

## **Application by Highways England for an Order Granting Development Consent for the M42 Junction 6 Improvement**

### **The Examining Authority's third written questions and requests for information (ExQ3)**

**Issued on 23 September 2019**

The following table sets out the Examining Authority's (ExA's) third written questions and requests for information – ExQ3.

Questions are set out using an issues-based framework derived principally from the Application documents.

Column 2 of the table indicates which Interested Parties (IPs) and other persons each question is directed to. The ExA would be grateful if all persons named could answer all questions directed to them, providing a substantive response, or indicating that the question is not relevant to them for a reason. This does not prevent an answer being provided to a question by a person to whom it is not directed, should the question be relevant to their interests.

Each question has a unique reference number which starts with 3 (indicating that it is from ExQ3) and then has an issue number and a question number. For example, the first question is identified as Q3.1.1. When you are answering a question, please start your answer by quoting the unique reference number.

If you are responding to a small number of questions, answers in a letter will suffice. If you are answering a larger number of questions, it will assist the ExA if you use a table based on this one to set out your responses. An editable version of this table in Microsoft Word is available on request from the case team: please contact [M42Junction6@planninginspectorate.gov.uk](mailto:M42Junction6@planninginspectorate.gov.uk).

Responses are due by **Deadline 6: 11 October 2019**.

### Abbreviations used, including in previous ExQs

<b>PA2008</b>	The Planning Act 2008	<b>LIR</b>	Local Impact Report
<b>Art</b>	Article	<b>LPA</b>	Local planning authority
<b>ALA 1981</b>	Acquisition of Land Act 1981	<b>MP</b>	Model Provision (in the MP Order)
<b>BoR</b>	Book of Reference	<b>MP Order</b>	The Infrastructure Planning (Model Provisions) Order 2009
<b>CA</b>	Compulsory Acquisition	<b>NPS</b>	National Policy Statement
<b>CPO</b>	Compulsory purchase order	<b>NSIP</b>	Nationally Significant Infrastructure Project
<b>dDCO</b>	Draft DCO	<b>R</b>	Requirement
<b>EM</b>	Explanatory Memorandum	<b>SI</b>	Statutory Instrument
<b>ES</b>	Environmental Statement	<b>SoS</b>	Secretary of State
<b>ExA</b>	Examining authority	<b>TP</b>	Temporary Possession

### The Examination Library

References in these questions set out in square brackets (eg [APP-010]) are to documents catalogued in the Examination Library. The Examination Library can be obtained from the following link:

<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010027/TR010027-000278-M42%20J6%20Examination%20Library%20PDF%20Version.pdf>

It will be updated as the examination progresses.

### Citation of Questions

Questions in this table should be cited as follows:

Question reference: issue reference: question number, eg ExQ3.1.1 – refers to question 1 in this table.

<b>ExQ3</b>	<b>Question to:</b>	<b>Question:</b>
<b>3.1.</b>	<b>General and Cross-topic Questions</b>	
3.1.1.	Applicant	<b>Lighting</b> Please provide to the Examination a copy of the review report referred to in paragraph 8.3.6 of the ES [APP-053], at paragraph 8.1.2 [REP2-021] and quoted in ExQ 1.0.2 [PD-006].
3.1.2.	Applicant	<b>Work No. 69 (main site compound)</b> Is it intended that the Outline Environmental Management Plan [APP-172] is to be updated to include the Outline Management Plan for the Main Site Compound [REP3A-003] or are changes to be made to the dDCO [REP3-002] that will ensure that it is secured by Requirement 4?
<b>Environmental Statement [APP-046 to APP-164]</b>		
<b>3.2.</b>	<b>Air Quality ES Chapter 6</b>	
3.2.1.	Applicant and SMBC	<b>Air quality directions</b> The Panel would welcome an update on the progress made in ensuring that SMBC can fulfil its obligations relating to Ministerial Directions on air quality.
<b>3.3.</b>	<b>Cultural Heritage ES Chapter 7</b>	
3.3.1.	Applicant and SMBC	<b>Archaeology</b> The ExA would welcome the comments of the Applicant and SMBC/ the County Archaeologist on the implications of the findings of the Archaeological Investigation Report [REP4-004] for the conclusions of Chapter 7 of the ES [APP-052].

<b>ExQ3</b>	<b>Question to:</b>	<b>Question:</b>
3.4.	<b>Landscape – ES Chapter 8</b>	
3.4.1.	Applicant, SMBC, CPRE and Mr Phillip O'Reilly	<p><b>Lighting</b>                      The scheme would introduce street lighting into locations which currently have little or limited lighting. This includes:</p> <ul style="list-style-type: none"> <li>• The area of the main line link road approach to Junction 5A as it emerges from cutting and rises to the elevated dumbbell roundabouts and overbridge, which would be lit with lighting columns between 12m and 15m in height.</li> <li>• Barber's Coppice roundabout and approaches which would be lit with 12m and 15m high columns, located close to residential receptors at Four Winds.</li> </ul> <p>The ExA note the Applicant's previous responses (ExQ 1.6.9-1.6.11 REP2-007). But, given the information in [REP2-21], is there potential for the night time views to have a significant effect on Viewpoints S, T and EE, given the quantum and height of luminaries relative to existing ground levels and proposed planting? And, is there potential for receptors at Viewpoint EE to experience effects from parts of the lighting for Junction 5A and Barber's Coppice Roundabout in combination?</p>
3.4.2.	Applicant, SMBC and CPRE	<p><b>Lighting</b>                      Is there the potential for the lighting at junction 5a and at Barber's Coppice Roundabout to have a significant effect on the landscape, given the relative isolation of both locations in relation to major lit developments such as the NEC and Birmingham Airport, and given that much of the M42 in this location is in cutting?</p>
3.4.3.	Applicant and SMBC	<p><b>Lighting</b>                      Please indicate what mechanisms are proposed to ensure that the latest lighting technology with the most appropriate lantern and colour temperature will be installed to minimise light-spill and reduce night time visual effects. [REP2-007 ExQ 1.0.1 and REP2-037 ExQ 1.0.1 and 1.0.2, refer]</p>

<b>ExQ3</b>	<b>Question to:</b>	<b>Question:</b>
3.4.4.	Applicant and SMBC	<p><b>Assessment</b></p> <p>It appears from REP3-011 that the Residential Visual Amenity Assessment technical note was not considered within the LVIA and that neither the Landscape Character Assessment (SMBC 2016) nor the Local Character Guide (SMBC 2016) were reviewed to establish the baseline environment for the LVIA. Please explain why these omissions may, or may not, affect the findings of the LVIA.</p>
3.5.	<b>Biodiversity – ES Chapter 9 and HRA</b>	
3.5.1.	Applicant, Natural England, SMBC and Warwickshire Wildlife Trust	<p><b>Mitigation and monitoring: Surveys</b></p> <p>The Panel would welcome an indication of when the 'biodiversity off-setting report' (referred to in REP2-033) and the Fungi surveys will be made available to the Examination. In addition, is any further comment required in relation to the Lichen Survey [REP4-003] or the GCN survey [REP4-005]?</p>
3.5.2.	Applicant, Natural England, SMBC and Warwickshire Wildlife Trust	<p><b>Mitigation and monitoring: Protection</b></p> <p>Are measures required in the OEMP to ensure the protection of the white-clawed crayfish in the Shadow Brook catchment located to the east of the proposed scheme?</p>
3.5.3.	Natural England, SMBC, WCC, NWBC and Warwickshire Wildlife Trust	<p><b>Mitigation and monitoring: Ecology</b></p> <p>Are there any outstanding concerns raised by the Applicant's responses set out in section 5.2 of REP3-011 in connection with the effects of the scheme on the SSSI at Coleshill and Bannerly Pools and the ecological connectivity of the area?</p>
3.5.4.	Natural England, SMBC, WCC, NWBC and Warwickshire Wildlife Trust	<p><b>Mitigation and monitoring: Bickenhill Meadows SSSI</b></p> <p>The ExA would welcome the Applicant's response to the comments from Natural England [REP4-017] regarding the 'Bickenhill Meadows SE Unit Draft Position Statement'.</p>
3.5.5.	Natural England, SMBC, WCC, NWBC and Warwickshire Wildlife Trust	<p><b>Mitigation and monitoring: Ancient Woodland</b></p> <p>The ExA would welcome comments from Natural England, The Woodland Trust and SMBC on the Applicant's Soil Survey Report [REP4-007] submitted at Deadline 4.</p>

<b>ExQ3</b>	<b>Question to:</b>	<b>Question:</b>
3.6.	<b>Geology and Soils - ES Chapter 10</b>	
3.6.1.	Applicant and SMBC	<b>Contamination</b> Please explain why it may or may not be necessary to test more than 4 groundwater samples within the DCO site. If additional testing would be necessary, please indicate when this data may become available to the Examination?

ExQ3	Question to:	Question:
3.7.	<b>Noise and Vibration – ES Chapter 12</b>	
3.7.1.	Applicant and SMBC	<p><b>Noise policy and significant adverse effects</b></p> <p>The Panel understand the responses to ExQ 2.6.1 and 2.6.2, but they do not agree with them; the responses confuse a SOAEL with an unacceptable noise environment. The NIR offer an insulation package to reduce external noise to an acceptable internal level, eg <math>35\text{dB } L_{\text{Aeq}, 16\text{hr}} \approx 37\text{dB } L_{\text{A}10, 18\text{hr}}</math>, (not achievable by a closed single glazed window, normally resulting in a reduction of only about 25dB(A)). The internal level might be acceptable, but the external noise level would remain 'unacceptable' and, for that reason, the original guidance (now revoked) was that 'planning permission should not normally be granted' for residential development in areas falling within NEC-C (<math>\approx 68\text{dB } L_{\text{A}10, 18\text{hr}}</math> and above). Such a noise environment might engender material changes in behaviour; not sitting out in the garden or keeping windows closed, both contributing to a diminished quality of life. But, those changes in behaviour do not identify the SOAEL currently suggested; the derivation is the other way around. The Defra Study quoted (NANR316) falls into the same trap; there is no cogent reason why 20%, rather than 10%, of the population must be 'highly annoyed' for the effect to be 'significant'.</p> <p>In contrast, the WHO guidance is derived from observed changes in behaviour, attitudes or other physiological responses (all examples of the outcomes from an appropriately defined SOAEL, according to Government Guidance - 30-005-20190722, updated July 2019), since <math>55\text{dB } L_{\text{Aeq}, 16\text{h}} \approx 57\text{dB } L_{\text{A}10, 18\text{hr}}</math> is taken to engender the onset of serious community annoyance. Moreover, that level is confirmed in the latest WHO Environmental Noise Guidelines (2018) since it is strongly recommended that noise from road traffic should be below <math>53\text{dB } L_{\text{den}} \approx 55\text{dB } L_{\text{Aeq}, 16\text{hr}} \approx 57\text{dB } L_{\text{A}10, 18\text{hr}}</math> as 'road traffic noise above this level is associated with adverse health effects. Although the NIR have served as the basis for a SOAEL in several previous NSIPs, that does not justify the fallacy, particularly in a rural location where people might reasonably be expected to experience the 'quiet enjoyment' of their gardens (see also ExQ3.7.2, below).</p> <p>Please provide any additional explanation necessary as to why a day-time SOAEL should be set at a level which might preclude the 'quiet enjoyment' of residents' gardens.</p>

ExQ3	Question to:	Question:
3.7.2.	Applicant and SMBC	<p><b>Noise policy and significant adverse effects</b></p> <p>Our suggestion that an appropriate daytime SOAEL might be set at 60dB <math>L_{A10,18h}</math> was based on the WHO Guidelines as indicated above, albeit with 3dB(A) added for simplicity and robustness. Those Guidelines have informed the definition of the NECs in the old PPG24 and they chime with some standards, eg BS 8233 2014. The distinction between the CNG and the ENG is more apparent than real. Not only does the latter largely confirm the level of the former (as indicated above), but also an important indicator of the latter is similar to the former, namely that 10% of the population is 'highly annoyed' by the noise of road traffic. It is recognised that the incidence of 'high annoyance' occurs at lower noise levels (providing the basis for a LOAEL) as well as the onset of ischaemic heart disease where 'road traffic noise is above this level'. The NPSE assiduously avoids identifying any standard. It states that: It is not possible to have a single objective noise-based measure that defines SOAEL that is applicable to all sources of noise in all situations. Consequently, the SOAEL is likely to be different for different noise sources, for different receptors and at different times. It is acknowledged that further research is required to increase our understanding of what may constitute a significant adverse impact on health and quality of life from noise. However, not having specific SOAEL values in the NPSE provides the necessary policy flexibility until further evidence and suitable guidance is available. Hence, precedents should not automatically apply, and the Panel consider that an appropriate SOAEL should reflect the largely rural characteristics of the area and the residential nature of the affected settlements. Of course, the consideration of the economic and social benefits of this road scheme must be integrated with its adverse environmental effects. But that depends on properly balanced judgement. It should not entail a SOAEL set above a level masking evident significant adverse effects resulting in acknowledged material changes in behaviour.</p> <p>For those reasons, please re-assess the significance of the operational traffic noise effects against a day-time SOAEL set at 60dB <math>L_{A10,18h}</math>.</p>



ExQ3	Question to:	Question:
3.7.3.	Applicant and SMBC	<p><b>Noise policy and significant adverse effects</b></p> <p>The Panel agree that an external noise environment of 55dB <math>L_{Aeq,8h}</math> would result in an internal level of about 30dB <math>L_{Aeq,8h}</math> behind a closed single glazed window. 'Having to keep windows closed most of the time because of noise' is one characteristic of a SOAEL set out in the Noise Exposure Hierarchy (30-005-20190722). But although that identifies a 'material change in behaviour', it does not identify a level where the onset or incidence of that material change might occur. The WHO Guidelines provide some insight since they suggest that 45dB <math>L_{Aeq,8h}</math> is the level at which the onset of sleep disturbance would occur inside bedrooms behind a partially open window. And, that level is confirmed in the latest WHO Environmental Noise Guidelines (2018), which indicate that the sleep of 3% of respondents is highly disturbed by external noise at roughly 45dB <math>L_{night} \approx 45dB L_{Aeq, 8hr}</math>. As above, there is no obvious reason why 45dB <math>L_{Aeq, 8hr}</math> should not be the SOAEL in this location and in relation to the noise sensitive properties affected here; medical effects are not explicitly listed as a 'descriptive characteristic' in the Noise Exposure Hierarchy (although they do help to identify an 'unacceptable adverse effect') and a LOAEL of 40dB <math>L_{Aeq, 8hr}</math> could still be appropriate.</p> <p>Hence, please provide any additional explanation necessary as to why a night-time SOAEL should be set at a level where more than 3% of residents would be likely to suffer a highly disturbed night's sleep, unless sleeping behind closed windows.</p>
3.7.4.	Applicant and SMBC	<p><b>Noise policy and significant adverse effects</b></p> <p>For similar reasons to those outlined above, please re-assess the significance of the operational traffic noise effects against a night-time SOAEL set at 45dB <math>L_{Aeq,8h}</math>.</p>

ExQ3	Question to:	Question:
3.8.	<b>Population and Health – ES Chapter 13</b>	
3.8.1.	Applicant, SMBC and Open Space Society	<p><b>Assessment; footpaths</b></p> <p>The Panel agree that the implementation of route A [REP3-018] under the DCO would be likely to entail a material change. Although that need not be an insurmountable obstacle to the scheme, it might be administratively easier to pursue the proposal in conjunction with SMBC. The response from SMBC would imply that they believe the current proposals to be adequate. Nevertheless, the Applicant and SMBC are asked to indicate whether or not a joint arrangement to implement route A might be pursued and, if the latter, why it is inappropriate to adhere to the policy set out in paragraphs 3.15-3.17 of the NPSNN in this particular case.</p>

ExQ3	Question to:	Question:
<b>Transport Assessment Report [APP-174]</b>		
3.9.	<b>The relationship to other projects and the robustness of the traffic modelling</b>	
3.9.1.	The Applicant, SMBC and WCC	<p><b>The growth gap</b></p> <p>The Panel welcome the responses to ExQ 2.9.1. We now know that although the traffic forecasts for 2041 do not incorporate all the jobs envisaged in the emerging planned vision for Solihull, this scheme is expected to be an integral element to accommodate the overall growth currently anticipated, as follows:</p> <p>Phase 1 Highway Works were completed in 2016 with the A45 South Bridge over the West Coast Main Line.</p> <p>Phase 2 are the improvements by the Applicant at Junction 6 of the M42.</p> <p>Phase 3 are works by HS2 and UGC to modify junctions on the A45, A452 and A446 due to start by the end of 2019 and to be completed before 2026.</p> <p>Phase 4 would be further improvements to address growth in the Hub area after 2026 and up to 2041 outlined in the UK Central Hub - Growth and Infrastructure Plan. These involve the provision of further road capacity, one potential solution being link roads on both sides of the motorway between the new M42 J5a and the existing J6 providing direct access to the UK Central Hub and the HS2 'Interchange Station'.</p> <p>Is this all the detail currently available? The need for the scheme identified in the Planning Statement includes facilitating the regional growth outlined in the UK Central Hub proposal [APP-173, paragraph 3.3.5]. And, one of the 4 objectives [paragraph 3.5.2] is to encourage continued investment in the regional economy and support new corporate, commercial and residential opportunities, including the proposals by UK Central. Also, a 'strategic objective' set out in the Statement of Reasons is to support new corporate, commercial and residential opportunities including proposals for UK Central [APP-018, paragraph 1.9.14].</p> <p>Hence, if it is available, please provide any further detail of how this scheme might integrate with currently envisaged proposals for future growth.</p>