

**RHS COMMENTS ON REP8-022 UPDATED SOCG
BETWEEN NE AND HE (STILL DATED MARCH 2020)**

1. RHS does not seek to reply to each point made by HE.
2. The usual caveat applies i.e. where RHS has chosen not to seek to reply to a point made by HE, this does not mean that RHS agrees with the point being made.
3. We note that changes have been made to the Statement of Common Ground (“SoCG”) between Natural England (“NE”) and Highways England (“HE”) even though none of the changes is highlighted and the document has not been re-dated.
4. We would request that, going forward, all changes to existing inquiry documents are marked with clear revisions and are also re-dated with a correct date.
5. Overarching comment
6. NE and HE have made changes to their SoCG in a purported attempt to address / “cover off” the submissions relating to Habitats Regulations Assessment (“HRA”) made by the RHS in REP6-024 (Freeths LLP’s Annex) and in REP7-040. RHS also made further HRA submissions on this topic in REP8-054.
7. The changes made by NE and HE to the SoCG still do not address the serious “lacunae”¹ in HE and NE’s approach to HRA as identified by RHS. In general, the changes seek to rely on further unsubstantiated claims and assertions which mean that the Secretary of State, when determining the DCO Scheme, remains unable to conduct a legally compliant Habitat Regulations Assessment of the DCO Scheme.
8. Most importantly, we note that NE and HE have now clearly acknowledged the validity of the submissions made by RHS in its Freeths LLP Annex (REP6-024) by having chosen to include within the SoCG new sections dealing with air quality impacts on invertebrates within the woodland of the SPA <150m from the roads; and compensatory measures.
9. Yet still, and despite now acknowledging the importance of assessing air quality impacts on the SPA woodland <150m from the road in a revised SoCG, HE has failed to take the opportunity, when re-issuing a new draft of the SoCG, to rectify the gaps in Appendix B to the SoCG containing much of HE’s air quality data. The significant air quality data gaps found in Appendix B therefore remain, in particular the absence of any information reflecting the contribution of ammonia and incomplete information for the 0m-150m woodland zone of the SPA. And this is the case despite NE and HE, at the same time, choosing to add a new section to the SoCG asserting that there are no concerns in relation to air quality impacts on the woodland <150m from the roads.
10. RHS repeats again (as we did in REP6-024 and REP8-054): these air quality data gaps must be fully addressed before any proper assessment of air quality impacts on the woodlands of the SPA <150m from the roads can be made; and no lawful HRA can be conducted by the Secretary of State without this information.
11. New paragraph 3.2.7

¹“An appropriate assessment may not have lacunae and must contain complete, precise, and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the proposals on the protected site(s) concerned”: Paragraph 44 of the judgement in Sweetman v An Bord Pleanála (C-258/11) - <http://curia.europa.eu/juris/document/document.jsf?text=&docid=136145&pageIndex=0&doclang=en&mode=lst&dir=&oc=c=first&part=1&cid=645773>

12. This states that:

“Air quality changes within the woodland buffer will not lead to a change in invertebrate resource that would lead to an adverse effect on any of the qualifying species of the SPA”;

and

“The updated air quality assessment has determined that the established woodland buffer will receive lower levels of nitrogen deposition once the Scheme is operational than it currently does. As can be seen by comparing the existing baseline against the in-combination operational Scheme in Table 8 of the Revised nitrogen deposition rates within the SPA [REP5-024], the levels of nitrogen deposition will actually be lower than the existing baseline for all points of all transects within the SPA. Therefore, the established woodland will continue to exist in its current form and will provide the same buffer function and invertebrate resource that it currently does”.

13. It is correct that Table 8 of REP5-024, by comparing the “2015 existing baseline” column against the “2022 operational Scheme” column, shows that the levels of nitrogen deposition will be lower than the existing baseline for all points of all transects within the SPA i.e. for the distance from 0m to 200m from the road side.
14. But this is far from the full story and is therefore wholly misleading:
15. First, Table 8 very significantly underestimates the N deposition figures because it fails completely to account for ammonia. Table 8 does not even attempt to adopt the so-called “precautionary approach” of doubling the changes in N deposition rates (which is acknowledged as appropriate by both NE and HE in paragraph 3.3.1 of the SoCG). It is therefore simply incorrect to conclude that *“the established woodland will continue to exist in its current form and will provide the same buffer function and invertebrate resource that it currently does”*.
16. Secondly, Table 8 fails to provide the key information on “in combination” effects of the DCO Scheme with other plans and projects that is required by the Secretary of State in conducting the appropriate assessment. Again, therefore, it is incorrect to conclude that *“the established woodland will continue to exist in its current form and will provide the same buffer function and invertebrate resource that it currently does”*.
17. The Secretary of State needs to know how the predicted air quality changes relate to critical load for N deposition across the whole SPA. The critical load in this case is 10 Kg N /ha/yr.
18. The Secretary of State needs this information because:
- 18.1. the SPA conservation objective targets require, in relation to “Supporting habitat (both within and outside the SPA): function / supporting process (air quality)”, “Restore as necessary the concentrations and deposition of air pollutants to at or below the site-relevant critical load or level values given for this feature of the site on the Air Pollution Information System” (this is the target for nightjar, woodlark and Dartford warbler, see Appendix A of HE’s SIAA REP4-018). Furthermore, the supporting and/or explanatory notes in relation to this conservation objective target state that “Exceeding critical values for air pollutants may result in changes to the chemical status of its habitat substrate, accelerating or damaging plant growth, altering vegetation structure and composition and thereby affecting the quality and availability of nesting, feeding or roosting habitats. Some of the effects that might be attributable to aerial pollution

could include accelerated and more vigorous growth of bramble, birch...” (our emphasis). This therefore relates to the woodland as it is feeding habitat; and

- 18.2. the conservation objective targets also require, in relation to “Supporting habitat (both within and outside the SPA): function / supporting processes (food availability)”, “Maintain or restore the distribution, abundance and availability of key prey items (e.g. moths, beetles) at prey sizes preferred by Nightjar)”. It is not possible to judge fully the impacts on woodland vegetation and thereby on invertebrate prey <150m from the roads without an understanding how the “in combination impacts” might affect the critical load exceedance.
19. HE and NE have accepted that the SPA woodland <150m from the roads is “supporting habitat”. This is the very basis for HE’s conclusion of adverse effect on the integrity of the SPA in relation to the SPA land-take impact pathway – see for example paragraphs 7.4.4 to 7.4.7 of HE’s SIAA (REP4-018). Paragraph 7.4.4, for example, states “*Although the loss of this woodland habitat would not lead to a physical reduction in the number of distribution of qualifying species, this land take will reduce the overall size of the SPA. The land take will therefore result in a reduction in the supporting habitats of the SPA (for example, providing a woodland buffer between the roads and open heathland areas)*”. Paragraph 7.4.6, for example, reads “*Therefore it is not possible to ascertain that this habitat loss of land [i.e. woodland within 150m of the roads] would have no effect on the integrity of the Thames Basin Heaths SPA ‘alone’ as a result of reductions in the extent and/or distribution of supporting habitat of the three qualifying species (i.e. habitat that support foraging [for] qualifying species by providing an invertebrate resource) and a potential reduction in food resource*”.
20. We note that HE continues to protest (eg in REP8-045, 3.2.1-3.2.5) that the SPA woodland <150m from the roads is not SPA “supporting habitat”. But this position cannot logically be maintained given the unequivocal recognition with the SIAA (7.4.4. -7.4.7 REP4-018) of the fact that the SPA woodland <150m from the roads *is* supporting habitat.
21. The importance of understanding how the predicted air quality changes relate to critical load for N deposition across the whole SPA (0m-200m from the road side) is clearly acknowledged by HE since Table 8 itself shows the “change in the N dep rate” in column 6 and that “change as a % of the lower range of critical load” in column 7 for *all* distances from the road side across the SPA.
22. However, HE has chosen to show in columns 6 and 7 those two changes only in relation to the DCO Scheme alone. Table 8 does not show those two changes (i.e. “change in the N dep rate” or “change as a % of the lower range of critical load”) for the DCO Scheme in combination with other plans or projects.
23. The Secretary of State needs to know these changes for the DCO Scheme in combination with other plans or projects in order to comply with the appropriate assessment duty under regulation 63(1) Conservation of Habitats and Species 2017.
24. Furthermore, HE has chosen not to include in Table 8 a column showing the N deposition contribution of “other plans or projects without the DCO Scheme”. This means that the Secretary of State (or any other reader) cannot assess the missing information i.e. the in combination change as a % of the lower range of critical load.
25. HE has in fact *partially* addressed this gap in Table 4 of Appendix B to the NE / HE SoCG but only for the area of the SPA >150m from the roads, and without ammonia. Data for the area of the SPA <150m from the roads is however not provided. In any event HE insists in REP8-045 at page 11 (item 4.4.3) that “*the results in Table 4 simply show the results of a highly*

conservative sensitivity test and should not be used in the HRA". This is very surprising given that no lawful appropriate assessment can be conducted without this "in combination" data.

26. Thirdly, the SoCG goes onto say that:

"The SPA qualifying species do not rely on a particular assemblage of invertebrates, and instead it is the overall prey biomass and distribution of key prey types (e.g. moths and beetles) which is of primary importance".

27. RHS has dealt comprehensively with this point at paragraphs 25 – 47 of its REP8-054.

28. Fourthly, the SoCG goes on to say:

"It should be noted, as set out in Highways England's response to RHS's REP6-024 submission (TR010030/Volume 9.86 which is submitted at D7), that although a shift in vegetation composition as a result of changes in nitrogen deposition rates could bring associated minor shifts in invertebrate assemblage, these would be associated with sensitive lower plants/lichen species which are not a key component in the foodweb supporting the SPA qualifying species. Therefore, it is the opinion of Highways England that the overall invertebrate biomass available to the SPA qualifying species would remain stable".

29. As noted in RHS' REP9-054, HE has already acknowledged (REP7-008) that *"2.2.12 the forecast changes in nitrogen deposition rates [from the DCO Scheme] may have a very small effect on the assemblage (ie composition) of invertebrate species"*. HE is seeking to distance itself further from this acknowledgment by now making a further assertion (not seen before) about lower plants / lichens and foodwebs of the qualifying bird species of the SPA. This statement from HE is however pure speculation:

29.1. HE has presented no evidence to show which lichens / lower plants are even present in the woodland <150m from the roads or how these species will be affected and the knock-on effects on invertebrate populations.

29.2. HE has presented no evidence for its assertion that that *"although a shift in vegetation composition as a result of changes in nitrogen deposition rates could bring associated minor shifts in invertebrate assemblage, these would be associated with sensitive lower plants/lichen species"*. What is the basis for this conclusion? As noted above we do not even as yet have the air quality data required to form an understanding of the air quality impacts of the DCO Scheme alone or in combination with other plans or projects. There is no evidence to show that any effects are confined to lower plants, neither has any evidence been presented to show which invertebrates are affected, consequently there is no evidence to show that these changes will not affect the feeding resource of the SPA birds.

29.3. HE has presented no evidence for its assertion that *"invertebrate assemblages associated with sensitive lower plants/lichen species are not a key component in the foodweb supporting the SPA qualifying species"*. Again what is the basis for this conclusion? RHS by contrast has presented evidence which demonstrates that effects on invertebrates may arise through changes in the concentration of N in the plants upon which they feed (REP008 054 Appendix entitled 'Further evidence relating to the effects of nitrogen on invertebrates'). These impact pathways are not confined to lower plants.

30. New paragraph 3.2.18

31. HE and NE state that:

“As explained in 3.2.17 above, Natural England were consulted on and agreed with the suite of compensatory measures. The Suite of compensatory measures will retain the woodland buffer, with the exception of an area of woodland clearance either side of the proposed green bridge (areas E1 and E2 as shown in Figure 13 of the HRA figures [AS-006]). This is in order to maximise the effectiveness of this green bridge, and it has been agreed with Natural England. It is acknowledged that this newly created area of heathland closer to the A3 would be exposed to higher levels of nitrogen deposition than the existing areas of heathland and may require a greater level of management”.

32. The above statement does not accord with the Figure AS-012 rev 2. In Figure AS-012 it is clear that there are large areas of SPA woodland buffer <150m from the roads which will be SPA enhancement areas. These areas will either be thinned out or lost as the land is converted to heathland as set out in HE's REP4-014.
33. Therefore, in fact much larger areas of heathland (than HE is conceding here) will be affected by higher levels of nitrogen deposition since these areas are located within the SPA <150m from the roads. This does indeed throw in doubt the NE / HE assertion that *“the clearance of select areas of the woodland buffer as part of the suite of compensatory measures does not conflict with NE's conservation objectives for the TBH SPA”* (3.2.18 SoCG).
34. HE and NE then state:

“In addition, the SPA enhancement area E5 also requires some clearance of the woodland buffer between the heathland and the A3. However, there will still be a retained belt of approximately 75m of woodland at this location separating the heathland from the A3 and this belt of woodland will continue to provide a buffer function.”
35. RHS has measured this area from Figure AS-012 rev 2 and makes it 50m, not 75m. Again this E5 area of proposed compensatory heathland will also be affected by higher levels of nitrogen deposition since it is located within the SPA <150m from the roads.
36. RHS refers to its REP8-054, paragraphs 96-108, where RHS explains why, given the absence of adequate air quality data provided by HE for the SPA zone <150m from the roads, the requirement for technical feasibility of the HE compensatory measures is not met.
37. HE and NE then state:

“However, the SPA management and monitoring plan [AS-014] allows for adaptive management where required, through the long-term provision of works and monitoring targets and under discussion with the steering group”.
38. It is clear that HE does see the presence of nitrogen in heathland areas as problematic, see the SPA management and monitoring plan (REP4 031) at 7.4.3.4 and 7.4.3.9.
39. However, there is nothing in the management plan which is intended to address the impacts of nitrogen from the DCO Scheme in combination with other plans or projects on compensation land. There is no mention of monitoring of N levels in the soil or other indicators of eutrophication. Hence there is no plan for managing nitrogen which again throws into doubt the technical feasibility of the HE compensatory measures.

END