

# Maldon District Council

## Appendix C - Comments on responses to ExQ2

Ref.	EXQ2	National Highways ExQ2 Comment	MDC Comment
<b>Gas Pipeline Diversion</b>			
2.7.1	<p>During the ASI the ExA observed the ecological value of the Blue Mills Nature Reserve and adjoining Ancient Woodland. Please summarise:</p> <ul style="list-style-type: none"> <li>the alternative options considered which would avoid or mitigate the impacts of routing the pipeline diversion through the nature reserve; and</li> <li>justify the reasons why each option has been discounted.</li> </ul>	<p><b>Alternative options considered</b></p> <p>It was established that the gas main would need diverting as a result of the proposed scheme works, and corridor options were identified that:</p> <ul style="list-style-type: none"> <li>Run parallel and adjacent to the existing pipeline and A12</li> <li>Avoid the residential properties on Maldon Road</li> <li>Avoid the Whetmead Nature Reserve, which was created on top of a historical landfill</li> </ul> <p>During the Supplementary Consultation in November 2021, as well as the plans showing the corridors, an illustrative sketch of the corridors was included on page 23 of the consultation brochure [APP-057] which is copied below for ease of reference.</p> <div data-bbox="1121 911 1703 1743" data-label="Image"> </div> <p>The Supplementary Consultation: Environmental Report (available on the National Highways website) included an environmental assessment of the alternative corridors. This has been submitted at Deadline 4 [Applicant Reference TR010060/EXAM/9.46].</p>	<p>MDC acknowledge the Applicant's response. MDC would however like to draw the ExA's attention to ISH3 and specifically the EA's comments on culverting main rivers and the impact on riparian species and habitats that support the ecological value of Blue Mills Nature Reserve.</p> <p>In previous written submissions MDC has acknowledged the Applicant's approach in recognising Blue Mills Nature Reserve as a Local Wildlife Site (LoWS), the status of the Black Poplars as veteran trees, and the 'next generation veteran trees' for their public amenity value within the landscape.</p>

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		<p>The options for the gas main diversion, as well as the reasons they were discounted, are discussed in Table 3.5 of Environmental Statement Chapter 3: Assessment of alternatives [APP-070]. The options that were considered were:</p> <ul style="list-style-type: none"> <li>• Corridor 1 – Diverts south-east, away from the A12 and around Maldon Road and then travels back north-east to follow the existing A12.</li> <li>• Corridor 2 – Diverts south-east, away from the A12 and around Maldon Road and then travels further east along Blue Mills Hill where it crosses the River Blackwater. It then travels north-east along Ishams Chase to divert around Whetmead Local Nature Reserve (LNR), avoiding the potential contaminated land, before continuing north towards the A12.</li> <li>• Corridor 3 – Follows as closely as possible to the existing A12 mainline.</li> <li>• Corridor 4 – Diverts south-east, away from the A12 and around Maldon Road and then returns north-east to run alongside the existing A12 mainline before diverting east away from the A12 again, crossing the River Blackwater to go around Whetmead LNR, avoiding the potential contaminated land, before continuing north towards the A12.</li> <li>• Corridor 5 - Diverts south-east, away from the A12 and around Maldon Road and then travels further east than Corridor 2 to divert around the residential properties along Ishams Chase and Whetmead LNR, avoiding the potential contaminated land, before continuing north towards the A12.</li> </ul> <p><b>Reasons each option has been discounted</b></p> <p>Corridors 1 and 3 involve diverting the gas main through the historic landfill at Whetmead Local Nature Reserve. There would be issues around safety during construction and long-term serviceability of the asset associated with placing a new asset in the potentially contaminated ground, which were assessed not to be acceptable.</p> <p>Corridors 1 and 3 would have challenges associated with excavating through substantial depths of landfill, with Ground Investigation proving up to 13m of landfill deposits. This would have required very deep excavations to install the gas main, with significant health and safety considerations (such as stability of excavations and ground gas control) and considerable cost implications (current Environment Agency position does not allow reuse of landfill deposits, so disposal may have been required for excavated landfill materials). In addition, if directional drilling was used to install the gas main, the presence of landfill may mean that significant obstructions may be encountered. The deep excavations would involve substantial disturbance of the Whetmead Nature Reserve.</p> <p>To mitigate against these risks it may be practicable to remediate the landfill area to create a suitable medium for the gas main to be installed into. This would involve excavation of the existing material and transporting to a new landfill, creating an impermeable barrier whilst mitigating the risks of potential gas build up, then backfilling with a suitable material. To enable safe construction, and subsequent maintenance, it may be necessary for the full width of the construction corridor to be remediated.</p> <p>If the full construction corridor width were to be remediated in this way, however, this would require approximately 12,000-14,000 HGV movements. These would likely need to be via Maldon Road and the local road network, as the temporary works to create access/egress directly to the A12 would itself require a significant import of material, and may not be feasible with the configuration of traffic on the A12 ahead of</p>	

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		<p>the southbound widening. It would be necessary to complete these works early in the programme, to enable the southbound A12 widening. This level of vehicle movements would not be acceptable on Maldon Road.</p> <p>Corridors 1 and 3 were therefore discounted. Strong feedback during the supplementary consultation on Corridors 2 and 5 was received on the impacts of these route options from local residents and councillors. These corridors would result in the loss of trees and hedgerows that line Blue Mills Hill and Ishams Chase, impacting the landscape character of these areas and potentially impacting on the setting of listed buildings. There would also be disruption to residents during construction as maintaining access to properties, while aiming to reduce tree loss, would be problematic.</p> <p>Corridors 2 and 5 were therefore discounted.</p> <p>Corridor 4 was chosen as the preferred option. Although this option would result in loss of woodland where it crosses the River Blackwater, the route of the corridor has been altered since the supplementary consultation to avoid woodland on the east bank of the River Blackwater, therefore reducing tree loss. This option also avoids the landfill and Local Nature Reserve at Whetmead, and properties along Blue Mills Hill and Ishams Chase.</p> <p>The Examining Authority refers to ancient woodland. Ancient woodland is defined by the Woodland Trust as areas of woodland that have persisted since 1600 AD in England. No ancient woodland is recorded on the Ancient Woodland Inventory for this location. There is also no mention of ancient woodland within the citation for Blue Mills Local Wildlife Site, nor have Essex Wildlife Trust raised ancient woodland as a concern within their response to the statutory consultation or any representation made during the examination. 'A Map of the County of Essex' (Chapman and Andre, 1777) does not show any woodland within the gas diversion corridor, which suggests the woodland at Blue Mills has not been continuous since 1600 AD and therefore would not qualify as ancient woodland, albeit it does show other woodlands such as Chantry Wood to the east.</p>	
<b>Historic Environment</b>			
2.11.7	<p><b>Applicant and MDC</b> Maldon District Council expressed a concern at the ISH1 over the impact on the Grade 1 Listed church of St Nicholas. The Applicant has stated at para 84, REP3-012 that the impact on the church would be neutral. Does the Council have any further comment on this?</p>	<p>During the construction phase, no impacts are expected on the church on Little Braxted Lane. Little Braxted Lane is shown on the Outline Construction Traffic Management Plan Appendix B [REP2-004] Sheet 10 as an excluded route. The Applicant can confirm that this extends south to the junction of Little Braxted Lane with Lea Lane, and therefore past the church. Therefore, no construction HGVs would be using the road past the church, and therefore there would be no impacts to the setting of the church' The Applicant looks forward to receiving further information from the council in due course and will discuss this with them further at our next arranged meeting on 18 April 2023.</p>	<p>There are two strands to MDC's concern:</p> <ol style="list-style-type: none"> <li>a) the Project's impact from the diversion of the Gas Main Pipeline with access for Gas Main construction and maintenance vehicles via Little Braxted Lane and,</li> <li>b) direct access to Junction 22 via Little Braxted Lane for all transport modes (not connected to construction or maintenance of the gas main).</li> </ol> <p>An incident did occur in October 2022 where an 18T construction vehicle crossed the 3T limit bridge with 2m width restrictions on Little Braxted Lane and a listed bridge (Mill House bridge) adjacent. Whilst MDC acknowledges Little Braxted Lane is an excluded route for the Project 'on paper' there are no physical restrictions at Junction 22 end or the Lea Lane end to prohibit HGVs or oversized LGVs from accessing Little Braxted Lane either from Junction 22 or at the Lea Lane end. Little Braxted Lane, as a direct access and exit for all transport modes to and from Junction 22 should have appropriate signage at both ends to deter any HGVs or oversized LGVs using Little Braxted Lane for access to and from Junction 22.</p>

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<b>Traffic and Transport</b>			
2.17.3	<p>Please provide a summary assessment of the uncertainties in the traffic modelling. This should include an easily understandable metric for quantifying the different uncertainties (numeric or other quantification) to enable the ExA to understand the areas in which the modelling is least reliable and the reasons for the uncertainty.</p>	<p>A traffic model requires many inputs, spanning such areas as observed traffic counts through to GDP forecasts and projections of licence holders in the future, each of which has their own confidence limits attached. As such, there is no single measure of uncertainty for a traffic model.</p> <p>As described in chapter 6 of the Combined Modelling and Appraisal Report [APP-261], a base year traffic model was developed to represent traffic conditions as they existed in 2019. A process known as ‘validation’ was used to ensure that the model represents those conditions with a sufficient degree of accuracy. Department for Transport traffic modelling guidance (Transport Analysis Guidance Unit M3.1) provides strict criteria on how closely the model should match those observed base year traffic conditions. For example, on a set of pre-defined journey routes through the model, the criteria states that modelled journey times should be within 15% of observed journey times on at least 85% of those routes. In the A12 model, this criteria was passed for 89% of routes in the AM peak, 97% in the Interpeak, and 87% in the PM peak.</p> <p>Several similar criteria exist for traffic flows, for example where modelled flows should be within 15% of observed traffic counts in at least 85% of cases (although different criteria exist for roads with very high or low traffic flows). The A12 traffic model met these various criteria, with further information provided in Chapter 7 of the Combined Modelling and Appraisal Report.</p> <p>While the accuracy of the base year traffic model can be quantified as above, the uncertainties around the predictions of future traffic flows are more difficult to quantify. These are uncertainties that are common to all traffic model forecasts, as highlighted in Transport Analysis Guidance Unit M4. These uncertainties include:</p> <ul style="list-style-type: none"> <li>• National uncertainties around travel behaviour (e.g. due to population growth and the performance of the economy, changes in fuel prices, changes in travel behaviours such as the level of homeworking, changes in licence holding among the population and changes in travel behaviour due to new technology).</li> <li>• Local uncertainties around where housing and employment developments will be built in the future and on how many car trips each development will generate, and around the level of public transport provision.</li> <li>• <b>Uncertainty about driver behaviour when traffic conditions change. For example, if congestion increases, to what extent would drivers prefer to sit in a queue compared to finding alternative routes.</b></li> </ul> <p>While acknowledging the inherent uncertainty within forecasting the future, the Applicant’s core traffic model represents the “most likely” predictions of future traffic levels. The Applicant has used standard traffic modelling guidance and model parameters, growth factors provided by the Department for Transport, and information on local housing and employment developments provided by local planning authorities.</p> <p>There is no simple metric to quantify the uncertainties described above. Instead, some of the impacts of uncertainty can be understood through scenario-based testing of the outputs. By varying some of the inputs it can be shown whether the outputs of the model, and therefore a scheme’s impacts, are sensitive to these assumptions.</p>	<p>MDC draws the ExA’s attention to the fourth paragraph, bullet point 3 of the Applicant’s response:</p> <p><b>“Uncertainty about driver behaviour when traffic conditions change. For example, if congestion increases, to what extent would drivers prefer to sit in a queue compared to finding alternative routes.”</b></p> <p>MDC has consistently raised concerns in its written submissions [REP2-068, REP3-051, REP4-077] regarding ‘uncertainties’ in the baseline traffic flow data:</p> <ol style="list-style-type: none"> <li>The 2019 data has not accounted for accelerated housing growth in the Maldon District.</li> <li>How can the existing poor level of service at the Maldon Road junction with the Duke of Wellington mini roundabout be sustained with the Applicant’s statements of ‘increased queue lengths’ and ‘changing patterns’ of traffic flow at the junction causing congestion.</li> <li>Encourage driver behaviour at the Maldon Road junction with the Duke of Wellington mini roundabout to turn right only to the new Junction 21 for both southbound and northbound journeys.</li> </ol> <p>The ExA witnessed the ‘reality’ of these ‘uncertainties’ at the Maldon Road junction with the Duke of Wellington mini roundabout at the ASI in March 2023. These uncertainties will make the ‘reality’ worse.</p> <p>The Applicant’s response also supports MDC’s consistent points made in written submissions [REP2-068, REP3-051, REP4-077] that driver behaviour will ‘find alternative routes’ if routes are congested elsewhere. The Maldon District has two routes out of the District to connect to the SRN at Junction 18 from the A414 via Danbury and at Junctions 20a and 20b from the B1019 at Hatfield Peverel.</p> <p>MDC has consistently raised a concern regarding the existing poor level of service at the Maldon Road junction with the Duke of Wellington roundabout on the B1019. The Project ‘encourages’ traffic to turn right at this junction for southbound and northbound journeys via the new Junction 21 but there is nothing to prohibit driver behaviour from turning left through Boreham village to access Junction 19 as another ‘alternative route’.</p> <p>The ‘alternative route’ to connect to the SRN is via the A414 to Junction 18. The A414 has 2 existing AQMAs at Maldon and Danbury. MDC is concerned at the impact of ‘alternative route’ traffic on those AQMAs.</p> <p>MDC support’s ECC’s request for monitoring at specific locations [ISH3] from commencement of the Project at the Maldon Road junction with the Duke of Wellington mini roundabout. This is due to the ‘uncertainty’ in the traffic modelling stated by the Applicant.</p>

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		<p>As described in its response to comment REP2-039-003 in the Applicant's Comments on Written Representations [REP3-009], alternative traffic models were produced to represent "high growth" and "low growth" in future traffic demand for the purpose of the Applicant's economic appraisal. These alternative traffic model scenarios were used to understand the impact of such alternative predictions on the value for money of the proposed scheme. A summary of the results of these economic assessments is provided in Section 12.1 of the Combined Modelling and Appraisal Report [APP-261].</p> <p>It should be noted that these alternative scenarios model the impact of higher and lower traffic flows across the entire model area, both with and without the proposed scheme in place. It is not an assessment of the impact of the proposed scheme itself being higher or lower than the core scenario.</p> <p>These alternative scenarios were used for the economic assessment only. The approach to the environmental impact assessment needs to be proportionate in relation to the nature of the potential impacts on local communities and the environment. Consequently, the assessment for noise and air quality is based on the output of the traffic model for the most likely traffic scenario only and not for a range of modelled scenarios.</p> <p>To conclude, there are inherent certainties attached to traffic models which are known and outlined above. However, the approach taken by the Applicant follows national guidance and provides the required level of certainty needed to assess the proposed scheme, inform the design decisions taken and ensure that those decisions and the effects of the scheme are robustly assessed.</p>	<p>Similarly, for monitoring of the AQMAs at Danbury and Maldon from commencement of the Project in response to the Applicant's statement on driver behaviour seeking '<i>alternative routes</i>'.</p>