From:	Murray, susie
To:	M42 Junction 6
Cc:	Cowling, Graeme; Horswill, Paul; Gleave, Jamie; Bryant, Marion; Butterfield, Ian; Robinson, Michael
Subject:	20022337 Natural England ExAs Third Written Questions – Deadline 6
Date:	10 October 2019 13:35:19
Attachments:	ExA 3 Natural England 101019.pdf

Good afternoon

M42 J6 Scheme Improvement TR010027
20022337 Natural England ExAs Third Written Questions – Deadline 6

Please find attached Natural England's response to the Examiner's third written questions.

We have noted questions 3.5.1 – 3.5.5 have been specifically directed at Natural England and, therefore, have accordingly provided our response at this time.
For those two questions we have not been able to provide a substantive response we will provide a further submission in the coming week

Many thanks – Suse

Susan Murray
Lead Adviser (Planning)
West Midlands Area Team - Natural England

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Date: 10 October 2019
Our ref: 295000 ExA 3 Natural England 101019 final
Your ref: TR010027 Deadline 6 Natural England

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BY EMAIL ONLY

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Dear Sir / Madam

Application by Highways England for an Order Granting Development Consent for the M42 Junction 6 Improvement
The Examining Authority's written questions and requests for information (ExQ3) - Issued on 23 September 2019

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

Natural England has considered the third round of written questions and finds a series of questions either directly requiring a response from ourselves or potentially benefitting from our input. Our summary responses are provided in the table overleaf.

Furthermore, Annex A provides further comment as regards ancient woodland and grassland translocation soil suitability (report *8.55 Soils Survey Report)*. Annex B proves Natural England's detailed comments in respect of *Report 8.48 Lichen Survey 2019***.** Annex C provides Natural England's comments in respect of the *Report 8.82 Bat Survey Report.*

We understand that the deadline for responses is 11 October 2019.

If you have any queries relating to the advice in this letter please contact me at the details below.

Please note, however, I will be unavailable from 11 October until 5 November 2019. If your matter is urgent please contact my colleague Paul Horswill via his email Paul.Horswill@naturalengland.org.uk or by telephone [redacted].

Yours faithfully

[redacted]

Susie Murray
West Midlands Area Team - Planning Lead Adviser
Natural England
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Table of NE responses to ExAs third Written Questions

ExQ1	Question	Natural England Response
3.5	**Biodiversity – ES Chapter 9 and HRA**	
3.5.1	**Mitigation and monitoring** : 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]?	**Biodiversity Offsetting Report and Fungi Survey** Natural England confirms it has not as yet had sight of these documents. We understand that the Fungi Survey is intended submission at Deadline 6. **Lichen Survey Report (8.48)** The site is assessed as being regionally important for lichens and as having some bryological potential. This assessment adds weight to the importance of this irreplaceable ancient woodland habitat. See Annex B of this correspondence for further Natural England comment in respect of the survey including woodland management recommendations. **GCN Survey Report (8.52)** Natural England has considered report *8.52 Great Crested Newt Report 2019.* We concur with AECOMs conclusions that the updated survey information does not alter the impact assessment and as such the mitigation proposed remains appropriate. Consequently, Natural England confirms that our assessment of the previously submitted draft licence applications and the letter of no impediment (LONI) we issued on 16 November 2018 remain valid.
3.5.2	**Mitigation and monitoring: Protection** 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?	Natural England is still reviewing these and will submit a formal response shortly after Deadline 6. We apologise for the delay.
3.5.3	**Mitigation and monitoring: Ecology** 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?	
3.5.4	**Mitigation and monitoring: Bickenhill Meadows SSSI** The ExA would welcome the Applicant's response to the	Natural England confirms we have not as yet received a formal response to our comments on the 'Bickenhill Meadows SE Unit Draft Position Statement' submitted to your

ExQ1	Question	Natural England Response
	comments from Natural England [REP4-017] regarding the 'Bickenhill Meadows SE Unit Draft Position Statement'.	authority 2 September 2019. We understand that the SSSI Management Plan will be issued to us for comment shortly which we hope will address these issues.
3.5.5	**Mitigation and monitoring: Ancient Woodland** 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.	See Annex A of this correspondence for Natural England's detailed comments in relation to the *8.55 Soils Survey Report: Soil suitability assessment for ancient woodland and grassland translocation.*

Annex A - Report 8.55 Soils Survey Report: Soil suitability assessment for ancient woodland and grassland translocation

Prepared by Dr Marion Bryant Woodland and Trees Specialist, Specialist Services and Programmes, Natural England 7/10/19

Grassland soil translocation

As a qualified grassland ecologist with specialist expertise in grassland creation and restoration, I comment on the soil suitability assessment for grassland translocation. Please note that these comments made are without reference to the grassland translocation plan context, including knowledge of the plant communities to be translocated, and these comments only relate to this report. Please refer to the Area Team for such comments.

The soils survey results show that the donor and receptor sites have different soil types, particularly in terms of drainage. The donor site has a freely draining sandy loam (wetness class 1) and the receptor site has a poorly draining clay loam (wetness class 3). The report suggests that the wetter soils at the receptor site may encourage additional wet grassland species. Without detailed knowledge of the plant community to be translocated I cannot comment further on this point. Both sites have low nutrient neutral topsoils and subsoils (Phosphate index 0). The report concludes that the soils at both sites are suitable for grassland translocation; based on the evidence seen, I have no reason to question this recommendation.

As the weed burden at the receptor site is high this will need managing, including spraying off the existing vegetation prior to translocation, as recommended in the report. However, it may be prudent to strip the receptor site topsoil if a significant proportion of perennial weed seeds could be present in the seedbank, with potential to create a future weed burden. Seedbank trials would identify the level of risk in this respect.

The report makes various recommendations on the methodology for grassland translocation. The report appears contradictory in recommending translocation of topsoils with turves included and then referring to cultivation of the topsoil into the receptor site, with no mention of the turves, and in the summary and conclusions only referring to the donor site topsoil being imported. Natural England would recommend translocation of intact turf and topsoil blocks, removed in order and placed in the same order on the receptor site, without interim storage and preferably the on same day. Soil structure results indicate that this should be possible; however, should it prove impracticable to transport topsoil and turf in intact blocks, we would recommend topsoil spreading coupled with turf translocation.

The report recognises the importance of the donor grassland topsoil resource and recommends consideration of its alternative use within the scheme, such as for creation of wildflower road verges. The report cites the low nutrient status of the receptor site topsoils as suitability of the receptor site for grassland creation using a seed mix. This suggestion seems slightly at odds with the report's objective to assess soil suitability for grassland translocation.

NB: As a general rule, it is useful to report actual values for soil nutrient analyses, as well as indexes, as this can aid interpretation of results. While we understand that standard methodology has been used in this case, it is generally useful to highlight the test methodology type and what is being measured for each nutrient, as this facilitates ease of comparison across studies. We note that the full laboratory analyses were not appended to this report as stated.

Aspbury's Copse ancient woodland soil translocation

As a general comment the report talks about ancient woodland translocation and Natural England would like to point out that this only refers to translocation of certain elements of the woodland

ecosystem, namely: soils, coppice stools, saplings and deadwood; and that no attempt is being make to translocate the entire habitat.

The survey findings indicate that both donor and receptor soils are broadly similar in characteristics, both being poorly draining clay loams. In terms of soil nutrients the donor soils are slightly acidic, with Donor site 1 (east of the M42) having low nutrient topsoil, and Donor site 2 (west of the M42) having moderately fertile topsoil. Subsoils from both donor sites are of neutral pH with low available nutrients.

Receptor site topsoil is neutral with high nutrient levels (Phosphate index 4); subsoil has low available nutrients (Phosphate index 0). The report concludes that the souls are moderately suited to translocation, and goes on to make recommendations on translocation methodology. Natural England supports this view and the recommendations and wish to highlight the importance of:

- Soil stripping the nutrient-rich topsoil of the receptor site prior to soil translocation to minimise potential for a weed burden.
- Not working or tracking on soils when wet / plastic to minimise compaction risk.
- Not translocating subsoils to minimise risk of soil structural breakdown.
- Cultivation of receptor site to alleviate any compaction and facilitate tree root penetration.
- Use of the loose tipping technique to avoid trafficking on the restored surface.
  Natural England would normally advise laying soil profiles intact, as cited in the report, however, the high risk of compaction damage to the soils in question is such that we agree with the recommended methodology.
- Move material when trees are dormant in the autumn / winter.
- That coppice stools, saplings and deadwood are all translocated.
- Tree-pit planting for heavier standards.
  It would be useful to know what the recommended suitable permeable backfill material will consist of.

Natural England are pleased to see that the surveyed soil receptor site is considerably larger than that originally proposed, and understand that this is in line with recent commitments to further explore expansion of compensatory woodland habitat. Natural England would like to re-emphasize the importance of securing compensatory habitat contiguous with the western half of Aspbury's Copse. Natural England look forward to further constructive discussions on compensatory habitat creation and restoration.

NB: As a general rule, it is useful to report actual values for soil nutrient analyses, as well as indexes, as this can aid interpretation of results. While we understand that standard methodology has been used in this case, it is generally useful to highlight the test methodology type and what is being measured for each nutrient, as this facilitates ease of comparison across studies. We note that the full laboratory analyses were not appended to this report as stated.

Annex B - Report 8.48 Lichen Survey Report 2019

Prepared by Dr Marion Bryant Woodland and Trees Specialist, Specialist Services and Programmes, Natural England 7/10/19

Please note that I comment on this report as a woodland habitat ecologist and not as a lichen specialist. Any comments on specific lichen species would need to be provided by a lichen specialist.

The two halves of Aspbury's Copse support different lichen communities: the eastern half supporting a relatively common and widespread flora of 29 species and the western half supporting a richer species diversity, of 37 species, with scarcer species, some of which are assessed as having regional value. Of a total lichen flora of 44 species, 4 lichen species are nationally scarce, and 2 species of lichenicolous fungi are nationally scarce. However, the report points out that this is a relatively poor lichen flora for ancient woodland, with pollution tolerant species and species indicative of nutrient enrichment. The proximity of the M42 motorway, West Midlands conurbation and intensive agriculture dictates that the impacts of air pollution and nutrient enrichment are highly likely at this location. Whilst the extant lichen flora appears to be limited by the effects of air pollution and eutrophication, especially at the woodland edges, this woodland is a significant site for the broader re-colonisation by lichens should air quality improve.

The eastern half of Aspbury's Copse has a tree canopy which casts a dense shade, which is suboptimal for many lichen species. Mature ash, oak, field maple and poplar trees provide the best lichen substrates in the wood. The report recommends tagging lichen trees, which will assist with future monitoring of the lichen community and will inform suitable woodland management.
Given the results of the lichen survey Natural England make the following woodland management recommendations:

- Undertake selective canopy thinning, especially in the shaded eastern half of the wood, to increase light levels and ameliorate conditions for lichens.
- Retain veteran and mature trees where possible, especially ash, oak, field maple and poplar.
- Retain important lichen trees.
- Do not manage ash out of the woodland because of ash dieback – retain veteran and mature trees where possible.
- Renew the canopy by promoting and protecting natural regeneration (including ash).
- Monitor woodland species and structural composition.
- Promote suitable species (native broadleaves) and structural diversity.
- Retain deadwood in situ.
- Buffer and extend the woodland to reduce edge effects (air pollution and eutrophication) on the ancient woodland and its lichen community. It is particularly important to buffer and extend the western half of Aspbury's Copse in order to protect the regionally significant lichen flora in the western half of the wood.

The site is assessed as being regionally important for lichens and as having some bryological potential. This assessment adds weight to the importance of this irreplaceable ancient woodland habitat.

Annex C - Report 8.82 Bat Survey

Prepared by Dr Paul Horswill, Protected Species Senior Adviser, Natural England 7/10/19

Natural England has considered report *8.62 Bat Survey Report.* We note that two new bat roosts have been identified and that these will be lost due to the development. The draft licence applications will need to be updated to reflect this. However we concur with AECOMs conclusions that these two roosts do not host any new species or type of roost, and that appropriate mitigation has already been proposed. Consequently, our assessment of the previously submitted draft licence applications and the letter of no impediment we issued on 16 November 2018 remain valid.