FIONA MACTAGGART MP

WRITTEN REPRESENTATION

HIGHWAYS ENGLAND'S RESPONSE

1. Introduction

1.1 I am writing about the works to upgrade the M4 Motorway to a Smart Motorway between Junctions 3 to 12, the application for which is currently being considered by the Planning Inspectorate. I have received correspondence from a number of constituents living on The Myrke and in Chalvey in my constituency, who reside near to the areas of proposed bridge widening and are concerned about the potential for a substantial increase in noise created by the works and increased volume of traffic once it is completed.

Highways England Comment

1.1.1 Highways England has responded to relevant and written representations from a number of residents from The Myrke and in Chalvey. Further, Highways England has undertaken extensive statutory and non-statutory consultation as detailed in the Consultation Report (Application Document Reference 5.1).

1.1.2 Traffic modelling and forecasting information have been provided in the Local Model Validation Report (Document 7, Appendix 1 of Highways England's Response to Relevant Representations provided for Deadline I) and Traffic Forecasting Report (Document 3, Appendix 1 of Highways England's Response to Relevant Representations provided for Deadline I). Details of the increased flows on the M4 by various times of day are contained in tables A14 to A17 which add up to an increase in daily traffic flows between junctions 5 and 6 with the Scheme compared to the flows without the Scheme of 13% in the Scheme opening year (2022) and 17% in the Scheme design year (2037). To give some context, an increase in traffic flow of 25% (assuming speed and proportion of HGVs remain the same) is required to result in an increase in noise level of 1 decibel. Changes in noise levels of less than 1 decibel are considered to be negligible. Changes in traffic flow of 13% (in the short term) or 17% (in the long term) consequently result in negligible changes in noise level. Further in relation to traffic, the Scheme can accommodate these increases in traffic flows as the conversion of the hard shoulder to a traffic lane adds an additional 33% of road space.

1.1.3 The noise and vibration assessment, as reported in Chapter 12 of the Environmental Statement (“ES)(Application Document Reference 6-1), used the

forecast traffic levels, with and without the Scheme, to determine the expected noise levels.

1.1.4 During operation, the Scheme will decrease noise in the short term, and have no discernible impact in the longer term. The assessment concluded that the magnitude of impact of noise during the operation of the Scheme is minor beneficial in the short term and negligible in the long term in the vicinity of The Myrke and Chalvey (paragraph 12.10.16 in Chapter 12 of the ES). The significance of effect during the operation of the Scheme is assessed as slight beneficial in the short term and neutral in the long term at this location (paragraph 12.10.16 in Chapter 12 of the ES). These noise reductions in the vicinity of The Myrke and Chalvey are shown in Sheets 11 and 12 of Drawing 12.4 for the short term, and in Sheets 11 and 12 of Drawing 12.5 for the long term (Application Document Reference 6-2).

1.1.5 The detailed construction noise and vibration assessment is provided in paragraphs 12.4.32 to 12.4.87 and Appendix 12.3 of the ES. Overall, the magnitude of construction noise and vibration impacts is negligible or minor and the significance of effect is assessed as slight adverse (ES paragraph 12.10.13). A range of good site practices will be adopted in order to mitigate construction phase noise and vibration. These will be secured in the Construction Environmental Management Plan ("CEMP") pursuant to Requirement 8 of Schedule 2 of the draft Development Consent Order (Application Document Reference 3-1). An outline CEMP was provided as part of the Application for a Development Consent Order (Annex 4-2A to the ES (Application Document Reference 6-3)) and this will be updated by the contractor, in liaison with local communities and relevant stakeholders, during the detailed construction planning, prior to construction of the Scheme.

1.1.6 The majority of the work to construct the new bridges will be carried out during normal daytime working hours. Certain operations would be required to be carried out at night such as installation of the new bridge steel beams complete with falsework and screens, and the subsequent removal of the falsework and screens which would need to take place during partial or full closure of the M4.

1.1.7 Demolition of the majority of the parts of the existing bridges would also need to be carried out at night during partial or full closures of the M4. Where possible,

the bridges will be dismantled rather than demolished, to minimise the duration of the work and any noise/dust arising.

1.1.8 However, the night time works associated with the construction of the new bridges and removal of the existing bridges would be on a relatively small number of discrete occasions and, whilst there may be some noise disruption, forward planning and close liaison with local residents will allow these works to be carried out with the minimum disruption possible.

2. Noise Barriers

2.1 I would ask that the Inspectorate ensures that there are guarantees of effective noise barriers for residents and allotment holders in the area and that such guarantees are properly communicated to those likely to be affected to allay some of their concerns and worries about these proposals.

Highways England Comment

2.1.1 Section 5.8 of the Consultation Report described Highways England's engagement with residents of The Myrke. This engagement included a targeted information exercise on 3 July 2014 and further targeted information during the statutory engagement period between November 2014 and December 2014. Highways England noted local residents' concerns in relation to the noise levels in the area of The Myrke and the proposals resulting from the noise assessment were presented as part of the consultation. Highways England took account of the concerns of local residents by including noise mitigation in the Application.

2.1.2 Highways England confirms that the Scheme will provide noise mitigation, determined as described in Chapter 12 of the Environmental Statement (Application Document Reference 6-1), which include the provision of low noise-surfacing across all lanes for the entire length of the Scheme..

2.1.3 The locations and extents of existing noise barriers and the new noise barriers proposed as part of the Scheme are provided in Drawing 12.2 of the ES (Application Document Reference 6-2), a revised version of which was provided in response to Question E4.7.18 of the Examining Authority's First Written Questions (at Appendix F to Section 4). Sheets 11 and 12 show Chalvey and The Myrke. The new noise barriers which Highways England proposes to install are on the bridge over the railway to the east of Junction 6 and to The Myrke.

2.1.4 The noise and vibration assessment takes into account the presence of these existing and proposed new noise barriers. As can be seen from the drawings referenced in response to paragraph 1.1 above, negligible/minor noise reductions are predicted in the short term and generally negligible noise reductions are predicted in the long term. As a result of this assessment, further noise mitigation in the form of additional noise barriers and/or increasing the height of existing barriers is not required to mitigate the effects of the Scheme.

2.1.5 Notwithstanding the above, there are a few residential areas outside of Chalvey and the Myrke along the Scheme which are currently exposed to higher noise levels, and will continue to be exposed to high noise levels with the Scheme in operation. Paragraph 12.4.112 of the ES notes that there is the potential to improve further the noise climate within the Scheme corridor through enhanced mitigation. The purpose of the enhanced mitigation is to address these areas of higher noise level, which could potentially include the provision of additional noise barriers, or the replacement of existing barriers with higher barriers.

2.1.6 A qualitative appraisal to provide an indication of the potential extent of enhanced noise mitigation is included in Appendix 12.5 of the ES (Application Document Reference 6-3). This enhanced mitigation strategy identifies the potential for provision of additional noise barriers, as outlined in Table A12.5.1 of Appendix 12.5 of the ES and the replacement of some existing noise barriers with higher noise barriers as outlined in Table A12.5.2 of Appendix 12.5 of the ES. Further detailed assessment is required to confirm the potential for enhanced mitigation to be of benefit.

2.1.7 Highways England is working to provide a quantitative assessment of the enhanced mitigation strategy outlined in Appendix 12.5 of the ES. This comprises an iterative process which is employed to estimate the numbers of receptors experiencing specific reductions in noise levels (for an additional noise barrier, as detailed in Table A12.5.1 of Appendix 12.5 of the ES, or replacement of an existing barrier, as detailed in Table A12.5.2 of Appendix 12.5), monetising the benefits of these reductions in noise levels and comparing this monetisation value with the cost of the mitigation to provide a cost benefit analysis, to ensure that the mitigation proposed as part of the Scheme is optimised. Hence, some of the additional noise barriers, and some of the replacement noise barriers, as outlined in Appendix 12.5 of the ES may not be taken forward as a result of this analysis. The

results of that assessment, and the results of the assessment of the landscape and visual impact of any additional noise barriers proposed, will be provided to the Examination in due course.