Appendix D - Comments on responses to EXQ1

National Highways: 9.14 Applicants Response to ExQ1 (planninginspectorate.gov.uk)

Ref.	EXQ1	National Highways Response to EXQ1	MDC Comment		
Air Qu	Quality				
2.0.6	In relation to 6.8.23 of ES Chapter 6 [APP-073], and notwithstanding the explanation provided in 1.10 of Appendix 6.3 [APP-102], please provide more detail to justify the human health receptor locations. In particular, please explain why and how the 267 locations were identified. Furthermore, 1.10.2 of Appendix 6.3 [APP-102] refers to the 267 receptors being worst-case human receptors, whereas 6.8.24 of ES Chapter 6 [APP-073] states, 'Equally, receptors were selected to indicate where air quality is likely to improve as a result of the proposed scheme.' Please provide further clarification.	Placement of receptors is explained in paragraph 6.8.24 of the Environmental Statement Chapter 6: Air quality [APP-073]. Appendix 6.3 [APP-102], paragraph 1.10.2, correctly states that worst-case receptors have been chosen, but does not mention the receptors chosen to represent where air quality was likely to improve due to the proposed scheme. To clarify, the 267 receptors are primarily worst-case (as explained below), but also include some receptors to demonstrate where air quality would improve. The placement of human health receptors was generally focused on areas near the Affected Road Network (ARN), i.e., the network of roads with the potential to cause air quality issues at nearby sensitive receptors, should they exist. The ARN is triggered based on threshold traffic flow and speed criteria included in the Design Manual for Roads and Bridges LA 105. The threshold criteria can be triggered in both positive and negative directions i.e., due to an increase or decrease in emissions. Traffic modelling indicated that emissions were likely to increase (e.g. positive triggering on the mainline A12 between junction 19 and junction 25) or where the highest concentrations were expected to occur (e.g., properties alongside the A12 near to Halstead Road, Colchester). Equally, receptors were selected to indicate where air quality is likely to improve (e.g. negative triggering for the old A12 through Rivenhall End and High Street, Kelvedon) as a result of the proposed scheme. Receptors were also specifically located where residents raised concerns during consultation events held before the modelling was undertaken (e.g. Inworth Road). Of the total receptors (267) modelled, 25 receptors representing 39 consented mixed use developmental planning applications within 200m of the ARN, were also included (see Table 1.3 of Environmental Statement Appendix 6.3: Dispersion Modelling Process [APP-102]). The planning application to the ARN unless information was made available as to the actual location and use of buildings.	MDC has consistently raised an issue that the Duke of Wellington Mini Roundabout at the junction with Maldon Road as part of the ARN (Affected Road Network) operates at level of Service D and is at capacity at off peak times and over capacity at peak times (this traffic emanates from the Maldon District). Traffic flows are congested on Maldon Road with queuing traffic (all transport modes) and forecast to worsen by the time the Project is operating (2027). The Applicant refers to ES Chapter 6 [APP-073] 6.8.24 that receptors located near the ARN 'with potential to cause air quality issues at nearby sensitive receptors, should they exist, based on threshold traffic flows.' MDC considers Maldon Road at the junction with the Duke of Wellington Mini Roundabout a 'sensitive human receptor' because Maldon Road is a residential street with public footpaths and zebra crossings (2) either side of the carriageway. MDC agrees the location of the receptors at the Maldon Road junction with the Duke of Wellington Mini Roundabout. MDC remains concerned at the correlation of the air quality assessments on the ARN with the current poor Level of Service D traffic flows at the Maldon Road junction with the Duke of Wellington Mini Roundabout set out in C.1 of the Transport Assessment - Appendix C: Traffic Flow Diagrams – Communities and A12 Mainline [APP-256] which states: 'A significant increase in traffic over Wellington bridge as it is upgraded to become a two-way road linking Hatfield Peverel with the proposed new junction 21' and 'An increase in traffic on B1019 Maldon Road of 8% per day'. Future traffic flow modelling within Chapter G.1 of Transport Assessment - Appendix G: Junction Modelling Technical Notes – Local Road Junctions [APP-260] concludes: 'the average queue on B1019 Maldon Road is predicted to increase from 84m without the proposed scheme to 101m with the proposed scheme'.		
Biodiv 3.0.5	Paragraph 9.10.26 of ES Chapter 9 [APP-076]	As reported in paragraph 9.11.9 of Chapter 9: Biodiversity, of the Environmental	MDC would agree with the Applicant's stance that it should not		
3.0.5	states 'Impacts to Whetmead LNR and LWS would be offset through creation of habitats	Statement [APP-076] there would be permanent loss of 0.89ha of semi-natural broadleaved woodland habitats on the western boundary of Whetmead Local Nature	attempt restoration or creation of new habitat within the Whetmead LNR/LWS if the disturbance of the former landfill site through		

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	within the proposed scheme. Due to ground conditions, there is limited scope for additional planting to improve the existing LNR/LWS or to restore or improve the condition of formerly wet habitats within the site.' Please explain in more detail and in particular, identify where within the proposed scheme will the impact be offset. Are the parties satisfied with the Applicant's approach?	Reserve (LNR)/Local Wildlife Site (LWS) to enable widening of the existing A12 carriageway. There would also be operational impacts through increased nitrogen deposition within the remaining grassland in the LNR/LWS. Owing to previous use as a landfill site (industrial and commercial) from 1964 until 1990 (see Table 10.9 of Chapter 10: Geology and soils [APP-077]), land within the LNR/LWS may not be suitable for the restoration of wet habitats or creation of new habitats. Soil samples collected close to the historical landfills at Whetmead LNR/LWS were found to be hazardous and groundwater quality was also poor (paragraph 10.9.12 of Chapter 10: Geology and soils [APP-077]). In addition, Whetmead LNR Management Plan 2015-2024 (Essex Ecology Services Limited, 2015) reports that much of the site is levelled with poorly structured soil, which is poorly draining and of variable composition. It also states that the nutrient poor substrate has severely limited the growth of any desired tree/shrub cover and that a small area of planted trees on the landfill have died because of the adverse soil conditions. The Applicant has therefore concluded that conditions within the LNR/ LWS could compromise the success of any additional new planting and any works disturbing the landfill could lead to mobilisation of contaminants, thereby increasing the risk of releasing contaminants into the environment including the adjacent River Brain which flows into the River Blackwater nearby. The proposed mitigation is to create approximately 2ha of new habitat within an ecological mitigation area would include species rich grassland, ponds and a ditch complex to enable the habitat to be used for reptile mitigation (although it would provide habitat for other species such as amphibians, water vole and bats as well). In addition, 0.8ha of woodland planting would be provided within an existing gap along the western boundary of the plot immediately to the west of the ecological mitigation area, where it provides the benefit of visual screenin	planting and works risks contaminants entering the River Blackwater. This would pose a risk to water quality in the immediate environment and downstream in the Maldon District and should be avoided in accordance with Policy D2 and N2 of the Maldon District Local Development Plan 2014-2029.
Gas Pi	ipeline Diversion		
7.01	Please confirm the design principles for the gas pipeline diversion.	The Design Principles [APP-280] has been updated by the Applicant at Deadline 2. Revision 2 of the Design Principles [Applicant's reference TR01600/APP/7.10 rev 2] details the design principles for the gas diversion pipeline.	APP-280 submitted by the Applicant in Aug 2022 set out no Design Principles for the gas pipeline, which, in MDC's view was not acceptable for an application that was submitted to be examined. REP2-005 submitted by the Applicant in Feb 2023 however now sets out a track-changed version of APP-280 which includes design principles for the gas pipeline. The inclusion of document references is very helpful and welcomed by MDC. MDC is reassured that the Applicant has been able to confirm that its technical design standards will comply with guidance from the Institute of Gas Engineers and Managers; as well as relevant legislation and specifications. It is understood by MDC that by following these collectively however, the final route of the diversion and the landscape restoration potential once constructed may be affected.

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			The new tables that cover Technical Design and Environmental Considerations are also welcomed by MDC.
			Due to the sensitive location of the pipeline's proposed diversion through Blue Mills Nature Reserve in the Maldon District, MDC particularly welcomes:
			 GPEC.01 (Retain Vegetation) – which will work to reduce the working width of the pipeline corridor through woodland and field boundaries. GPEC.03 (Compensation Planting) – to ensure locally indigenous native and non-native plants will be used to reflect local distinctive character. GPEC.04 (Protection of Main Rivers) – to ensure all main river crossings would be trenchless, using tunnels under the main rivers. GPEC.05 Aesthetic value – to ensure the scar on the landscape is softened as much as possible. GPEC.07 and 08 – which will see an Environmental Management Plan prepared which will include a separate Site Waste Management Plan. This will mean this element is compliant with Maldon District Local Development Plan Policy D2(4). For GPEC.04, MDC would note however the tunnelling techniques
			should be scrutinised further by appropriate ecological specialists to mitigate any ecological impacts possible to riparian species including otters that could otherwise be disturbed by the tunnelling methods due to sensitivities to vibrations, noise and ground disturbances.
			For GPEC.05 (Aesthetic value – detailed design), MDC consider that where woodland, trees, tree lines and tree belts would be lost and could not be replaced due to the easement restrictions of the new pipeline – that replacements should still be planted as close to the easement impact areas as possible to make the scheme compliant with Maldon District Local Development Plan Policy N2. This should be in addition to the measures already set out in GPEC.05 in respects of using native shrub and hedgerow planting within easements in line with Cadent Gas guidance.
			MDC consider that a further principle should also be included that is not currently specified for the gas pipeline, but which exists for the main A12 widening project (i.e. PRO.04 and LSC.13) under Environmental Protection to cover principles around species and biodiversity.
7.0.2	Noting ES paragraph 5.2.2 [APP-072] which explains that the gas main diversion works would give rise to likely significant effects, the Applicant is requested to provide a signposting document such that the significance of effects of the gas main diversion can be clearly distinguished from the wider development.	Within the main body of the Environmental Statement, the gas main diversion has been assessed as an integral part of the proposed scheme (i.e. it has not been assessed in isolation). However, Table 2.1 in Appendix 5.2: Gas Main Diversion Screening Assessment, of the Environmental Statement [APP-097] summarises the likely environmental effects of the gas main diversion for each environmental aspect. The Applicant has produced Appendix A in response to this written question to	MDC noted.

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		signpost to chapters and sections of the Environmental Statement that discuss the gas main diversion.	
7.0.3	It is unclear why the field surveys for the gas main diversion did not cover other species which could potentially be affected such as reptiles and riparian mammals. Can the Applicant explain why they limited the scope of the survey for the gas main diversion to the species considered and whether mitigation was considered for any other species?	Scope of surveys The scope of ecology surveys for the gas main was determined by desk studies including a review of aerial photographs and phase 1 habitat survey data. The scope of surveys for the gas main diversion was also determined based on the potential for adverse effects. For example, due to a commitment for a trenchless crossing which avoided effects on the River Blackwater (LV15 in the Register of Environmental Actions and Commitments (REAC), within the first iteration Environmental Management Plan [APP-185]), it was determined there would be no effect on freshwater fish, macro-invertebrates and macrophytes and so surveys for these receptors were not undertaken. Similarly, it was assessed that impacts to birds could be managed effectively through standard mitigation (see, BI1, B14, BI5, BI9 and BI38of the REAC [APP-185]), including avoiding sensitive periods, having an ecological clerk of works (ECoW) supervise works, using buffers around sensitive features and provision of nest boxes. In addition, the data gathered for the proposed scheme sampled areas of high-quality habitat to determine the presence of different bird species within the local area. Due to the fact birds are highly mobile and able to travel significant distances, the baseline collected is assessed to reflect the species within all parts of the proposed scheme. Lastly, the proposed planting scheme is assessed to benefit all species of bird due to the areas of habitats to be created. Therefore, no bird surveys were undertaken for the gas main diversion.	
		A suite of surveys was identified early on but could not be completed until 2022 due to seasonal constraints in relation to the surveys and land access. It is not the case that the surveys did not cover other species, but that these surveys were delayed meaning the results could not be incorporated into the Environmental Statement. The scope of the surveys for the gas main diversion was as follows: • Badger surveys • Ground based assessment of trees for bat roost potential (there were no buildings within the 30m buffer of the gas main diversion and so these were	
		not included within the scope) Bat climbing surveys (or dawn/dusk surveys of trees which were not safe to climb) Dormouse surveys Hedgerow surveys Riparian mammal (otter and water vole) surveys Botanical surveys of the woodland at Blue Mills	
		Reports summarising the results of bat and dormouse surveys have been submitted to the examination and are available in the examination library [AS-032 and AS-036 respectively]. Reports summarising the results of the badger [TR0100/60/EXAM/9.15], botanical (including hedgerow surveys) [TR010060/EXAM/9.16] and riparian mammals surveys [TR010060/EXAM/9.18] will be submitted to the examination at Deadline 2. As per Table 9.7 of Environmental Statement Chapter 9: Biodiversity [APP-076], reptiles were not included within the scope of field surveys to inform the environmental assessment as it was agreed with Natural England that the 2017 survey data, in combination with a precautionary approach, could be used to inform the mitigation for the proposed scheme. However, surveys of the gas main diversion and wider scheme were updated by the Applicant in 2022 in order to inform the detailed design stage of the project. Reptile survey	

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		reports (one for Blue Mills [TR010060/EXAM/9.17], and one for the wider scheme [TR010060/EXAM/9.23]) will be submitted to the examination at Deadline 2.	
		Surveys Seasonal and access constraints meant it was not possible to undertake all the survey work for the gas main diversion until 2022 (as described in paragraphs 9.6.4 – 9.6.7 of Chapter 9: Biodiversity [APP-076]). However, the following information was obtained in advance of DCO submission and was included within the baseline section of Chapter 9:	
		 Phase 1 Habitat Survey data - due to a 600m buffer (to allow for flexibility in the evolving design) being used for the Phase 1 Habitat surveys which were undertaken from 2016 to 2020, Phase 1 Habitat survey data were available for the entire route of the gas main diversion (with the exception of a small segment of habitat which is clearly identifiable as broadleaved woodland from aerial photographs) from the original suite of surveys (Appendix 9.8: Phase 1 Habitat Survey Report [APP-132]). Partial riparian mammal data - surveys undertaken in 2020 included the most northerly crossing of the River Blackwater by the gas main diversion. Results are included within Appendix 9.10: Riparian Mammal Survey Report [APP-134]. 	
		 Partial badger and ground-based bat roost assessment data - the majority of the gas main diversion to the east of the River Blackwater is divided into three land holdings. Where access was permitted for two of the three land parcels, badger surveys and ground-based bat roosts assessments were undertaken in the winter of 2021 and these data were included in Appendix 9.4: Bat Survey Report [APP-128] and Appendix 9.2: Badger Survey Report [APP-126]. Access for the remaining land parcel was permitted in July 2022, at which time the ground-based bat roost assessments and badger surveys were completed. 	
		Where surveys could not be completed until after submission of the DCO application, they were undertaken within the earliest available survey window where access permitted:	
		Dormouse surveys [AS-036]Bat dawn/dusk and climbing surveys [AS-032]	
		In addition, further to ongoing discussions with the landowner, additional access became available in 2022 to land at Blue Mills. This enabled the Applicant to undertake a badger survey, bat ground assessment, bat dawn/dusk and climbing surveys [AS-032], botanical surveys (of the woodland), and dormouse [AS-036] and riparian mammal surveys of this land parcel. The results of these surveys are included within the reports to be submitted to the examination at Deadline 2 (with the exception of dormouse and bat results which have already been submitted [AS-032 and AS-036]).	MDC welcomes the completion of surveys undertaken by the Applicant for Blue Mills Nature Reserve. This will enable impact to be better understood, a route of least harm to be chosen for the pipeline and appropriate mitigation to be quantified and planned for.
		Summary of results and assessment of effects	
		Survey reports for the bat and dormice surveys have been submitted to the Planning Inspectorate and are available via the examination library (Supplementary Bat Survey Report [AS-032] and Dormouse Survey Report [AS-036]). In summary, no bat roosts were identified from climbing or dawn/dusk surveys, although several trees with bat roost potential were mapped (see Figure A.1, sheets 2 – 4 [AS-032]).	

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		This means there is no change to the conclusions of Chapter 9 of the Environmental Statement, nor is there a requirement to amend mitigation proposals with respect to roosting bats.	
		No dormice or evidence of dormice was recorded and, as per paragraph 7.1.4 of the Dormouse Survey Report [AS-036], it has been concluded dormice are likely to be absent from the entire Order Limits and would therefore not be impacted by the proposed scheme. This would result in a reduction of the assessment of effects on dormice from 'slight adverse' during construction and 'neutral' during operation' to 'no effects', as there is no impact pathway.	
		The badger, botany, reptile and riparian mammal survey reports for the surveys undertaken in 2022, where access was delayed, will be submitted to the examination at Deadline 2 (note that the badger report will be marked as 'confidential' due to the sensitive nature of the information). In summary, no new badger setts were recorded, although there was evidence of badgers using the woodland to the east of the River Blackwater where the gas main diversion crosses the River Blackwater at the more southerly point. As there are no new setts, there is no change to the assessment within Chapter 9 [APP-076].	
		Low populations of slow worms and common lizards were recorded during surveys of Blue Mills, although it is acknowledged that the abundance of natural refugia may have led to an under recording of the population size. The results are consistent with other areas of the proposed scheme where low to moderate populations of these species were recorded. There is no change to the proposed mitigation or assessment of effects within Chapter 9 [APP-076].	
		Otters were recorded using the River Blackwater with one potential slide, a potential holt, a potential couch and multiple sprainting sites present (although only the potential holt and one sprainting site is within the Order Limits). Depending on the alignment of the gas main diversion, there is potential for impacts to otters if using the potential holt at the time of construction. The potential couch is more than 95m from the Order Limits and so effects are unlikely. As per commitment Bl4 of the REAC [APP-185], works would be timed to avoid sensitive periods for protected species where reasonably practicable and appropriate. Where this cannot be achieved, this would be managed in accordance with advice and, where required, supervision from an ECoW and in accordance with any protected species licence requirements. Also, as per commitment Bl9 of the REAC [APP-185], buffer zones around sensitive features such as otter holts would be implemented as directed by the ECoW. Lastly, as per commitment Bl34 of the REAC [APP-185], should any new resting places be identified, and should they be located in a place that would be disturbed, damaged or destroyed as a result of the proposed scheme, a European Protected Species Mitigation licence would be obtained from Natural England to agree the specific mitigation approach. Through implementing these commitments, there would be no change to the assessment within Chapter 9 [APP-076].	MDC is pleased the applicant has identified potential mitigation of potential impacts to otter populations in the River Blackwater and note that the final solutions will be dependent on the alignment of the gas main diversion.
		No evidence of water vole was recorded and therefore there is no change to the assessment in Chapter 9 [APP-076]. The hedgerow survey assessed two hedgerows which would be crossed by the gas main diversion. Neither qualified as 'important' under the hedgerow regulations, however both qualify as priority habitat and so would be assessed as being of national value in accordance with DMRB LA 108 and as per Table 9.22 of Chapter 9	

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		[APP-076]. With the implementation of mitigation (see mitigation section of this response), impacts to the hedgerows are assessed as temporary and there would be no effect on the integrity of the resource. There is therefore no change to the assessment of effects on hedgerows presented in Chapter 9 [APP-076]. Botanical surveys confirmed a part of the woodland at Blue Mills to be wet woodland (a priority habitat) of moderate condition (see Figure 1 within the Botanical Survey Report to be submitted at Deadline 2 [TR010060/EXAM/9.16]). It is acknowledged that the wet woodland and part of the lowland mixed deciduous woodland have been proposed for designation as part of Blue Mills Local Wildlife Site (LWS). In accordance with DMRB LA 108, and Table 9.22 of Chapter 9 [APP-076], wet woodland is assessed as being of national value. The proposed LWS is assessed as being of County value. Using the same assumptions outlined in Chapter 9 [APP-076] with respect to vegetation clearance to accommodate the gas main diversion (paragraph 9.6.8) and replanting along the easement of the gas main diversion (bullet point 5 of paragraph 9.10.23), the wet woodland has the potential to be affected through:	MDC note that this is consistent with surveys it commissioned Essex Ecology Services (of Essex Wildlife Trust) to undertake at Blue Mills Nature Reserve in 2021 which led to the Tree Preservation Order and recommendation for Local Wildlife Site designation.
		 Loss of a 30m corridor of wet woodland habitat due to clearance of trees to enable construction of the gas main (as opposed to loss of a 30m corridor of lowland mixed deciduous woodland assumed within Chapter 9 [APP-076] Short duration changes in hydrology during construction due to water ingress into the trench excavated for installation of the gas pipe (assuming trenchless techniques are not used to construct the pipeline) Operational effects should the backfilled trench draw water away from the surrounding habitats 	
		It would be possible to avoid impacts to the wet woodland from changes in hydrology both during construction and operation of the proposed scheme, by control of construction works and incorporating impermeable material to prevent flow of water along the trench. There is a corridor of habitat through the centre of the gas main corridor which does not contain wet woodland. If the gas main was routed through this area there would be no loss of wet woodland habitat and therefore there would be no change to the assessment in Chapter 9 [APP-076] with respect to lowland mixed deciduous woodland and wet woodland. However, if the gas main was routed through or partially through the wet woodland there would be a new effect (loss of wet woodland habitat). Assuming a worse-case scenario where the 30m corridor completely overlaps with the wet woodland, 621.75m2 of wet woodland would be cleared. The significance of this effect is discussed below.	
		 Loss of a 30m corridor of habitat (which would comprise lowland mixed deciduous woodland and potentially wet woodland) due to clearance of vegetation to enable construction of the gas main Depending on the position of the pipeline relative to the wet woodland, there is potential for changes in hydrology during construction to affect the wet woodland component of the LWS due to water ingress into the trench excavated for installation of the gas pipe (assuming trenchless techniques are not used construct the pipeline) Likewise, depending on the position of the pipeline relative to the wet woodland, there is potential for operational effects on the wet woodland 	

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		component of the LWS should the backfilled trench draw water away from the surrounding habitats	
		As above, it would be possible to avoid impacts to the wet woodland component of the LWS from changes in hydrology both during construction and operation of the proposed scheme, by control of construction works and incorporating impermeable material to prevent flow of water along the trench. Standard mitigation as per REAC commitments [APP-185] RDWE11 (working practices would be aligned with the Protect Groundwater and Prevent Groundwater Pollution guidance (Environment Agency, 2017)) and RDWE12 (Permanent drainage (including culverts) would be designed and constructed in accordance with the Surface Water Drainage Strategy (Appendix 14.6 of the Environmental Statement [APP-174]) and with the specifications outlined in the Flood Risk Assessment [APP-162]) would apply to the construction of the gas main.	MDC strongly support the avoidance of impacts to the wet woodland component.
		As per commitment LV14 of the REAC [APP-185], the gas main diversion would be carried out in accordance with utility company's guidance and best practice standards. There would be a no planting zone on and close to the edge of the pipeline. However, there would be scope to replant parts of the 30m corridor to reduce the width of the gap in the long term. Planting proposals would be developed at detailed design. Therefore, loss of central part of the corridor would be a permanent effect, however loss of the remaining wet woodland would be temporary.	MDC note the potential to replant parts of the maximum 30m corridor to reduce the width of the landscape scar in the longer term.
		In accordance with LA 108, when determining the level of impact, it is necessary to consider whether the integrity of the resource would be affected. Although construction of the pipeline would lead to a loss of trees, it is effectively creating a ride through the woodland. This will increase the diversity of habitats, providing open areas which may benefit some plant and insect species. Whereas other insects and plants, as well as birds and mammals, could benefit from the woodland edge habitat. It is therefore assessed that the adverse impact caused from constructing the pipeline is temporary and would not affect the integrity of the resource in the long term. In accordance with DMRB LA 108, the level of impact is assessed as negligible adverse. The residual significance of effect of a negligible adverse impact on a county receptor (Blue Mills LWS) or national receptor (wet woodland) is neutral or slight adverse (not significant).	
		Lastly, the botanical survey confirmed a female black poplar and several mature oak trees within the woodland at Blue Mills. A second black poplar is located south of the Order Limits. The width of the Order Limits along the gas main diversion will enable flexibility with respect to the alignment of the pipeline. The Applicant has communicated the location of the black poplar to Cadent and has highlighted the presence of the mature oaks, which would be accurately mapped as part of the upcoming arboriculture survey to inform the detailed design of the pipeline. The black poplar is assessed to be of county value (on the basis Essex Wildlife Trust have stated they are likely to be the only surviving black poplar in Essex) and the mature oaks as of local value. While the intention would be to retain the trees through the detailed design, it may be necessary to remove some along the pipeline route. Assuming a worse-case scenario, loss of the poplar or oak trees (if they cannot be avoided) would lead to a major adverse magnitude of impact in accordance with DMRB LA 108 as per Table 9.8 of Chapter 9 [APP-076]. Without mitigation the significance of effect is assessed to be moderate adverse (significant) with respect to the black poplar and slight adverse (not significant) with respect to the oak trees in accordance with DMRB LA 108 and as per Table 9.9 of Chapter 9 [APP-076].	MDC note that the botanical survey is consistent with surveys undertaken by Essex Ecology Services (of Essex Wildlife Trust) it undertook at Blue Mills in 2021 which led to the Tree Preservation Order and recommendation for Local Wildlife Site designation. MDC appreciates the communication of the location of the black poplar to Cadent, as well as the presence of the mature oaks and notes they will be accurately mapped in the arboriculture survey. The rarity of the two poplars as likely to be the only surviving specimens in Essex must not be devalued by the Project.

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	However, mitigation measures to avoid impacts on the poplar tree through micrositing of the pipeline route and the adoption of a trenchless crossing of the Blackwater River (see commitment LV15 in the REAC [APP-185]) would reduce the impact to slight adverse (not significant). An arboriculture survey is being undertaken and once this has been reported, the results will be used to inform an appropriate control, whereby a combination of route and construction methodology would be designed to minimise the impacts on the black poplar and other sensitive ecological features in this area. The REAC will be updated at Deadline 4 accordingly.	
	Assessment and mitigation	
	The assessment of significant effects within Chapter 9 [APP-076] considers residual effects following the implementation of embedded, standard and additional mitigation. Mitigation includes general measures (including those below) and more specific measures for protected and notable species including bats, badger, birds, reptiles, otter and water vole. The standard and embedded mitigation measures detailed within Section 9.10 of Chapter 9: Biodiversity [APP-076] (and as committed to in the REAC [APP-185]) are of relevance to the gas main diversion, in particular:	
	 Pre-construction surveys using current best practice guidance would be undertaken for bats, barn owl, badger, otter, water vole and reptiles to update baseline surveys prior to construction (commitment BI11 of the REAC [APP185]) due to the potential for wildlife to create new roosts, setts, holts, nests and burrows. This data would be used to inform mitigation licences where required. ECoW would be employed where relevant to the works being undertaken (commitment BI12 of the REAC [APP-185]). Following inspection by the ECoW, clearance of habitats within the construction area would be conducted under appropriate supervision where there is potential for impacts to protected species (commitment BI5 of the REAC [APP-185]). Works would be timed to avoid sensitive periods for protected species where reasonably practicable and appropriate (commitment BI4 of the REAC [APP185]). Buffer zones around sensitive features such as confirmed bat roosts, badger setts, otter holts, water vole burrows, birds' nests and watercourses would be implemented as directed by the ECoW (commitment BI9 of the REAC [APP185]). Exclusion zones would be marked where appropriate around protected 	MDC welcomes pre-construction surveys for bats, barn owl, badger, otter, water voles and reptiles to update baseline surveys and inform licences as required. MDC welcomes the mitigation of an Ecological Clerk of Works (ECoW) to ensure compliance. MDC welcomes the mitigation of appropriate supervision for clearance within the construction area. MDC welcomes the mitigation of timing works to avoid sensitive periods. MDC welcomes the mitigation of buffer zones around sensitive features as directed by the EcOW.
	habitat areas such as trees, woodlands, hedgerows and watercourses to avoid accidental damage and retain vegetation in accordance with the Retained and Removed Vegetation Plans [APP-035 and AS-017] (commitment BI2 of the REAC [APP-185]).	MDC welcomes the mitigation of exclusion zones around protected habitat to avoided accidental damage and retain vegetation.
	The working width for the installation of the gas main diversion would be reduced as far as reasonably practicable through woodland and where the gas main diversion crosses through hedgerow field boundaries. All Main River crossing(s) for the gas main diversion would be installed using trenchless techniques, such as horizontal drilling. Directional drilling would be considered where practicable (commitment LV15 of the REAC [APP-185]).	MDC fully supports reducing the working width of the gas pipeline diversion as much as possible through the affected woodland and through hedgerow field boundaries. MDC supports in principle the use of tunnelling under the River
		Blackwater, as a mitigation measure, but would like to ensure that riparian species are protected from disturbance caused by vibration,

Ref. EXQ1	National Highways Response to EXQ1	MDC Comment
	As stated in paragraph 9.6.6 of Chapter 9: Biodiversity [APP-076], the absence of bat survey data was not considered a significant constraint to the assessments undertaken within the Environmental Statement. Had further additional bat roosts been identified, these would be mitigated for. Mitigation for additional roosts would be achievable within the Order Limits, but is ultimately not required, based on survey results in the supplementary bat survey report [AS-032]. As per paragraph 9.10.47 of Chapter 9: Biodiversity [APP-076], preconstruction bat surveys would be undertaken to support the European Protected Species Mitigation (EPSM) licence application following DCO consent and should new roosts be identified these would be mitigated as detailed in that paragraph. As per paragraph 9.10.49 of Chapter 9: Biodiversity [APP-076], additional bat boxes would be provided for every tree, building and structure assessed as having moderate to high suitability in the bat report that would be lost as a result of construction of the proposed scheme, and any identified in the Supplementary Bat Report [AS-032] or preconstruction surveys. This would mitigate for the loss of potential roost features with suitability to support roosting bats in the future. Boxes would be provided at a ratio of 2:1 for every tree, building or structure lost to account for variance in bat roosting preferences. Had dormouse been confirmed as present, any potential impacts would have been sufficiently mitigated through standard mitigation techniques (see paragraphs 9.10.67 to 9.10.71 of Chapter 9: Biodiversity [APP-076]) and therefore impacts would not have been significant (see paragraphs 9.11.191 to 9.11.193 of Chapter 9: Biodiversity [APP-076]). However, based on the results in the Supplementary	noise and ground disturbances that could be caused by horizontal drilling.
	Dormouse Survey Report [AS-036], no mitigation would be required. Due to the highly changeable use of setts by badgers, it is likely that the mitigation detailed within Appendix 9.17: Draft Badger Licence [APP-141] would need to be updated for the final licence application should the DCO be consented. This would enable incorporation of any mitigation required for any new setts found within the gas main diversion corridor (if any). Mitigation would be based on the principles outlined in paragraphs 9.10.60 to 9.10.64 of Chapter 9: Biodiversity [APP-076].	MDC welcome additional mitigation through EPSM licences from Natural England to agree the mitigation approach if new resting places for otters are identified.
	As mentioned above, it is anticipated that the trenchless crossing of the River Blackwater would avoid impacts to otters and the potential holt in the black poplar. However, as outlined in paragraph 9.10.72 in Chapter 9: Biodiversity [APP-076] and as per commitment Bl34 of the REAC [APP-185], should any new resting places be identified and should they be located in a place that would be disturbed, damaged or destroyed as a result of the proposed scheme, an EPSM licence would be obtained from Natural England to agree the specific mitigation approach. To mitigate habitat loss, as stated in paragraph 9.10.13 of Chapter 9: Biodiversity [APP-076] and as per commitment LV14 of the REAC [APP-185], replanting along the easement of the gas main diversion would be carried out in accordance with Cadent's guidance and best practice standards.	MDC supports replanting along the easement of the gas pipeline to soften the landscape scar and provide new habitat where the trench has cut through existing vegetation.
	As per paragraph 9.11.91 in Chapter 9 [APP076], there would be a net gain of 42.52ha of woodland habitat across the whole proposed scheme, which would mitigate the area that could not be replanted along the easement of the gas main. Of the 42.52ha shown on the Environmental Masterplan, 8.93ha is wet woodland	MDC do not support net gain across the whole proposed A12 NSIP scheme, which should otherwise be secured for the gas pipeline NSIP on its own. This approach is not compliant with the Maldon District Local Development Plan Policy N2 which seeks for replacement habitat to be as delivered as close as possible to the development site in order to avoid incremental and accumulative impact on local ecology. This approach makes no effort to determine if local habitat creation or improvements could be possible.

Ref.	EXQ1	National Highways Response to EXQ1	MDC Comment
		Summary In summary, all ecology surveys for the gas main diversion have been completed (note the Applicant is currently arranging for an arboriculture survey of the woodland at Blue Mills). Data obtained since the submission of the DCO is summarised in the following reports:	
		 Supplementary bat survey report [AS-032] Supplementary dormouse survey report [AS-036] Supplementary badger survey report (to be submitted to the examination at Deadline 2 [TR0100/60/EXAM/9.15]) Botanical survey report (includes an assessment of two hedgerows) (to be submitted to the examination at Deadline 2 [TR010060/EXAM/9.16]) Supplementary riparian mammal survey report (to be submitted to the examination at Deadline 2 [TR010060/EXAM/0.18]) Supplementary Reptile Survey (Blue Mills) (to be submitted to the examination at Deadline 2 [TR010060/EXAM/9.17]) Tetratech Reptile Survey Report (covers the wider scheme) (to be submitted to the examination at Deadline 2 [TR010060/EXAM/9.23]) The identification of wet woodland habitat and the proposed designation of the Blue 	
		 Mills LWS result in the identification of new potential effects: Loss of wet woodland habitat Changes in hydrology However, with the implementation of standard mitigation with respect to hydrological effects, and through implementation of commitment LV14 of the REAC (APP-185) with respect to replacement planting, the effects on these receptors are assessed as not significant. The botanical survey also confirmed the presence of a black poplar tree within the Order Limits. This is assessed as being of County value considering its rarity within Essex. With the additional commitment within the REAC [APP-185] impacts to the tree would be avoided and are assessed as not significant. There are no further changes to the assessment within Chapter 9 [APP-076] following the results of the 2022 surveys. 	