for the works intended.

3. In addition, Royal London considers that the same dialogue is required with UK Power Networks (Operations) Limited (UKPN). This is due to the likely role UKPN will play in undertaking Work No.U2A, relating to the diversion of an overhead electricity cable on plot number 1/10c, as provided for under article 12(5)(e) of the draft DCO [REP5-004]. Royal London would welcome the

Applicant facilitating this discussion. There has to date been little information and discussion on the overhead electricity cable diversion but given the Applicant's responses to previous questions raised in relation to the gas diversion works, it is clear that the two elements of works need to be properly co-ordinated and considered.

Applicant's Response

2. As noted at Deadline 6, the Applicant has now shared direct correspondence from Cadent relating to the apparatus and the AGI. Should further information still be required, we would look to arrange a meeting between the parties.

3. The Applicant's continuing detailed design activity has suggested that it might not be necessary to divert UKPN's overhead cables but for the adjacent works to the gas main giving rise to the need to do so. Further detailed design relating to the gas main diversion is still required and its associated temporary works may necessitate a diversion of the cables to ensure a safe working environment for the gas main diversion. None of the potential design outcomes would reduce the area of the Order Land required at this location.

The Applicant would support and facilitate discussions between the Applicant, UKPN and the landowner.

Q3.5.7	National Farmers Union
Examiner's Question	
<p>The Applicant explained at CAH2 that a mechanism for the landowners of the four Borrow Pits to retain possession of the land had been agreed and it is appreciated that this differs from other landholdings in view of the long-term mitigation required. However, the Applicant does say at ExQ2 2.5.12 that there is “no legal mechanism that would appropriately protect it from potential criminal liability.” In view of the agreements being negotiated with the Borrow Pit landowners, this would not appear to be the case. Can the Applicant comment further? It is noted that the NFU have at REP4-093 referred to a relatively simple mechanism which includes a right of entry for the Applicant in the event of non-compliance.</p>	
Co-Responder's Response	
<p>1.0 Introduction</p> <p>1.1 Submissions on behalf of the National Farmers Union (“NFU”) in respect of the application for a Development Consent Order (DCO) by National Highways (NH) for the A12 Chelmsford to A120 Widening Scheme. The NFU is making a case on behalf of its members who are affected by the proposed DCO.</p> <p>2.0 Third Written Questions:</p> <p>2.1 Compulsory Acquisition, Temporary Possession and Other Land or Right Considerations Q3.5.7 : Environmental Mitigation Agreements</p>	

The NFU are aware that where National Highways are required under the Development Consent Order (DCO) to provide ecological mitigation, any non-compliance of this requirement would put them in breach of the DCO. The NFU understands that failure to comply with the terms of the DCO, could result in criminal liability under the Planning Act 2008.

The NFU, however would like to reiterate that where a landowner wishes to retain land that is used for environmental mitigation and are willing to enter into a management agreement, then they would comply with the terms rather than the land be acquired permanently. As outlined within REP4-093, the NFU would expect the drafting of the agreement to reserve the right for National Highways to monitor that the obligations under the agreement are being carried out, and in the event of non-compliance the applicant would have the right to enter upon the land and carry out the maintenance themselves to ensure that they were able to meet their obligations under the DCO. This would enable National Highways to ensure that environmental mitigation areas are managed and monitored and provides the ability for National Highways to retain the right to carry out the management of the areas in the event of non-compliance to avoid any potential criminal sanctions.

Applicant's Response

Borrow pits are required to mitigate the construction impacts of the proposed scheme and are not required after construction once the road has been built. The essential ecological mitigation is required to mitigate the impacts of the proposed scheme, specifically on reptiles, and is therefore required to remain in perpetuity. Consequently, it is possible to return the land used for the borrow pits to the landowner in a different form as it is not required for on-going mitigation after construction of the proposed scheme.

The Applicant, therefore maintains its position as set out in ExQ2 2.5.12 [REP4-055] as shown below.

The Applicant explained in its Written Submission of Oral Case for Compulsory Acquisition Hearing [REP3-014] that not owning the freehold of the land required for essential mitigation would expose the Applicant to the risk of criminal sanctions due to a breach of the DCO were any subsequent disposal to be made of the land or any management agreement breached. As explained in those written submissions, the Applicant's only remedy in such circumstances would be to seek to enforce the management agreement against the landowners in the civil courts, whilst itself facing criminal liability.

Criminal liability cannot be 'contracted out' or transferred by legal agreement and therefore it is the Applicant's view that there is no legal mechanism that would appropriately protect it from the potential criminal liability referred to.

Q3.5.9	Essex County Council
Examiner's Question	
<p>As indicated at both CAH1 and CAH2, the position over Colemans Quarry was not clear to a number of Interested Parties and also to the ExA. This has now been explained further with the Borrow Pits summary [REP5-015] and also the officer report to Essex County Council in respect of the planning application. The uncertainty has to some extent arisen over the delays in the grant of planning permission which was approved by Essex County Council in January. What are the reasons for delay in completing the section 106 agreement and is this likely to be finalised any time soon?</p>	
Co-Responder's Response	
<p>The legal agreement to accompany the variation to the operating procedures at Coleman's Quarry is still out to comment between ECC and the applicant. It is not possible to give this a time to give a date by which it is expected to be completed.</p>	
Applicant's Response	
<p>The legal agreement is between Essex County Council and Brice Aggregates Limited (the owner of Colemans Quarry). The Applicant is not party to this agreement or any discussions between the two parties so is not in a position to provide an update.</p>	

Q3.5.10	Stanfords on behalf of J A Bunting & Sons
Examiner's Question	
<p>Following from the previous query at Q3.5.9 above, if it is possible to import 650,000 cubic metres from external sources, then if this contingency supply is not required at Colemans Quarry, is it not possible for these materials to be used for the Project which would reduce the requirement for the four Borrow Pits identified? The reasoning provided by the Applicant in REP5-020 is noted. -</p>	
Co-Responder's Response	
<p>Q3.5.10 Question - Following from the previous query at Q3.5.9 above, if it is possible to import 650,000 cubic metres from external sources, then if this contingency supply is not required at Colemans Quarry, is it not possible for these materials to be used for the Project which would reduce the requirement for the four Borrow Pits identified? The reasoning provided by the Applicant in REP5-020 is noted.</p> <p>Borrow Pit J in fact consists of four separate pits separated by hedgerows. The import of material could enable the loss of one or a number of pits which make up Borrow Pit J which would minimise the impact on the Bunting's farming operation. The Buntings preference would be pits are removed from the proposals in an east to west direction (from the proposed junction 24 towards Highfields Lane).</p>	
Applicant's Response	
<p>The Applicant has responded to the Examiner's question, Q3.5.10, in the Applicant's Responses to ExQ3 [REP6-089] to clarify why importing the contingency volume of general earthworks fill material does not reduce the requirement for Borrow Pit J.</p> <p>To summarise briefly, Borrow Pit J would still be required to provide 300,000m³ of granular engineering fill (which is a separate requirement to general earthworks fill), as explained in paragraph 6.4.14 of the Borrow Pits Report [APP-278] and detailed further in Plate 2.2 of the Borrow Pits Summary Report [REP5-015].</p>	

Further to this, the preferred use for the overburden of 300,000m³ from Borrow Pit J would be to restore Borrow Pit J so as to reduce the impacts on the ongoing farming business unless it is required as a contingency for Coleman's Farm Quarry backfill.

Borrow Pit J is separated into four cells to enable mineral extraction in a phased manner, which is a standard practice for mineral extraction, and to minimise environmental impacts on existing hedgerows and minor watercourses. Having to manage ground water and temporarily store topsoils and overburden material for restoration requires a significant amount of space, which is why the borrow pit has to be worked in separate cells as opposed to a single large excavation.

The Applicant has noted the Interested Party's preference for the order of 'pit removal' and will consider this in the Borrow Pit J restoration proposals to further progress negotiations in returning the land to the Interested Party upon completion.

Q3.5.13**Stanfords on behalf of J A Bunting & Sons****Examiner's Question**

The owner of the fourth Borrow Pit is the Bunting family (Pit J) and their adviser raised a number of questions at CAH2. These may to some extent have been answered in the latest Borrow Pits Summary and an update is requested from both sides? -

Co-Responder's Response

Q3.5.13 Question - The owner of the fourth Borrow Pit is the Bunting family (Pit J) and their adviser raised a number of questions at CAH2. These may to some extent have been answered in the latest Borrow Pits Summary and an update is requested from both sides?

Our response to this depends upon the extent to which the latest Borrow Pits Summary report addresses the queries at Issue Specific Hearing 3. On that basis we comment thus based on the numbering used in NH document 9.53 Written submission of oral case for Issue Specific Hearing 3' (referenced TR010060/EXAM/9.53 and dated 10/05/23)

6.2 The NH response indicates that the original Borrow Pits report (ref TR010060/APP/7.8 Rev 1 dated August 2022) did not include 445, 000m³ of granular engineering fill' as this report focused on four borrow pits and excluded materials expected to be won from off site' " we understand this to mean that originally it was assumed that the granular engineering fill would be imported from off site, not won from Borrow Pit J. It is noted that the Supplementary Borrow Pits Report (referenced TR010060/EXAM/9.12 indicated and dated 30 January 2023) indicated 425 000m³ of such material was needed but that NH's response and recently provided Borrow Pits Summary Report (referenced TRP10060/EXAM/9.59 and dated 10 May 2023) now indicate 445 000m³. Based on NH's response, it appears that of the 445 000m³ of granular engineering fill' 300 000m³ is now required from Borrow Pit J. So 145 000m³ is to be imported, this being indicated to be higher quality' aggregates that cannot be obtained from Borrow Pit J or elsewhere on site.

From the above it would appear that originally NH assumed that 445 000m³ of 'engineered granular fill' would be imported from off-site sources and we assumed that they had budgeted for that. After the original borrow pit report was written NH then decided to reduce that to 145 000m³ by deciding to excavate 300 000m³ of such material from Borrow Pit J. Why was this change made? What was wrong with the offsite source originally assumed? The response indicates that the granular soils from Borrow Pit J is to be used as Class 6 (selected granular fill for specific engineering applications) and could be used as Class 1 fill 'if required'. It remains unclear as to what is the volume of Class 6 material required for the project "NH to confirm. It remains unclear as to what 'if required' means. What would trigger the use of Class 1 material from Borrow Pit J? This should be confirmed by NH. How might the risk of triggering requirements/event be minimised by NH?

NH indicate that the overburden will be used to backfill Borrow Pit J, at least in part, if these materials are not used to backfill Colemans Quarry. However, it remains unclear from the response as to how the quarry operator is being incentivised to meet the programme.

Borrow Pits Summary Report (referenced TRP10060/EXAM/9.59 and dated 10 May 2023) indicates that the planned works for Colemans Quarry include 600 000m³ of imported fill. Why can this not be increased to 950 000m³ for the contingency plan rather than using the overburden from Borrow Pit J? It is just a contingency and NH seemed confident the risk of this contingency plan being adopted is low. This would give the Bunting Family confidence that Borrow Pit J could be backfilled, at in least in part, with the overburden materials (which are likely to be more suitable to their needs than Class U1A materials as discussed below)

6.4 It is already known from previous supplied documents that some of the materials excavated from the main works may contain elevated concentrations of sulphur bearing compounds and so may have a potential risk of heaving if treated with lime. It would seem that NH have assumed that this risk is sufficiently high (even if additional or other additives are used) based on initial testing to determine the TPS alone. It remains unclear if NH have undertaken heave testing to confirm their assumption. It would seem not from their response, otherwise they would have explicitly said so. It remains unclear as to what trials using other additives or combination of additives have been undertaken to confirm whether or not they could address the potential heave issue (if indeed an actual issue). It would seem not from their response, otherwise they would have explicitly said so. The response therefore does not address our concerns. We are keen for the excavation of Borrow Pit J to be minimised through maximising the reuse of soils arising from the main works and this possibility does not seem to have been considered in suitable detail. Maximising the reuse of

site won soils (which may otherwise be discarded) arising from the main works may bring a number of cost and environmental benefits. We would suggest that NH do not rule this option out until further testing is undertaken to confirm matters.

6.3 raised by others The response seems to discuss all the borrow pits and indicates NH intend to win earthworks material above the groundwater table'. We welcome this, however, this is caveated with the works as far as practicable'. How is practicable' determined, by whom and based on what basis?

6.9 NH do not indicate a suitable specification for the placement and compaction of the materials to backfill Borrow Pit J. By definition Class U1A materials do not comply with the Specification for Highways works and this is also re-iterated in the response (unsuitable for engineering purpose'). Consequently they are likely to be difficult to compact to suitable specification to form a development platform required for the intended redevelopment of the site. Although not re-stated in the response it was understood from NH that decayable materials will not be included in the materials to be placed. As NH have not provided a specification and given the nature of backfill materials, WSP (on behalf of the Buntings) could suggest a specification to them. For example, an end product specification suitable to form a development platform " with NH then to determine whether and how they could treat/modify, place and compact Class U1A materials to meet such an end product specification. This could be discussed with NH alongside the following items.

NH are willing to explore the possibility of excavating above the groundwater table. While this is an open ended and non-committal statement, it is nevertheless welcome. However, clarification is required in respect of how and when such discussions are to take place? Also see item 6.3 above.

NH are willing to explore the possibility of backfilling to above the groundwater table. As above, while this is an open ended and non-committal statement, it is nevertheless welcome provided that the materials are placed to a suitable specification " see above. As above, clarification is required in respect of how and when such discussions are to take place? 6.10 The response confirms that the cost assessment does include for dewatering activities. The response refers to Borrow Pits Cost Information [REP3-023] Appendix 4, Table 4.4 item 100.01 Temporary works'. We assume NH mean 100.02 Dewatering BP J' of Borrow Pits Summary Report (referenced TRP10060/EXAM/9.59 and dated 10 May 2023). This is costed at £649,000. It remains unclear as to what form

of dewatering is anticipated to inform this costing. This should be confirmed by NH. The original Borrow Pit report (ref TR010060/APP/7.8 Rev 1 dated August 2022) suggests pumping from sumps. Are NH confident that this is appropriate given the shallow groundwater level anticipated, relatively high permeability of the deposits they intend to excavate, the proximity of the R. Blackwater? Also does this include the suitable disposal of the pumped water, bearing in mind that part of the site seems to have been used as a landfill (although not fully investigated by NH at this stage). Such considerations may impact on the assumed unit cost of soils from Borrow Pit J and this in turn may make alternative sources more appropriate. These matters should be considered by NH.

We remain keen to continue to engage with National Highways to try to resolve the principles of our objection, but in the absence of reaching an agreement with National Highways, our position remains that we strongly object to the proposed Order.

Applicant's Response

The Applicant responds by using the numbering in the above question.

6.2

REQUIREMENT FOR BORROW PIT J

The Interested Party's understanding of the response provided in the Applicant's Written submission of oral case for Issue Specific Hearing 3 [REP5-020] is incorrect. Whilst the original Borrow Pit Report [APP-278] is correctly mentioned, the relevant parts that explain this are not. Specifically, paragraph 1.1.4 which states "While the borrow pits are anticipated to meet the earthworks general fill material deficit and granular material requirement, high quality aggregates that are not available within the borrow pit locations would still need to be imported". As well, paragraph 6.4.13 states "The borrow pit (Borrow Pit J) is primarily intended for the extraction of granular material for use across the proposed scheme as selected fill material and other construction aggregates".

The stated need for Borrow Pit J has therefore always been to provide granular engineering material for the proposed scheme and the Applicant has been clear from the start that other high-quality aggregates, that cannot be sourced from borrow pits on the scheme will need to be imported.

STATED QUANTITIES OF GRANULAR ENGINEERING MATERIAL

Regarding the quoted quantities, both figures (425,000m³ and 445,000m³) are given in the Borrow Pits Supplementary Technical Note [REP1-011] and do not differ across the various reports submitted through the examination process. The figure of 425,000m³ of granular material is the calculated granular engineering fill (Class 6) required, seen in Table 3.2 of the report. The figure of 445,000m³ of granular material is the rounded value (from the above calculated value) seen in paragraph 1.1.5 of the same report. The calculated values are rounded to account for any reasonable inaccuracies based on a scheme at this level of development. It is the rounded values that have been carried through the environmental assessment and examination at all stages of reporting for consistency.

In conclusion, it has always been the position that 445,000m³ of granular engineering material is required, even though the specific figure was not included in the original report for the reasons given in the Applicant's Written submission of oral case for Issue Specific Hearing 3 [REP5-020] part 6.2, and that 300,000m³ of this requirement can (and is intended to) be met by Borrow Pit J.

USE OF GRANULAR ENGINEERING MATERIAL FOR THE PROPOSED SCHEME

Examples of the applications for the granular engineering material to be won from Borrow Pit J are given in the Borrow Pits Supplementary Technical Note [REP1-011] Section 3.2 and include the following:

- Structural fill material to reinforced earthworks
- Backfill to structures
- Capping material to road pavement formation

The Applicant has also reserved the right to use the granular material won from Borrow Pit J as a Class 1 general fill to take advantage of efficiencies in design as they become apparent during the detailed design phase.

One such example would be to utilise the granular material as a Class 1 ground improvement layer to the pavement foundation to enable efficiencies in the overall pavement thickness to reduce the carbon footprint and embedded carbon generation (associated with importing capping material by road, rail and sea) and the cost associated with it. These efficiencies will be assessed in a holistic manner to earthworks and pavement design to ensure the most suitable approach is chosen based on the environmental impact and costs to the proposed scheme.

BACKFILL OF COLEMAN'S FARM QUARRY

The Applicant made it clear in its Deadline 5 Submission - Written submissions of oral representations made at Hearings [REP5-020] part 6.2 that the gist of the commercial agreement that the Applicant has entered into with the quarry operator includes the opportunity to:

- Sell any won aggregates, that would otherwise be sterilised by the proposed scheme
- Offer a disposal site, for construction, demolition and excavation waste at commercial rates.

To simplify this explanation further, the quarry operator is incentivised to maximise returns by backfilling the quarry to the agreed specification before the start of construction, after which those returns will be limited.

COLEMAN'S FARM QUARRY CONTINGENCY PLANNING

Regardless of how low the risk is considered to be for the contingency requirement of backfilling the quarry, the mitigation still needs to be a reasonable and buildable plan. Whilst the risk of the contingency is very low, there are still no guarantees that it may not be needed. It would be unreasonable for the Applicant to assume that the full volume of 950,000m³ could be won from external sources by road in the timescales and budget presented. Therefore, to secure these aspects for a buildable plan the Applicant has included the use of the overburden material from Borrow Pit J.

As presented in all previous borrow pit reports, winning this material from a borrow pit is the best performing approach considering the impacts from construction traffic on greenhouse gas emissions, construction cost and programme. Borrow Pit J overburden provides a suitable source of contingency backfill material should it be needed because it is not required for building other aspects

of the scheme. Its only other use is in the restoration of Borrow Pit J. As a reasonable worst case the Environmental Impact Assessment has not considered any backfill of overburden material in Borrow Pit J.

6.4

HEAVE TESTING

An initial screening assessment has been undertaken of Total Potential Sulphate (TPS), Oxidisable Sulfate (OS) and Water Soluble Sulphate (WSS). The results indicate variable and often high sulphates (>1% SO₄) in both the soils and groundwater. In the top 10m below top of strata level for the Lowestoft Formation, which forms the bulk of cohesive material that will be won from the scheme that could potentially provide the volume required to be stabilised to form an improvement layer, the results indicate approximately 41% of TPS and OS results were >1% SO₄, with 17% and 12% respectively >2% SO₄. A greater degree of caution with regard to potential chemical heave is required where materials record TPS and OS values >1% SO₄. The variability of the results (site wide and anticipated in individual trial pits) means that obtaining representative samples for heave testing (for practical purposes the representative value could be taken as the mean of the highest 20% of results, in this case TPS = 2.4% SO₄) in order to determine the optimum mix would be extremely challenging. A relatively large percentage of binder would be anticipated (most likely Ground Granulated Blastfurnace Slag (GGBS)) as well as the lime requirement which would have a high carbon cost.

In order to manage risk during the works Britpave's Stabilisation of Sulphate-Bearing Soils, Guidelines for Best Practice, 2019, recommends extensive testing for sulphates during the works including testing on blended materials, in order to confirm there are no sulphate 'hotspots'. Any materials identified as higher than the worst-case representative concentrations on which the optimum mix of lime and binder were based must be rejected. In practice, and given the nature of the materials and variability of the concentrations, this approach is unlikely to be practicable with a significant risk of large volumes of material being rejected, and / or materials with high TPS / OS hotspots being missed. For the above reasons no heave testing was undertaken of cohesive soils in relation to stabilisation with lime / binders, as the residual risks are considered unacceptable.

In addition, Manual Contract Document for Highways Works, Volume 1 – Specification for Highways Works, Clause 601)16 ii b states that materials placed with 500mm of Cement Bound Material (CBM) shall have acid soluble sulfides <0.5% SO₄. As the

improvement layer will be within 500m of the CBM, and 52% of the OS values in the upper 10m below top of strata for the Lowestoft Formation are >0.5% OS, the materials are not compliant and stabilisation is therefore not viable.

6.3

EXCAVATION BELOW THE GROUNDWATER TABLE

If excavations in borrow pits carried out above the groundwater table yield the quality and quantity of material required for the proposed scheme, then there will be no need to excavate material from below the groundwater table.

If the required quality and quantity of material is not able to be won from excavations above the groundwater table, then borrow pit excavations will need to extend below it, potentially down to the maximum depths stated in the Borrow Pits Report [APP-278].

With the information available, it has been determined that dewatering is likely to be required for the excavation of granular engineering material in Borrow Pit J. This is because of the presence of groundwater within the granular material. As such the impact has been assessed in the EIA and appropriate mitigation has been secured in the Register of Environmental Actions and Commitments (REAC) [REP6-052] in GS4, GS7 and GS8.

6.9

SPECIFICATION OF BORROW PIT J RESTORATION

As the Applicant has previously stated, the earthworks material volume deficit means that the borrow pits cannot be backfilled to previous (existing) ground levels. Therefore, it would not be appropriate for the Applicant to define a specification for the backfill of Borrow Pit J.

If the overburden material of Borrow Pit J is not required for the contingency event in Coleman's Farm Quarry, the intention is to use it to restore the borrow pit void once the granular engineering materials required for the proposed scheme have been excavated. The Applicant is willing to work with the landowner to define suitable parameters to attempt to restore its previous land

use, as far as practicable, through the restoration of Borrow Pit J with the remaining material resource available (overburden material plus any unsuitable material required to be returned to the borrow pit).

Any restoration proposals agreed would have to meet the restoration design principles outlined in the Borrow Pits Report [APP-278] section 4 that are secured in the REAC [LV17]. However, for the avoidance of doubt, in section 6.9 of the Applicant's Written submission of oral case for Issue Specific Hearing 3 [REP5-020] it has been confirmed that materials specified as U1A within the Manual of Contract Documents for Highway Works (MCHW), Specification for Highway Works (SHW) volume 1 may be used to restore Borrow Pit J in response to Mr Dent's question.

By definition of the SHW, Class U1A materials include those with logs, stumps and perishable material. Therefore, the Applicant has been clear on the fact that decayable material could be included in the restoration of Borrow Pit J.

Discussions have started regarding the restoration proposals for Borrow Pit J with the interested party. The most recent meeting to discuss this was the 12 June 2023.

6.10

DE-WATERING COSTS FOR BORROW PIT J

The reference to the Borrow Pits Cost Information [REP3-023] Appendix B Table 4.4 item 100.01 is correct. However, it should be noted that there are two items numbered 100.01. This is why the Applicant stated in the response to 6.10 of the Applicant's Written submission of oral case for Issue Specific Hearing 3 [REP5-020] that the figure being discussed is included under the subtitle 'Temporary Works'. The Interested Party (IP) have been able to ascertain the correct financial value associated with dewatering Borrow Pit J.

This value has been determined alongside input from specialists with prior experience in dewatering activities of similar borrow pits on previous Nationally Significant highway schemes.

Groundwater monitoring activities which have been continued since installation have shown relatively deep ground water levels in the areas looking to be excavated. Therefore, with the specialist input and ground information available, the Applicant is confident that the costs and indicative method of dewatering Borrow Pit J mentioned in the Borrow Pits Report [APP-278] paragraph 6.4.25 (ditches and sump pumping at low points) is suitable and sufficient. The Applicant is continuing to work with specialists through the detailed design of the proposed scheme to further refine the method and cost of dewatering Borrow Pit J.

In regard to the effect of cost increases in the unit cost of the material to be won from Borrow Pit J, the dewatering costs are a relatively small portion of that unit value, especially when compared to the alternative of transporting granular engineering fill material onto site, and therefore any movement in this value only has a small effect on the unit cost and are highly unlikely to render the borrow pits option uneconomical.

In regard to the potential presence of contaminated ground and its effect on pumping activities, this has been responded to in relevant representation RR007-025 point 33.3, in the Applicant's Response to Relevant Representations [REP1-002]. Further to this the findings presented in the Environmental Statement Appendix 10.1 Land Quality Risk Assessment show that of the 49 samples taken in Borrow Pit J no exceedances were seen in the generic screening criteria for soils. Specific mitigation for dewatering activities is secured through the REAC (as discussed in 6.3 and 6.9 above) to prevent adverse impacts of mobilising contaminants within the ground. In particular:

- GS1 and GS3 commit to developing pollution prevention measures of mobilising soil contaminants to surface waters.
- GS5 commits to identifying measures to be adopted during construction to avoid impacts to sensitive receptors from any land contamination exposed during construction.
- GS8 is specific to protecting the impact of contaminated land onto groundwater sources.
- GS9 holds specific regard to the suspected asbestos-containing materials identified in Borrow Pit J, to limit the impact on uncontaminated soils and construction workers.

- RDWE 11 and 32 commit to following relevant industry best practice and guidance regarding the protection of groundwater and surface water from construction activities (including the borrow pits).
- RDWE28 commits to disposing off-site any contaminated groundwater intercepted during construction activities that cannot be treated to achieve consented discharge parameters.

Q3.5.14**DWD LLP on behalf of Countryside Zest (Beaulieu Park) LLP****Examiner's Question**

This objection is being maintained whilst the drafting of a legal agreement is awaited [REP4- 082]. At CAH2, it was stated in the CAH2 that agreement had been reached on 26 April. Please provide confirmation of this.

Co-Responder's Response

Dear Sir or Madam PLANNING ACT 2008 – RESPONSE TO EXAMINING AUTHORITY QUESTIONS (EXQ3) (DEADLINE 6) RE: A12 WIDENING SCHEME BETWEEN JUNCTIONS 19 (BOREHAM INTERCHANGE) AND 25 (MARKS TEY INTERCHANGE).

We act on behalf of Countryside Zest (Beaulieu Park) LLP 'CZ', a joint venture made up of Countryside Partnerships and L&Q, who are the landowner and developer of the Beaulieu Outline Planning Permission (OPP), which was granted in 2014 for 3,600 homes, new roads, schools, neighbourhood centre and business park (ref. 09/01314/EIA). We note that question Q3.5.14 submitted as part of the Examining Authority Questions (ExQ3) has been included for CZ to address and provide a response. This question states:

"This objection is being maintained whilst the drafting of a legal agreement is awaited [REP4-082]. At CAH2, it was stated in the CAH2 that agreement has been reached on 26 April. Please provide confirmation of this."

CZs written submission submitted at REP2-046-001 noted that "While a number of these matters discussed in previous responses to the application have been agreed, there remain a number of areas of disagreement between both parties, CZ and National Highways. Discussions are ongoing in order to come to an agreement on these matters, particularly in regard the Landowner Option Agreement."

In response to the above, National Highways responded as part of Document 9.24 'Applicant's comments at written representations' at Deadline 3 (March 2023) that the "Applicant notes the information provided by Countryside Zest. Applicant is

committed to ongoing discussions with Countryside Zest regarding their concerns and is progressing an agreement to ensure both projects can be delivered as efficiently and effectively as practical”.

Following the response from National Highways, it is confirmed that discussions between the two parties are ongoing, and in principle agreements have been reached on land transfers; however, in the absence of any legal agreement, CZ's objection to the drawings as submitted is maintained.

CZ do acknowledge that National Highways informed CZ on the 24th May that they have instructed a legal party (WBD), who will draft and implement the anticipated Landowner Option Agreement that will be taken into consideration as part of the DCO. Conclusion In summary, CZ continue to support the principle of the Proposed Development which includes the widening, where necessary, of the A12 between Chelmsford and the A120 from two lanes to three in each direction, as well as ancillary improvements to a number of junctions. While discussions are still continuing between both CZ and National Highways regarding the matters outlined above, CZ maintain an objection until the Landowner Option Agreement has been finalised and formally processed.

Yours faithfully, Barry Murphy

Applicant's Response

Heads of Terms of for an option agreement and a Letter of Assurance have been agreed between the Applicant and Countryside Zest. Legal representatives from both sides are now formalising the arrangements. The parties have agreed to maintain a monthly meeting to keep transferring information and exchanging programme information.

Compensation principles have been agreed for the permanent land acquisition.

Q3.8.2	Essex County Council
Examiner's Question	
<p>Essex County Council have objected [REP5-033] to the proposed footpath alignment at Colemans Cottage Fishery on the basis that it creates a semi enclosed corridor footpath. They do not consider that this is the optimum design for a public footpath when it is created as a result of a new development. Can the Applicant give this positioning and design additional thought as this does not seem a satisfactory outcome? A further meeting was proposed for Monday 13 May and was there any progress at this?</p>	
Co-Responder's Response	
<p>Due to the limited space available, the landowner mitigation requirements and the topography of the site it remains ECC's position that an alternative route for the footpath connection should be sought to the south, linking FP 103 to FP 101 Witham. Whilst this is a longer route for walkers, it does still address the severance of the network and further provides an alternative link to the Whetmeads Nature reserve, avoiding the underpass which frequently floods.</p>	
Applicant's Response	
<p>The Applicant notes the Interested Party's comments and has confirmed in response to ExQ3 that the Applicant is proposing to remove the proposed footpath connection from the severed footpath 121_103 to Little Braxted Lane behind the fishing ponds. The Applicant is now proposing to connect footpath 121_103 to footpath 121_101 via the proposed maintenance access tracks on the southern side of the A12. This is shown on the revised Streets, Rights of Way and Access Plans submitted at Deadline 6 [REP6-014].</p>	

Q3.8.4	Essex County Council
Examiner's Question	
<p>Several Interested Parties have referred to the need for access to bridges to be designed in accordance with the LTN1/20 Guidance but there has been no commitment from the Applicant so far. It is noted that a further meeting with Essex County Council was to take place on 4 May. What was the outcome of this?</p>	
Co-Responder's Response	
<p>Following the meeting on 4th May, and the Council's production of a draft DCO Requirement for Walking, Cycling and Horse-riding (WCH), the Applicant has merged into Requirement 10 Detailed Design. The provisions contained in the Applicant's proposed WCH Infrastructure Specification (Appendix B of Design Principle) fall short of the Council's recommendations and will not, in the Council's view, ensure that the WCH overbridges, or the access to these bridges, are designed in accordance with LTN1/20 Guidance. The Council's version of Requirement 14, refers to ECC's WCH Infrastructure Specification Matrix. This matrix contains a detailed specification for the A12 DCO scheme's WCH infrastructure, which, if accepted by the Applicant would ensure that all key WCH infrastructure is designed in accordance with LTN1/20. At present, the Applicant has not agreed to all elements of ECC's WCH Infrastructure Specification Matrix.</p>	
Applicant's Response	
<p>As background, at deadline 5 the Applicant submitted new Requirement 14 with the draft DCO. As part of the county council's deadline 5 submission however, the council suggested a matrix be provided as a means to show the commitments being made by the Applicant. This was done by the Applicant and at Deadline 6 the table referred to by the council was included in Appendix B of the Design Principles [REP6-058] document and underpinned by the Design Principles being included within Requirement 10. The Applicant therefore deleted Requirement 14.</p> <p>The table within Appendix B referred to provides commitments on approximately 80% of the asks from the council. The remaining items and the reasons they are not being taken forward are as follows:</p>	

- The Applicant does not accept the segregation between walking and cycling facilities and 5.5m minimum width between parapets on Paynes Lane and Marks Tey bridges. The Applicant maintains that the proposed 4m width is sufficient to provide a 3m shared use path with 0.5m offset on either side. This complies with LTN1/20 guidelines and provides adequate capacity for the expected future active transport growth.
- The Applicant has proposed revised text for the At Grade Crossings section of the matrix. The latest text can be found in Appendix B of the Design Principles document submitted at Deadline 7 [TR010060/APP/7.10 revision 5].
- The Applicant does not accept the addition of the text regarding the Rivenhall End single stage cycle crossing. Due to the level difference between the north and southbound carriageways, a stagger is proposed to be introduced within the existing central-reserve to gradually allow users to overcome the level difference.
- The Applicant does not accept the addition of the text regarding the WCH links between Feering and Marks Tey. The Applicant maintains that the existing shared use walking/cycling facilities in this location are of sufficient width.
- The Applicant has proposed revised text for the junction 24 WCH Links section of the matrix. The latest text can be found in Appendix B of the Design Principles document submitted at Deadline 7 [TR010060/APP/7.10 revision 5].

For further information, following deadline 6 the council asked that Requirement 14 be reinstated. The Applicant has done this, and the new requirement can be found in the Final Development Consent Order submitted at Deadline 7 [TR010060/APP/3.1 revision 8].