SLOUGH BOROUGH COUNCIL

COMMENTS ON THE EXAMINING AUTHORITY'S SECOND WRITTEN QUESTIONS

HIGHWAYS ENGLAND'S RESPONSE

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4.2 Landscape and visual effects 4.2.3 The potential for off–site planting to replace planting lost as a result of the scheme and to provide enhanced environmental mitigation was discussed at the issue specific hearing dealing with matters relating to the environment, and London Borough of Hillingdon (LBHill) has identified locations with the potential for off-site planting to provide improvements to visual amenities EV-015 & EV-021. Highways England (HE) indicated that this could be dealt with by means of s253 agreements with land owners. However, there is no means by which such agreements could be secured through the draft Development Consent Order (dDCO), and therefore the Secretary of State (SoS) could not be satisfied that any off-site planting would be achieved.	*SBC raised the same issue of landscape enhancement in its Local Impact Report.*	Paragraph 3.3.3 of Slough Borough Council's Local Impact Report stated: *"SBC notes the landscaping proposals put forward in the Environmental Master Plan (APP- 351) but on present evidence is not satisfied that these would provide the necessary mitigation in winter as well as summer conditions. In the Planning Statement (APP-089, 5.2.18) it is suggested that 'opportunities for environmental enhancement measures have been taken where possible'. SBC considers that there are further enhancement opportunities that should be taken."* Highways England's comment in response was submitted at Deadline III and stated: *"For the M4 J3-12 scheme* [the "Scheme"], *the landscape mitigation strategy comprises the provision of planting to replace the existing vegetation lost to the Scheme during the construction, where possible. The vegetation clearance and mitigation proposals are provided in the Engineering and Design Report, Annex A2, Vegetation Clearance and Annex A1, Environmental Masterplan (EM) (Application Document Reference 7.4). There are not anticipated to be significant residual landscape*

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		and visual effects at Design Year (15 years after construction) due to establishment of planting." In paragraph 1 of Highways England's response to the Examining Authority's Second Written Question 4.2.3 submitted at Deadline V, Highways England noted that: *"With the mitigation proposed for the Scheme within the London Borough of Hillingdon, the majority of visual effects in the Design Year (2037) are predicted to be 'neutral'. However, Highways England acknowledges that 'slight adverse' effects on some receptors are predicted. Notwithstanding this, Highways England does not consider 'slight adverse' effects to be significant (in the context of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended)), and therefore does not consider it necessary to provide further mitigation through the provision of off-site planting to further mitigate the visual effects of the Scheme. Consequently, in this instance, Highways England does not consider it necessary to add a requirement to the dDCO to secure such unnecessary mitigation."* In relation to the environmental enhancement opportunities to which Slough Borough Council makes reference in their Local Impact Report, Highways England considers that the additional noise mitigation measures outlined in the Enhanced Noise Mitigation Study Report (REP5-002, Ref 514451-MUH-00-ZZ-RP-EN-

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		400158), submitted at Deadline V, would provide such enhancement measures from both a noise amelioration and from a visual screening perspective.
Could a requirement be added to the dDCO for a scheme of off-site planting to be agreed with the relevant local planning authorities before the M4 Smart Motorway (M4SM) is brought into operation, with an appropriate implementation clause included, or is this a matter which could be secured through a Development Consent Obligation?	***SBC supports the insertion of this requirement in the dDCO.***	Highways England provided a full response to the Examining Authority's written question at Deadline V (REP5-004).
4.2.4 **Can acoustic barriers be replaced with a type which would support plants, with transparent upper panels?**	***SBC is interested in the design of barriers (for air quality as well as noise mitigation) and welcomes exploration of this alternative type.***	Highways England provided a full response to the Examining Authority's written question at Deadline V.
4.2.5 **Can taller acoustic panels be provided where vehicles using the current hard shoulder might have a view into the upper windows of adjoining properties (for example Holyport Road, Maidenhead)?**	*N/A*	
4.2.6, 4.2.7	*N/A*	
4.2.8 The allotments at The Myrke are a well-used community asset and the introduction of ALR would bring traffic closer to those working on the allotments. Furthermore existing vegetation on the motorway side of the boundary would be lost to the scheme which includes an emergency refuge area and new gantry in this location.	*SBC agrees that the amenity of this community asset would be reduced by the Scheme.*	In paragraph 4 of Highways England's response to the Examining Authority's Second Written Question 4.2.8 submitted at Deadline V, Highways England agreed that, assuming the worst case scenario that all the vegetation between approximate chainages 23+900 and 23+650 (West Bound) is lost along the Order limit boundary as a result of constructing the adjacent Water Main subway (work No. 21),

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		Gantry G4-12 (9.2m high) and Emergency Refuge Area (E4-A2), there would be an adverse visual effect for some users of The Myrke Allotments. Highways England also agreed that Gantry G4-12 will be a new element in views from the allotments, but that this would be set in the context of the Recreation Ground overbridge beyond. In respect of the existing vegetation, the contractor will consider, during the construction, whether any of the existing vegetation can be retained in accordance with the requirements of paragraph 8.2 of the outline Construction Environmental Management Plan ("CEMP") (revised at Deadline V, REP5-002).
What improvements could be made to the treatment of the boundary between the M4SM and the allotments at The Myrke in order to provide a visual and aural screen for allotment users?	***The allotments are located outside Slough Borough but SBC would welcome the opportunity to work with HE and the Royal Borough of Windsor & Maidenhead in finding appropriate treatment.***	In paragraph 4 of Highways England's response to the Examining Authority's Second Written Question 4.2.8 at Deadline V, Highways England agreed to provide a close boarded fence between approximate chainages 23+360 and 23+900 (West Bound). Whilst this fence is not intended to be an acoustic barrier, it will nevertheless have noise attenuation properties. This mitigation measure is secured in paragraph 8.7.1 of the outline CEMP and by Schedule 2, Requirement 8 of the draft DCO. In paragraph 5 of its response, Highways England noted that the proposed close-boarded fence would bring about a beneficial change in winter views as it would screen most of the motorway traffic. In relation to summer views, the fence could be considered a less attractive

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		feature than the existing hedgerow, but it would continue to screen most of the motorway traffic.
4.4.1 Biodiversity and water quality	***No issues are understood to be outstanding in Slough.***	
4.6 Air quality 4.6.1 Definition of significance	***SBC welcomes the ExA's questions which relate to issues raised in Slough's Local Impact Report and at the Hearing. No further comments at this stage***	
4.6.2 Reliability of the HE assessment	***SBC welcomes the ExA's questions which relate to issues raised in Slough's Local Impact Report and at the Hearing. No further comments at this stage***	
4.6.3 Reliability of the HE assessment	***SBC welcomes the ExA's questions which relate to issues raised in Slough's Local Impact Report and at the Hearing. No further comments at this stage***	
4.6.4 Level of uncertainty	***SBC welcomes the ExA's questions which relate to issues raised in Slough's Local Impact Report and at the Hearing. No further comments at this stage***	
4.6.5 Implications for future AQMAs.	***SBC welcomes the ExA's questions which relate to issues raised in Slough's Local Impact Report and at the Hearing. No further comments at this stage***	
4.6.7 Scheme design	***SBC welcomes the ExA's questions which relate to issues raised in Slough's Local Impact Report and at the Hearing. No further comments at this stage***	

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4.6.8 Future proofing the M4SM..... Having regard to submissions on behalf of Slough BC and other IPs concerning the uncertainty of the modelled levels of air pollution from the scheme, we consider that provision should be made for the monitoring of air quality by HE along the route of the M4SM during the periods of pre-construction, construction and operation of the scheme. In the event that monitoring data indicates that the scheme is causing increases to levels of NO2, then an Air Quality Action Plan should be produced for implementation until such time as air quality levels are improved. We therefore invite the applicant to prepare**, in consultation with the relevant local planning authorities**, a requirement to be included within the dDCO which provides for the following: **i. A monitoring strategy for NO_2 detailing monitoring points, methods of measurement and levels of concentration which would trigger action, to be approved by the SoS2 and implemented at least 6 months prior to the commencement of development.** **ii. In the event that the trigger levels are exceeded, a scheme for the management of the M4SM which could include restriction of traffic speeds, restricting traffic flow from feeder junctions, restricting access to**	***The only additional comments we would like to make is that the monitoring strategy for NO_2 should ensure the use of continuous air quality monitoring (which is a more accurate measurement method) in combination with passive diffusion tubes. A meeting between SBC and HE has been requested to discuss the air quality monitoring strategy.*** ***The ExA is suggesting that, in the event of trigger levels being exceeded, management measures would be introduced to control concentrations ahead of physical measures. Could physical measures be considered as an alternative to management measures if these are acceptable to the local planning authority in relation to visual impact issues?***	**<u>AQ Monitoring and Mitigation Request</u>** A number of consultees have asked the Examining Authority to include a requirement in the DCO that requires monitoring and applies a trigger level be placed on the Scheme whereby if the concentration is triggered in the monitoring, mitigation is required. As a first principle, it is important to note that the policy for the inclusion of air quality mitigation is not triggered under the NN NPS in respect of the Scheme. As seen for the A556 scheme, the Examining Authority accepted that an air quality 'trigger' was appropriate on that scheme as the scheme triggered a significant air quality impact and required mitigation. In this instance, the air quality assessment for the M4 Scheme concludes that the impact of the Scheme is not significant and does not affect compliance with the Air Quality Directive ("AQD"). Consequently, the policies set out in the NN NPS around mitigation are not triggered, and there is no need to include mitigation as part of the Scheme or require air quality monitoring. To require Highways England to provide costly monitoring would be disproportionate in circumstances where no significant effect on air quality is anticipated as a result of the Scheme and where the Scheme does not affect the UK's reported ability to comply with the AQD. Environment Impact Assessment ("EIA")

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the route for specific classes of vehicle, or other measures to be submitted to the SoS for approval and implemented within 3 months of such approval. **iii. the event that the management measures are not sufficient to reduce the air quality levels below the trigger value, a scheme for retrofitting physical measures such as air quality barriers should be submitted to the SoS for approval and implemented within 6 months of approval. The measures to be included in this scheme should be in accordance with Best Practicable Environmental Options (BPEO) to ensure future proofing of the scheme.**		concerns the assessment of likely impacts. In this case the assessment is based on assumptions at the time of the preparation of the EIA with respect to guidance and assumptions assumed in the traffic modelling (the basis of the air quality assessment) assembled in accordance with published standards. As the assessment has been completed in accordance with the current guidance in relation to air quality and traffic modeling, it can properly be concluded that the outcomes of the assessment are based on the most reasonable, reliable and robust information available at the time of assessment. It would be unreasonable to place burdens upon a Scheme which had been assessed, in accordance with national guidance, as not requiring the provision of such measures. To do so would be to undermine the promulgated guidance upon which Highways England, the devolved administrations and other highways authorities rely. This is particularly the case for a scheme located on the strategic road network ("SRN") where developments other than the Scheme can affect the flow of traffic, and therefore air quality, on the SRN from a large geographical area over which Highways England has no control or authority. In effect, if a trigger for the implementation of mitigation was included as a requirement in the DCO, Highways England would be potentially liable to find and fund mitigation measures to mitigate the air

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		quality effects of other schemes by third party developers that impact on the M4 over which Highways England has no control. This an unreasonable and disproportionate requirement to place on a body funded by tax payers' money. It should be noted that policy is supported where a distinction can be made between cases where migration is required by policy and where it is not, thus where Highways England have assessed schemes as having a significant impact on air quality, for example the A556 scheme, then air quality monitoring is being installed to provide evidence as to when mitigation measures can be removed and the preferred operation regime can commence. However. absolute trigger levels have not been proposed in these circumstances. Rather, results would be used as part of assessing when the schemes' impacts are unlikely to be significant. The Examining Authority and others have sought the use of trigger levels for the application of mitigation. This is not appropriate because: 1. the basis for applying mitigation is not clear. No significant effects are predicted (unlike for the A556), and the assessment of compliance with the AQD is assessed on a level higher than locally; 2. the A556 approach is not applicable since that scheme was assessed to result in a significant impact in air quality, thereby

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		resulting in a need for mitigation. No significant impact has been assessed for the M4 Scheme; 3. there are no mechanisms by which a mitigation measure can be applied from time-to-time as opposed to consistently. Further, no effect to be mitigated is identified and no policy requirement applies; and 4. there is no mechanism to identify non-scheme-related effects so that any duty of mitigation falls legitimately on those causing effects. **<u>Certainty of assessment</u>** The air quality assessment for the Scheme followed published best practice guidance and datasets when calculating NO2 concentrations at receptor locations. The methodology for model verification, which compares measured values with modelled values, demonstrates that the model is performing within acceptable bounds. Recognising the uncertainty associated with calculation of NO2 concentrations in the future, the calculation of opening year concentrations also followed published best practice guidance set out in IAN170/12. This method uses measured trends in roadside air quality, and conservative assumptions in relation to Euro 6/VI performance, to uplift future year predictions produced by the Defra toolkit. The

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		purpose of this is to ensure that the air quality model outputs used to determine the potential significance of local air quality impacts due to the Scheme are precautionary and take account of anticipated uncertainty. Consequently, there is no need to account for any further uncertainty since the assessment already provides for it. The acceptability of the general approach described above is demonstrated when considering the evidence from Slough BC and Mr Hamilton, who request that to account for uncertainty, locations with modelled concentrations of 36 µg/m³ should be interpreted as exceedences of the NO2 annual air quality objective (40 µg/m³). It is noted that this would be inconsistent with Ricardo's own recommendations to Slough BC when identifying whether to declare an AQMA. For example, in their 2013 Detailed and Further Assessment Report, a measured concentration of 37.8 µg/m³ at a property (corrected for distance) was not deemed sufficient to necessitate declaration of an AQMA because it was not in exceedance of the objective (http://www.slough.gov.uk/downloads/air-quality-detailed-further-assessment-2011.pdf). **Barriers** The evidence from Slough BC and Mr Hamilton postulates that the installation of a roadside barrier could lead to acceptable mitigation of the air quality impacts of the Scheme. As set out previously, Highways England agrees

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		that there is uncertainty concerning the effectiveness of barriers in improving air quality in Slough. Highways England is currently investigating the effectiveness of barriers to mitigate air quality with an onsite trial, but there is currently insufficient data available to draw robust conclusions on the benefits, or otherwise, of barrier performance. In reviewing the available literature, Highways England note that the "Passive methods for improving air quality in the built environment: A review of porous and solid barriers", John Gallagher et al, Atmospheric Environment 120 (2015) 61-70, as referenced by Mr Hamilton, also identifies that barriers have the potential to lead to increases in downwind air pollutant concentrations as a result of plume re-attachment. The same paper identifies that "real world case studies are an important direction for further verification of these methods in the built environment…". This is what Highways England is currently undertaking. In the circumstances, the environmental effects and cost of additional barriers is not justified.
4.7 Noise and vibration 4.7.1 Hours of Working and Construction Activity **With the SoS as the approval authority proposed by the applicant for the dDCO requirement on the CEMP (and other requirements), how will the applicant secure**	***SBC also raised within its submissions concerns about night- time working and requesting restriction of activities at night which have been identified to potentially cause***	Highways England provided a full response to the Examining Authority's written question at Deadline V.

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an appropriate level of consultation with the local authorities in the dDCO? **To what extent does the applicant accept LBHill's proposals with regard to working hours at weekends, and how will these proposals be secured in the dDCO by means of the CEMP?**	***significant impact to local residents***	Night-time working is an essential component in delivering the Scheme. In particular, the response noted: *"There will be a requirement to close the motorway either in part or whole at certain times to allow specific construction activities to proceed. Lane closures must be undertaken at night to minimise the impact on the network and to ensure minimum disruption to traffic and the surrounding area. The low traffic flows at night minimize the exposure hazards to the traffic management installation crews.* *Lane closures will be required also to provide safe working space for key operations. Bridge demolitions in particular will involve full closures of the motorway, hence cannot be carried out during the day. Restrictions on piling activities at night time will be implemented, and piling at night will only be undertaken where access cannot be provided during the day, meaning that lane closures are required to provide safe access.* *During the week, the night time closures will be of a short duration. At weekends, closure periods may be for longer, in order to allow key work items to be undertaken safely.* *Examples of potential night time activities include:* • *Installation of bridge beams;* • *Installation and removal of temporary works that could affect the safe*

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		operation of the M4; • *Bridge demolition;* • *Traffic Management installation;* • *Installation, reconfiguring and removal of traffic management;* • *Resurfacing works to the M4;* • *Underbridge joint replacements;* • *Erection of gantries and associated technology;* • *Cross carriageway ducts and drains; and* • *Delivery and removal of large items of plant into the works."* The work will be planned and coordinated so that the impact of operations on surrounding areas is minimised. The CEMP, which is a live document that will be reviewed throughout the Scheme's development and construction, contains mitigation measures to minimise impacts arising from the construction activities. As secured by Section 12.4 of the outline CEMP, prior to construction, Highways England will seek consent under Section 61 of the Control of Pollution Act 1974 from Slough Borough Council, prior to the commencement of construction works. Background noise readings will be undertaken and noise

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		prediction levels will be calculated for key night time activities. These readings will form part of the application for consent under Section 61 of the Control of Pollution Act 1974 and the CEMP will be revised to reflect this, and any conditions imposed on the consent will be defined in the works information. As set out in Section 4.3 of the outline CEMP, a strategy for regular engagement with key stakeholders will also be developed and included within the CEMP prior to construction. This will include the liaison with local communities, and their representatives, which will be undertaken prior to nighttime operations in order to raise awareness and reduce the potential impact of the construction activities.
4.7.2 Noise Limits During Construction What is the applicant's response to LBHill's concerns on the applicant's proposals for construction noise limits and the Council's proposals with regard to noise mitigation measures?	***SBC also raised concerns about the accuracy of the night time noise prediction modelling, recommending strongly that before any limits are set for night time working the applicant should undertake a night- time noise survey prior to the completion of the DCO process to validate assumptions and where necessary to amend night time noise predictions accordingly***	Highways England provided a full response to the Examining Authority's written question at Deadline V, and addressed noise mitigation measures in that response. The Deadline V response noted that it would not be proportionate for Highways England to be required to carry out verification of night noise predictions before the end of the Examination to determine the accuracy of the noise modelling work. Highways England is confident in the robustness of the model, and in any event, the contractor will be required to seek consent under Section 61 of the Control of Pollution Act 1974 from Slough Borough Council. The contractor will provide all required data and

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		information (including, where necessary, measured noise levels at a set of relevant receptors) for the proposed construction activities as part of the application for consent from Slough Borough Council. This process will address fully Slough Borough Council's concerns regarding the identified receptors (and other receptors within the Slough Borough Council area). The derivation of construction noise limits for the Scheme will be based on Table 12.1 of the Environmental Statement ("ES") (Application Document Reference 6-1, APP-152). For residential properties close to the motorway, ambient noise levels will be higher than the Category C values in Table 12.1 of the ES. Hence, the noise limits will be based on an increase of 3dB in the total noise level (ambient noise plus construction noise).
4.7.3 Enhanced Noise Mitigation Strategy **What is the applicant's response to the specific issues raised by the following affected and interested parties:** **ii. Beverley Hunt (The Myrke resident) REP4-011, who called for an extension to the proposed noise barrier in the vicinity of the Myrke properties;**	***ii. SBC welcomes investigation of the potential to extend this barrier.*** ***SBC within its submissions has requested additional noise barriers be installed alongside Mercian Way Recreation Ground which lies close to the Huntercombe Interchange. This is a park with sports pitches, children's play areas and areas for informal recreation. The amenity of these important community assets would benefit from noise reduction.***	The Myrke was included in the Enhanced Noise Mitigation Study, the results of which were provided to the Examination by Highways England at Deadline V (REP5-002). The proposed barrier provision is detailed within Appendix E of the Enhanced Noise Mitigation Study Report (Ref 514451-MUH-00-ZZ-RP-EN-400158). Sheet 12 is relevant to The Myrke. The recommendation is to extend the proposed new noise barrier to The Myrke (as reported in the ES) westwards. The new length of barrier is 245 metres, as opposed to the

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		previously specified 150 metres. The Scheme includes a new boundary fence comprising a 2.0m high close boarded timber fence running along the boundary of the Order limits, from the Recreation Ground overbridge at chainage 23+900 to the existing environmental barrier at chainage 23+650. Whilst this fence will have some acoustic attenuation properties, Highways England does not propose to install a specialised noise barrier to the allotments at this location. The proposed barrier provision at Mercian Way Recreation Ground is detailed on Sheet 10 of Appendix E to the Enhanced Noise Mitigation Study Report (Ref 514451-MUH-00-ZZ-RP-EN-400158). The recommendation for this area is a replacement higher noise barrier to the west of the Recreation Ground and a new 3m high barrier along the boundary of the Order limits with the Recreation Ground, to provide noise benefits to adjacent residential properties. A byproduct of this will be a reduction in noise levels across the Recreation Ground (in addition to the noise reductions reported in the ES).
4.7.4 Single-sided Noise Barriers	*SBC welcomes the raising of these issues*	
4.7.5 Low Noise Surfacing **Would the applicant please state how the benefits of using low noise surfacing will be secured over the lifetime of the scheme when those benefits are lost as the surface ages?**	*SBC welcomes the raising of this issue*	

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4.9 Effects on travellers (including Traffic Forecasting) 4.9.1 Cumulative Impact. The ExA notes HE's submissions REP4-001 concerning the need to adopt a baseline date for the assessment of cumulative impacts. However ExA considers that a cumulative impact assessment should remain open to review over the period in which an application is proceeding through the consenting process. In this case, High Speed 2 (HS2) and the relocation of the Heathrow Express depot (HEX) are projects which are within the final stages of the Hybrid Bill process. HS2 has cross-party support, and HEX is necessary for HS2 to proceed. Royal Assent may well be gained in time for the start of construction in 2017-18. Since the primary potential for cumulative impact lies within the construction phase of the projects, the ExA considers that provision is required through the CEMP for any cumulative construction impacts that would arise as a result of works on HS2 and HEX during the same period as works on the M4 scheme.	*SBC raised this issue in its Local Impact Report and welcomes the ExA's comments.*	In section 8 (Scheme Programme and Cumulative Effect of Other Strategic Infrastructure Schemes) of its Local Impact Report, Slough Borough Council raised its concerns in respect of the Western Rail Link to Heathrow, Heathrow Express ("HEx") depot relocation and the Heathrow North West Runway Scheme. Highways England provided its comments regarding each of these schemes in the response submitted at Deadline III (REP3-017). Highways England further analysed the position of proposed major infrastructure as collated by the relevant local authorities in the response submitted by Highways England at Deadline V to the Joint Statement on Cumulative Development (REP5-005), which was itself submitted at Deadline IV by the local authorities (Slough Borough Council, London Borough of Hillingdon, Buckinghamshire County Council and South Bucks District Council). In respect of HS2, the reviewed documentation included the Community Forum Area Reports (HS2 London – West Midlands Environmental Statement, Volume 2, Community Forum Area Reports, November 2013). The impacts arising from the construction and operation of HS2 in the Colne Valley are summarised within Area

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		Report CFA7. Based on the review of these documents, Highways England considers that there is no material change in effects, or no effect, as a result of the cumulative impacts of construction traffic arising from HS2 and the Scheme, and on that basis considers that no further assessment is required. In relation to the HEx proposal, Highways England reviewed published documentation in respect of the construction and operation of HEx. The works associated with the construction of the Scheme at junction 5 are scheduled to take place between mid-2018 and mid-2019. On that basis, Highways England agrees that there is the potential for a cumulative impact. However, Highways England expects, based on other major construction projects, that the activities that would require road transport for HEx, such as the site clearance for the depot and main construction, would take place in the early part of the construction sequence, i.e. in 2017-2018. As such, there is the potential to keep the period of potential interaction to a minimum - a short period between June 2018 and September 2018. The second potential impact arises from traffic that could choose to divert from the M4 mainline during construction of the Scheme to use other local routes. However, the main focus for the assessment of the effect of traffic flow diversion on to the routes of concern to Slough

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		Borough Council during the construction of the M4 relates to the year 2020, which is after completion of the HEx depot relocation. On that basis, Highways England considers that there is no further need to consider the cumulative effect of this traffic together with that arising from the construction of the relocated HEx depot.
Can the applicant include, in the outline CEMP, provision for the mitigation of cumulative impacts in the event that there is geographical and timescale overlap between the construction of HS2 and HEX with the M4 scheme? An amendment to R8 in the dDCO is put forward in the list of questions on the dDCO. To what extent would these changes meet the concerns of the local authorities?	***SBC considers that it is essential that the outline CEMP addresses this issue. Clause (g) of the suggested amendment to R8 is welcome.***	Highways England provided a full response to the Examining Authority's written question at Deadline V. As outlined in the response, Highways England has included paragraph 13.5.2 in the updated outline CEMP, which was provided with the Deadline V submission. This paragraph confirms the actions that the contractor will undertake should the construction programmes for other major infrastructure interact. Paragraph 13.5.2 states: *"The Contractor will take appropriate actions, including the design and installation of traffic management schemes:* *a) to ensure safe passage of all traffic through the required road works;* *b) to reduce the likelihood of 'rat running' onto local roads, which may have result in adverse impacts upon the local community;* *c) to mitigate impacts on the local road network and communities and to keep delays and disruptions to traffic to a*

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		minimum; and *d) to mitigate the effects of the authorised development on traffic in combination with the effects of the concurrent construction of any other major developments, including but not limited to HS2 and associated depot relocations associated with HEx."* The provisions in the CEMP will be reflected in the updated CTMP to be submitted by Highways England before the end of the Examination.
4.9.9 Distributional Effects on Local Roads Networks. Re question 23 in the traffic forecasting hearing EV-008, which asked the applicant's response to BCC's assertion in its written representation at Deadline II REP2-039 that the ES submitted in support of the dDCO did not adequately assess the impact of the proposed smart motorway scheme on the local road network during construction or operations and that no mitigation measures have been proposed, BCC in two submissions at Deadline IV, referenced a technical note provided by the applicant, and stated that: 'The impact of the local road network has not been quantified in the documents submitted in support of the DCO'. At Deadline IV, BCC REP4-027 identified 17 locations/junctions that in its view required	*SBC notes the detailed data provided to BCC by HE. Local roads such as the A4, A412 and A355 pass through Slough Borough as feeders to the M4. The potential impact of the Scheme on the local road network in Slough was an issue raised in the SBC Local Impact Report. Further information on the likely impact has been requested from HE but has not to date been received.*	Slough Borough Council raised concerns regarding various aspects of the potential impact of the Scheme on the local road network in Slough within paragraphs 5.7 to 5.11 of its Local Impact Report. Highways England provided its comments regarding each of the points raised in the response submitted at Deadline III. Highways England confirms that further information has been provided to Slough Borough Council, which to date includes the following information taken from the traffic model: • Set of drawings showing flow changes on main routes including the A4, A355 (leading to A412) and A322 (attached to this submission at Appendix A). • Details of turning movements at

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additional assessments, including the A4 corridor, the A335 corridor, the A412 corridor, and the A4007. The County Council went on to state that: 'Due to the time of year it will not be possible to undertake Manual Classified Counts (MCC) prior to the determination of the DCO. As such, the County Council and Highways England are considering how the assessment and mitigation can be secured through the DCO process.'		junctions 5, 6 and 7 (attached to this submission at Appendix B). • Drawing-based details of flow changes at three locations along each of the A355, A412 and A4 routes during construction of the Scheme in both 2017 and 2020 (attached to this submission at Appendix C). During construction of the Scheme, daily traffic flows are forecast to change by <1% on the A4 and A355 routes. During the first phase of construction in 2017, a neutral impact (<1%) change in daily traffic flow is forecast on the A412, increasing to 2% during the second phase in 2020. The junctions with the M4 are more susceptible to flow changes during the peak periods. During construction of the Scheme, traffic flows (excluding through traffic on the motorway) at each of junctions 5, 6 and 7 are forecast to change by between +1% at junction 5 and -6% at junction 6 during each of the am and pm peak periods in both 2017 and 2020. During operation of the Scheme, traffic flows through junction 5 (excluding through traffic on the motorway) are forecast to increase by 3-4% in the am peak but reduce by a similar amount in the pm peak. Traffic flows through junction 6 are forecast to increase by between 4% and 6% during the peak periods and by between 4%

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		and 7% at junction 7, also during the peak periods. Daily traffic flows in the vicinity of the latter two junctions on the A4 and A355 are forecast to increase by up to 4%.
i. Since the responses at Deadline IV indicated significant concerns among some interested and affected parties over distributional effects on the local networks, would the applicant please state its proposed response, the issues that remain unresolved, and measures for securing mitigation for impacts on the local road networks in the dDCO?	***i. SBC shares these concerns and awaits data from HE on the detailed impact on the local road network in Slough.***	Highways England does not agree that there has not been an adequate assessment of the effects of the Scheme on the local road network. Highways England is continuing to engage with the interested and affected parties and has provided Slough Borough Council with the additional information summarised above, the aim of which is to address Slough Borough Council's concerns including, where necessary, the provision of appropriate mitigation. Where issues remain, Highways England will, with the required consultation, implement the mitigation and safeguarding provisions secured within the DCO, the CEMP and the Construction Traffic Management Plan ("CTMP") (updated at Deadline V,REP5-002) as appropriate to provide suitable mitigation and protection.
ii. Are local authorities content that the applicant's approach to local modelling is valid for local roads? If not, what are their alternative proposals and how would they wish them to be secured?	***ii SBC is awaiting a detailed response from HE to requests made for data on the impact on Slough's local roads.***	Highways England noted Slough Borough Council's requests for: • Information on the impact of the Scheme on the A355 and A4 routes; • A copy of the Local Model Validation Report ("LMVR"); • Detailed (preferably using micro-simulation) models of the roads at each junction;

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		• Details of trip diversion during construction; and • A simulation of the closure of the M4 at or between junctions 3, 4, 5 6 and 7 during construction or operation to assist with contingency planning. Highways England has provided further information to Slough Borough Council which includes the following extracts from the traffic model: • A set of drawings showing flow changes on main routes including the A4, A332 (leading to A412) and A355; • Details of turning movements at junctions 5, 6 and 7; • Drawing-based details of flow changes at three locations along each of the A355, A412 and A4 routes during construction of the Scheme in both 2017 and 2020; and • a copy of the LMVR. Highways England does not consider it necessary to undertake separate detailed modelling of the junctions within Slough on the basis that the magnitude of change in terms of the distributional effects on local road traffic flows described above, does not constitute a material level of impact sufficient to require mitigation.

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		Highways England will continue to liaise with Slough Borough Council, and other interested local authorities, in relation to planning for the construction (for which provision has been made in the CTMP) and future operation of the Scheme, as set out in the CEMP.
vi. What is the applicant's response to the BCC submissions? If it is not possible within the timeframe to do surveys, what proposals do the applicant and BCC have, and what form of DCO requirement or Development Consent Obligation would secure the local road network both in the BCC locality and elsewhere along the scheme?	***vi SBC registers its interest in the response to BCC's submission given that these road corridors, which act as feeders to the M4, pass through Slough.***	Highways England provided a full response to the Examining Authority's written question at Deadline V. In addition, revisions to the CEMP and CTMP have been submitted. Section 7.4 of the CTMP makes provision to protect the local road network both in Buckinghamshire County Council's area and elsewhere along the Scheme, including in Slough.
dDCO 8.25 **R8** 8.-(1) No authorised development must commence until a CEMP, substantially in accordance with the outline Construction Environmental Management Plan, annexed to the outline EMP (dated ?), has been submitted to and approved by the Secretary of State, in consultation with the Environment Agency [and the relevant local planning authority, TBC]. (2) The CEMP must include— .... (g) traffic management measures, including	*SBC welcomes the aim of addressing the lack of detail in the earlier version of the CEMP.* *In suggested clause 8 (1) the role of the local planning authorities as consultees is left to be decided. SBC hopes that the final DCO will allow for the local planning authorities to be fully consulted.* *SBC welcomes suggested clause (g)*	Highways England provided a full response to the Examining Authority's written question at Deadline V. Highways England confirms that the relevant local planning authorities will be consulted on the CEMP and has amended requirement 8(1) accordingly in the draft DCO submitted at Deadline V.

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provision for the mitigation of the effects of the authorised development on traffic in combination with the effects of the **concurrent construction of any other major developments, including HS2 and HEX;**		