

From: Mandip Malhotra [mailto:mmalhotra@hillingdon.gov.uk]  
Sent: 19 February 2016 10:25  
To: Richard Price  
Subject: Re: LBH Deadline VII submission

Dear Richard

Please accept my apologies but i forgot to include an appendix in one of my submissions on Wednesday (Environment submission), please therefore find enclosed a final version of all LBH submissions (including appendices) for DEadline VII.

Many thanks  
Mandip

On 17 February 2016 at 18:56, Mandip Malhotra  
<mmalhotra@hillingdon.gov.uk> wrote:  
Dear Richard

Please find attached the Councils Deadline VII submission.

Please can you confirm receipt.

Kind regards  
Mandip

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Mrs Mandip Malhotra (née Dhillon)  
Interim Major Applications Manager

Planning Department  
Residents Services  
3N, Civic Centre  
London Borough of Hillingdon  
Tel: 01895 558384

Deadline VII Submission (17<sup>th</sup> Feb 2016)Written Record of Oral Submissions and additional information requested; Environment

Comments are only provided where relevant (not all Hearing Questions are therefore listed below)

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| <b>Environment</b>   |  |
| <b><u>NOISE AND VIBRATION</u></b>  |  |
| 1. Working hours at the weekend  |  |
| <p>Re question 4.7.1 of Examining Authority's (ExA) second round questions PD-011 regarding working hours at the weekend:</p> <p>i. Would the applicant and London Borough of Hillingdon (LBHill) please state the current position, and whether agreement has now been reached?</p> | <p>No further agreement has been reached, at the hearings, the Council outlined its final position and concern which related to the current proposed Saturday hours of working, which are proposed as 07:00 to 16:00.</p> <p>However it is noted that the contractor requires an hour either side of these times for start up and close down of activities. This would mean that on a Saturday, lorries delivering, engines running etc would start up at 6am. Given that these weekend hours are more sensitive, the Council object to these working hours, which should be changed in the CEMP to state 08:00 to 16:00 on Saturdays.</p> <p>The councils reason for this objection is with regard to the proximity of residential properties to the 'scheme' but also the impact of the land which is being temporarily acquired at Sipson Road, which is in very close proximity to local residents. The proximity of residential properties of the scheme deem it necessary to ensure Saturday working does not cause significant harm to residents and to negate complaints being received.</p> |
| ii. What additional controls and/or consultation is LBHill seeking through the CEMP that are not available to the council through section 61 applications?   | <p>Following further discussions with the applicants at the hearings, it is considered that s61 applications may be sufficient to provide the additional controls and recourse for non-compliance.</p>   |

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| <p>2. Night time noise during construction Re question 4.7.2 of ExA's second round questions:<br/>                 Would the applicant and local authorities – notably Slough Borough Council (BC), South Buckinghamshire District Council and LB Hill, but not excluding other councils - please state the current position and whether agreement has now been reached?</p>  | <p>It is however requested that the CEMP complaints procedure outlined is enhanced by the applicants to provide greater 'notification' to local residents of night time working, such as posters/notices in and around the effected local areas and where it is known in advance, notification via the local newspaper would also be welcomed.</p> <p>This will assist in a number of ways, through allowing residents to make informed decisions to go away over the effected periods, or to negate complaints to both LBH and HE from residents about the noise generated overnight.</p>  |
| <p>3. Enhanced Noise Mitigation Study (ENMS) Re question 4.7.3 of ExA's second round questions regarding the Enhanced Noise Mitigation Study (ENMS)<sup>1</sup>, the applicant has published its ENMS which includes a number of mitigation measures, EM1-EM34. The applicant has also, in its response to the second round questions, addressed the ten issues raised by affected and interested parties.<br/>                 i. Would these parties, and any other parties who may wish to do so, please provide their observations on the ENMS?</p> | <p>The Council welcome the ENMS in so far as the heights of barriers have been increased and additional barriers provided at Cranford Park.</p> <p>However, clarification is required on the height of barriers at southern side of M4 (above Cranford park) as this height is not noted on the published plan (Sheet 15 of Drawing 12.4 of the ES).</p> <p>In addition to this, the Council have made further representations at Deadline VI seeking additional height and additional barriers to mitigate the visual impact of the works, please can these representations be read alongside the Deadline VI submissions made by the Council.</p> <p>We look forward to receiving the details of the additional/new barriers at St Pauls/St Peters subway, north and south.</p> |

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| <p>iv. Do the local authorities agree with this cost-benefit approach being used to determine which areas should have additional barriers?</p>  | <p>No objection raised to the use of cost benefit.</p>  |
| <p>4. Single-sided noise barriers and noise reflection Re question 4.7.4 of ExA's second round questions:<br/> i. Would LBHill, Mid and West Berkshire Local Access Forum, and Arborfield and Newland Parish Council please provide their observations on the applicant's response?</p> | <p>It is accepted that the proposed noise assessment was carried out in accordance with the DTRN, but the Council wish to see Best Available Techniques used to protect residents health, which we maintain should include validation data to support the assumptions made.</p> <p>The applicants agent did advise at the Hearings that HE were investigating if validation data was available. The council would welcome seeing such information and will comment further if it is received.</p> |

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| <p>5. Low-noise surfacing Re question 4.7.5 of ExA’s second round questions:<br/> i. Can the applicant please state whether requirement 5 in Schedule 2 of the dDCO will be made specific, so that the minimum 15-year maintenance period for low-noise surfacing is secured?<br/> ii. Is the deterioration in noise reduction one of the factors that would be taken into account when deciding the timing for whether to replace the road surface? If so, at what frequency will the deterioration in noise reduction be measured, at which locations, and how will this be secured in the dDCO?</p> <p>The Council supports the ExA requirement for low noise surfacing (or other alternatives) to be provided in perpetuity, rather than just for a 15 year period.</p> |  |
| <p><b><u>B. VISUAL IMPACT</u></b></p>   |  |
| <p>2. Paragraph 5 of the Explanatory note to clarify the position on lighting columns (submitted at Deadline V), states that the revised heights have been considered by the landscape architect for the scheme who predicts no perceptible change to the visual impact.<br/> · Can the applicant provide further details of how this conclusion was reached?</p>   | <p>Until the Council is provided with a plan to show the locations of these 15metre high columns, it cannot provide comments on the visual impacts assumed by HE. The council therefore reserves its position until the plan of these 15m masts is submitted to the Examination.</p> |
| <p>3. The use of lighting columns up to 16m high has not been discussed in the ES.<br/> i. Has the Zone of Visual Influence taken into account the inclusion of lighting columns which may be up to 16m high?<br/> ii. Can the applicant provide plans showing the locations of lighting columns which are proposed to be higher than 12.9m?</p>  |  |

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| <p>iii. In locations where the applicant intends the columns to be higher, does this mean there will be fewer columns? Or are the numbers proposed to be the same?</p>   |  |
| <p><b><u>C. TRAFFIC FORECASTING</u></b></p>  |  |
| <p>3.Uncertainty in modelling Re question 4.9.7 of ExA's second round questions regarding uncertainty in modelling:<br/>         · Would the applicant, Buckinghamshire County Council, and LBHill please state the current position with regard to dialogue between the applicant and the two councils, highlighting areas now agreed, areas not yet agreed and proposals for action? Is the Construction Traffic Management Plan (CTMP) tabled at Deadline V now satisfactory from the Councils' points of view?</p>   | <p>It was confirmed at the Hearings that whilst the Council had met with HE in December and received further information in Jan 2016, there were insufficient Highways Officer resources to review the information provided.</p> <p>The Council have now held a telecom on Monday 15<sup>th</sup> Feb and whilst there remain areas of disagreement, the applicants have agreed to provide an indicative scope of works to undertake further surveys, post determination of the DCO. These surveys would identify the need for any mitigation measures to be put in place if required.</p> |
| <p>4. Effects on local road networks Re question 4.9.9 of ExA's second round questions regarding effects on local road networks:<br/>         · Would the applicant and other interested parties please state the current position with regard to dialogue between them, highlighting areas now agreed, areas not yet agreed and proposals for action?</p>   | <p>Whilst the applicants wish for this level of additional survey work to be secured through the Statement of Common Ground (SoCG), the Council do not consider the SoCG to be a binding document and therefore wish to secure any additional survey and mitigation via Unilateral Undertaking.</p>  |
| <p>5. Re question 4.6.8 of ExA's second round questions regarding future proofing for the M4 Smart Motorway, the applicant has argued that the traffic and air quality forecasting is sufficiently robust, and that 'there is no need for air quality mitigation measures', nor 'a need for a scheme-specific monitoring strategy' as a future proofing measure in the DCO 'as there are no significant impacts predicted'. HE confirmed in answer to second round question 4.6.2 iii that the outputs from the traffic model for do minimum and do something for 2022 have been used in the air quality assessments for the scheme. In order to further assess whether it would be appropriate to allow for a level of uncertainty in the air quality forecasts, the ExA is considering the basis for the traffic forecasting in more detail, and will ask questions at the hearings concerning the following topics:</p> | <p>The Council is still awaiting the applicants scope of work and will comment further in this regard in the final written submissions.</p>  |

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| <ul style="list-style-type: none"> <li>· Choice of traffic forecasting model form</li> <li>· Matrix development and data sources</li> <li>· Model validation Documents to be referred to in questions:</li> <li>· Traffic Forecasting Report (TFR) Oct 2014 (Deadline 1 Doc 3, Appendix 1) REP1-003</li> <li>· Local Model Validation Report (LMVR) May 2013 (Deadline 1 Doc 3, Appendix 7) including pages 18, 21, 40, 43, 52, and 73; Section 2.7 including commentary re. Fig 2.20; Section 3 and Section 5 Figure 5.1; Section 5.4.4 matrix validation pages 57 and 59; Section 5.5/5.6; Section 5.6.2; Section 7.7 p.101; Section 8.1 p.102 REP1-003</li> <li>· TAG M2 Section 4 (4.4/4.5) and Section 5 (5.1/5.6); TAG Unit 3.19 (Now Unit M3.1) para 8.1.1</li> </ul> |   |
| <p><b><u>D. TRAFFIC SAFETY</u></b></p>   |   |
| <p>Comparative Measurements from M25</p> <ul style="list-style-type: none"> <li>· Would the applicant please provide an update on the measurements that are underway on the M25, as discussed at the first M4 Smart Motorway hearings in November 2015, and due by January 2016?</li> </ul>  | <p>The ALR reports submitted by HE at Deadline VII are clear to indicate two things:</p> <ul style="list-style-type: none"> <li>- There are identified anomalies in the results recorded and presented which require further surveys in order to establish if these were anomalies or are in fact the current situation;</li> <li>- Monitoring results are only available for 12 months, and in order to be reliable, 3 years worth of data is required.</li> </ul> <p>On this basis, it is the Councils position that only limited weight can be given to the documentation submitted, especially where significant anomalies have been recorded. To this end, it is considered necessary that the M4 scheme provides adequate monitoring with regard to noise and air quality in order to ensure the mitigation proposed is achieving the goals set and where mitigation is not achieving the noise and air quality levels assumed, further mitigation is put in place.</p> |

| <b><u>E. AIR QUALITY</u></b>   |   |
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| <p>1. Re question 4.6.8 the applicant states at paragraph 14 that the 'scheme is assessed as not having a significant air quality impact it is, however, still likely to lead to some worsening at a small number of properties' REP5-004. At response to question 4.6.6 10 receptors are predicted to be above the annual average NO2 objective (B867-B871, B877-B880 and X9). The applicant states that only two of the ten receptors would be considered as part of the overall evaluation of significance (X9 and B867) as they have changes greater than 0.4µg/m3 .</p> <ul style="list-style-type: none"> <li>• Can the applicant confirm that these are the only receptors forecast to exceed the annual average NO2 objective? Can the applicant also state what mitigation measures are proposed at these locations?</li> </ul> | <p>In response to question 4.6.1 of the ExA's second round of questions, LBH, in its Deadline VI submissions, appended a spreadsheet showing the model results for 78 receptors using the AURN for verification (as provided to LBH by HE), together with the impact descriptors from the EPUK/IAQM guidance. The results indicate 15 receptors with negligible impacts, 60 with slight, 2 with moderate and 1 substantial.</p> <p>LBH remain of the view that it is not inappropriate to present the results of this assessment to the ExA for consideration and for the SoS to decide what weight to give these results.</p> <p>In regards to the EU LV test for compliance Prof Laxen explained this is a national model which determines compliance at 4m from the road and doesn't necessarily include all the road networks. This is very different from a local assessment.</p> <p>LBHill has provided a note to the ExA (Appended) providing further explanation (Note: EU Limit Value Compliance).</p> |
| <p>3. Within the response to oral hearings REP5-005 HE comments on LBHill's consultant's review of the methodology for calculating air quality impacts.</p> <ul style="list-style-type: none"> <li>• Is LBHill content with the response from the applicant? If not, what are the outstanding concerns?</li> </ul>   | <p>In regard to trends in nitrogen dioxide concentrations at the Hillingdon AURN monitoring station, a note has been prepared jointly by LBHill and HE. The agreed note is being submitted by HE.</p> <p>Attached at appendix B is graph illustrating the Council's concerns around the approach of HE. The graph presents the AURN data results in relation to the baseline position adopted by HE at the same location as monitoring site but not using its data. It also shows the future projections for the receptors in the near vicinity to the AURN site on opening. Note, the baseline data is presented using source data from monitoring sites, and not at receptors. The future projections are presented at specific receptors but not for the individual source data points used for presenting the baseline data. <i>The data is taken from the</i></p>  |



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|  | <p><i>environmental statement. The AURN data is actual real time monitoring data.</i></p> <p>In regards to the methodology, in particular the derivation of the LTTE6 results, LBH is still in discussions with the HE on this issue.</p> <p>HE produced a note on the methodology that was provided to LBH 5 minutes before the afternoon session of the Hearings on 11 February 2016. A discussion has been held since with HE, providing LBH with a greater understanding, but LBH has not reached a final position on the use of the LTTE6. LBH noted that HE was unsure whether the LTTE6 approach has been used on other schemes.</p> |
| <p>6. The continuing uncertainty regarding real driving emissions was referenced in the Defra document ‘Improving air quality in the UK – Tackling nitrogen dioxide in our towns and cities’ REP5-004, Appendix E. Within that document a press release from the European Commission dated 28 October 2015 was referenced which said ‘currently produced Euro 6 diesel cars exceed the NOx limit 4-5 times (400%) in real driving conditions compared to laboratory testing’. A further document ‘Real-world Exhaust Emissions from Modern Diesel Cars’, Vincente Franco et al, October 2014 referenced by HE REP5-005 states that ‘the average on road emission levels of NOx were estimated at 7 times the certified emission limit for Euro 6 vehicles.’ Within the paper the worst performing car was identified as having a conformity factor of 25.4, i.e. 25.4 times the certified emission limit.</p> <ul style="list-style-type: none"> <li>• Can the applicant and the local planning authorities give their considered views on the possible impact of these figures on the modelling of the scheme currently and in the future?</li> </ul> | <p>LBH retain their view that there is sufficient uncertainty to support the requirement for a monitoring strategy to be accompanied, where necessary, by appropriate mitigation.</p>   |
| <p>7. In response to question 4.6.3 at 3ii Table 2 the applicant gives NOx emission rates for a single diesel car.</p>   | <p>See response to Q6 above.</p>  |

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| <ul style="list-style-type: none"> <li>• Can HE confirm if these represent the levels adopted in the air quality assessment? If so, how do they compare to levels using 5xRDE and 7xRDE as indicated in the documents referred to in the preceding question?</li> </ul> <p>What difference would it make to the outcomes of the HE assessment if the levels were increased to those referred to in the Defra and the paper by Vincente Franco et al referenced in the preceding question?</p>  |  |
| <p>8. In the technical report issued with Defra’s document ‘Improving air quality in the UK - Tackling nitrogen dioxide in our towns and cities’ at section 6.1, the issue that vehicle performance and emissions in the real world have not corresponded with those measured in the European test cycles is considered. An alternative scenario was modelled based on the assumption that emissions would be higher than previously predicted and the comparative results are presented in Table 6.1. This shows that the number of zones not meeting the limit value in 2020 would increase from 8 to 30 if the Euro 6 emissions do not perform as modelled.</p> <ul style="list-style-type: none"> <li>• Can the applicant and the local planning authorities give their considered views on the effect on the relevant zones within the scheme if this scenario is realised and what measures should be taken to mitigate the effects? In addition, the views are sought on how this would affect compliance of the zones within the scheme with the National Policy Statement for National Networks (NPSNN) at paragraphs 5.10 – 5.13.</li> </ul> | <p>LBH retain their view that there is sufficient uncertainty to support the requirement for a monitoring strategy to be accompanied, where necessary, by appropriate mitigation.</p>  |
| <p>10. In response to question 4.6.8 REP 5-004 at paragraph 9 the applicant states that it has not been able to consult with the eleven local authorities in time for the 8 January Deadline V and hence has provided an initial response.</p> <ul style="list-style-type: none"> <li>• Have any discussions been held with the local authorities concerning future air quality issues? If so, which local authorities</li> </ul>  | <p>LBH raised questions about the LTTE6 methodology on 30 November 2015 and despite chasing on numerous occasions did not receive a response until during the Hearings.</p> <p>On 4<sup>th</sup> February 2016, HE invited LBH, and other local authorities, to a meeting. This was held on the 9<sup>th</sup> February. Since that meeting the HE</p> |

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| <p>have been consulted, what has been discussed, and what are the outcomes?</p>  | <p>has drafted two notes, one in regard to trends at the Hillingdon AURN monitoring station, one on the LTTE6 methodology, these were only made available to LBH during the Hearing days on 10<sup>th</sup> and 11<sup>th</sup>.</p> <p>In regard to trends in nitrogen dioxide concentrations at the Hillingdon AURN monitoring station, a note has been prepared jointly by LBH and HE. The agreed note is being submitted by HE.</p> <p>In regards to the LTTE6 methodology, LBH has not reached a final position on its use.</p> |
| <p>11. At paragraphs 16 and 17 the applicant states that it does not agree that a requirement on future proofing is necessary proportionate or appropriate in respect of the scheme. It goes on to state that HE ‘is looking to achieve improved air quality across the Strategic Road network.’ In the Highways England Licence REP4-005 the aims and objectives are listed at Part 4 and states that ‘the Licence holder must, in exercising its functions and complying with its legal duties and other obligations, act in a manner which it considers best calculated to:</p> <ul style="list-style-type: none"> <li>a. Ensure the effective operation of the network;</li> <li>b. Ensure the maintenance, resilience, renewal, and replacement of the network;</li> <li>c. Ensure the improvement, enhancement and long-term development of the network;</li> <li>d. Ensure efficiency and value for money;</li> <li>e. Protect and improve the safety of the network;</li> <li>f. Cooperate with other persons or organisations for the purposes of coordinating day-to-day operations and longterm planning;</li> <li>g. Minimise the environmental impacts of operating, maintaining and improving its network and seek to protect and enhance the quality of the surrounding environment;</li> <li>h. Conform to the principles of sustainable development.’ 4.2(c) is further defined in paragraph 5.6(c): </li></ul> | <p>In response to question 4.6.8 of the ExA’s second round of questions, LBH, in its Deadline VI submissions, sets out why they believe there should be a monitoring strategy to be accompanied, where necessary, by appropriate mitigation.</p> <p>LBH heard nothing during the Hearings to changes their view on this matter.</p>  |

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| <p>‘Provide for sufficient flexibility and future-proofing in planning the long-term development and improvement of the network, taking account of long-term trends, uncertainties and risks - including new and emerging technologies and long-term trends in climate and weather conditions.’</p> <ul style="list-style-type: none"> <li>• As the terms of the Highways England Licence specifically states that future proofing must be taken into account can the applicant clarify why it does not see the need to incorporate future proofing for elements such as air quality, climate change and other uncertainties and risks into this scheme such as by requirement in the dDCO?</li> </ul>  |   |
| <p>11. IAN 175/13 para 2.4 discusses exceedance levels. Whilst exceedances of less than 0.4µg/m<sup>3</sup> are considered to be imperceptible, any exceedance above that level would indicate a risk that a new exceedance in excess of the EU Limit Values would be created. There are a number of locations along the route of the scheme where the exceedance is forecast to be within an imperceptible range, but these results depend on the emissions limits adopted in the assessment being attained. The ExA considers that there is a high level of uncertainty in the future emission levels that will be achieved for Euro 6/V1 vehicles, which in addition to the usual uncertainties which must be inherent in any modelling exercise, give reasons for the dDCO to provide safeguards in the event that emissions levels are higher than the level adopted in the M4SM assessment. Sections 4.2(c) and 4.2(g) of the HE Licence set out the duties and the obligations of the company regarding long term development and minimising environmental impacts of the network. However, the ExA is not satisfied that these duties and obligations are sufficiently targeted to ensure that measures would be taken to secure mitigation for the M4 scheme in the event that the levels forecast in the air quality assessment are not achieved.</p> | <p>LBH would strongly support the ExA’s request for the HE to reconsider the potential for mitigation measures.</p> |

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| <ul style="list-style-type: none"> <li>• The applicant is requested to reconsider the potential for mitigation measures against breach of EU Limit Values as a result of the scheme which could be included within the dDCO, and which would be in accordance with the terms of the HE Licence.</li> </ul>   |  |
| <p>13. In response to LBHill REP5-005 at 27 HE states that a monitoring scheme for the scheme would be challenging as total concentrations of pollutants will relate to elements out of HE's control. Elements such as realisation rates of new vehicle uptake into the national fleet, vehicle emission technology performance etc are listed.</p> <p>i. Can the applicant clarify why these elements would be a challenge as it has previously stated that these elements have been taken into account in its modelling process?<br/>HE goes onto say that the background air quality includes contributions such as industrial and power emissions etc. However, the Defra air quality plans state that 80% of NO2 emissions in the UK are from transport REP5-004, Appendix E.</p> <p>ii. Can the applicant explain why then background air pollution from other sources cannot be estimated and factored into the monitoring results?</p> | <p>LBH notes the ExA comments at the Hearing in regard to how monitoring has taken place on other HE schemes such as the M25 Smart Motorway Trial.</p> <p>LBH believe this supports the Council's view that it is possible for monitoring to be carried out and requests again that this is put in place with an appropriate mitigation strategy to follow, where relevant.</p> <p>Prof Laxen pointed out at the Hearing that the change over time is important. The AURN monitoring station is currently reporting an annual mean of around 52ug/m3, the ES suggests this will be as low as 36ug/m3 by 2022, representing a large reduction over a short time. Given the uncertainties that have been highlighted by LBH, there needs to be a precautionary approach which includes monitoring to assess the accuracy of the HE assessment of absolute concentrations, supported by the preparation of substantive mitigation measures should this not prove a reality.</p> |
| <p>F. WATER ENVIRONMENT</p>  |  |
| <p>1. DCO requirements In the Statement of Common Ground (SoCG) with the Environment Agency (EA) REP5-002 at 4.3 it states that the wording of requirements relating to floodplain compensation and maintenance, water quality, biodiversity management and the CEMP have still to be agreed.</p> <p>i. Can the applicant and the EA provide an update on the wording of these requirements (R8, R14, R23, and R26)? Where there has been agreement, the wording should be submitted? At 4.4 of the</p>  | <p>Whilst LBH made no representations during the Hearings, we await the further revision of the FRA (Deadline VII) and will submit any additional comments at Deadline VIII on the revised FRA.</p>  |

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| <p>SoCG, the EA has reserved its judgment on the potential mechanism for discharging the requirements of the DCO involving the Secretary of State.</p> <p>ii. Has the EA reached a formal position?<br/>If so, the EA is requested to provide it.</p>  |  |
| <p>1. Flood Risk and mitigation</p> <p>At 4.6 of the SoCG the EA did not agree that the Flood Risk Assessment (FRA) adequately assessed the fluvial flood risk, but would review the new FRA submitted at Deadline V.</p> <p>i. Is the EA now satisfied that the risks are adequately assessed? If not, please identify any outstanding issues.</p> <p>At 4.7 of the SoCG it is stated that further discussions will take place to ensure that where floodplain compensation is required it can be demonstrated that it is viable, hydraulically linked and on land within the order limits and in HE's control.</p> <p>ii. Could both parties provide an update including the discussion on suitable alternative floodplain compensation areas if the current areas are not viable?</p> <p>At 4.9 it is not agreed that an increase of 10mm of flood level is acceptable. However HE has stated that they are seeking no increase in flood level.</p> <p>iii. Please confirm if the EA is now satisfied with the position in the updated FRA.</p> <p>BCC, in the summary of oral submission at question 6, raised concerns from South East Water (SEW) regarding ponding of water and poor operational capacity of the drainage system and requested a more detailed maintenance plan to cover drainage REP4-032. HE in its response says the M4 was not designed to the current HE design standards and that the design is not resilient to the predicted impacts of climate change REP5-005. HE also states that it is required to carry out maintenance in accordance with its licence</p> |  |

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| <p>REP5-004. Section 4.2(b) of the licence states that HE should 'ensure the maintenance, resilience, renewal, and replacement of the network'.</p> <p>iv. What assurance can the applicant give that the terms of the licence are sufficient to ensure the maintenance, resilience, renewal and replacement of elements of the network such as the drainage systems?</p> <p>South East Water stated that it would provide comment whether they are satisfied that the scheme had considered potential risks to groundwater and mitigation on receipt of the Hydrological Risk Assessment (HRA).</p> <p>v. As this has now been issued to SEW can it confirm if it is now satisfied with the position in the HRA? If not, please identify outstanding issues. Can the applicant and SEW give an update on their SoCG?</p> |   |
| <p>G. OTHER MATTERS</p>   |   |
| <p>5. Has progress been made in discussions between the applicant and BCC in respect of Old Slade Lane mitigation?</p> <p>1. In its response to summaries of oral hearing submissions REP5-005, the applicant advised that the SoCGs with LBHill and Slough BC are still not agreed.</p> <ul style="list-style-type: none"> <li>• Would the applicant and the Councils please state whether they intend to submit the SoCGs before the close of the examination, and if so by which dates?</li> </ul>   | <p>LB Hillingdon do intend to finalise the SoCG and a final copy will be issued before closing date of 3<sup>rd</sup> March 2016.</p> |

## **Appendix A: EU Limit Value Compliance and the Planning System.**

### **EU Limit Value Compliance and the Planning System**

The EU Directive (2008/50/EC) makes clear that compliance with Limit Values is the responsibility of the Member State; in the UK's case, the nominated competent authority is the Secretary of State for Environment and Rural Affairs, acting on behalf of the Government. It also makes clear that compliance is to be assessed by **monitoring**, supported, if the Member State elects to do so, by **modelling**. The monitoring is to be carried out to the standards set in the Directive.

#### **Monitoring**

In the UK, the Government has set up the Automatic Urban and Rural Network (AURN) of air quality monitoring stations. These prescribe to the requirements of the Directive and provide an accurate reflection of the air quality levels at a given location.

The AURN is made up of continuous monitors at various locations which include: 1) Roadside monitors that accurately report the air quality impacts directly from traffic; and 2) background monitors that are located away from sources to provide accurate information on background ambient air quality levels.

Diffusion tubes can also provide monitoring data. These are less reliable than automatic monitoring stations but due to their cost and practicalities of placement, are often used to give a fairly crude understanding of air quality. Diffusion tubes do not conform to the stringent Directive requirements as a consequence of being less accurate. The London Hillingdon monitoring station is part of the AURN, which follows the prescribed methodology and provides specific air quality data in close proximity to the M4.

Monitoring data should take precedent over any modelled data and the AURN should be considered to be the highest standard in determining air quality pollution levels.

#### **Modelling**



To complete the compliance checklist the Government has chosen to support the AURN with modelling. The model chosen was developed by DEFRA and is known as the Pollution Climate Mapping (PCM) model. There are just 123 stations as part of the AURN consequently; modelling is used to derive air quality pollution levels for a much wider area.

The modelling uses the captured data from background monitoring sites and predicts ambient concentration levels over 1km grid squares.

A separate modelling exercise is undertaken to determine the concentrations alongside certain roads. The model uses roadside monitoring data to predict concentrations along longer sections of roads at a point 4m from the roadside.

### **Compliance**

The result of the process is that modelled outputs, based on the source data from monitoring sites will provide two datasets; one for the purpose of determining concentrations over 1km grid squares and another for determining roadside concentrations along certain roads.

However, the 123 AURN stations across the Country do not provide a comprehensive dataset for all grid squares. Consequently, grid squares where data has been captured are used to supplement areas where there are none. Similarly, the compliance of roads is complicated by also having a relatively small collection of source data.

The compliance check is therefore undertaken at a strategic national level and uses a methodology that provides a means of determining air quality levels on a comprehensive basis. However, it is recognised that the spatial resolution of this dataset is coarse and therefore not an entirely accurate reflection of air quality levels at a given location.

Appendix B:

