



Summary Air Quality Representation

by Prof. Duncan Laxen,
on Behalf of Royal Horticultural
Society, Wisley:

For DCO Hearings for M25
Junction 10/A3 Wisley
Interchange Improvements

November 2019



Experts in air quality
management & assessment



Document Control

Client	RHS Wisley	Principal Contact	David Alexander
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Job Number	J3881
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Document Status and Review Schedule

Report No.	Date	Status	Reviewed by
J3881/A/1/D1	25 November 2019	Final	Dr Ben Marner (Technical Director)

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1 Summary and Conclusions

- 1.1 This representation has been prepared by Prof. Duncan Laxen, who has many years' experience of assessing air quality in relation to road traffic emissions.
- 1.2 Highways England's ("HE") assessment has shown that the DCO Scheme will give rise to adverse impacts on nitrogen oxides (NO_x) concentrations and nitrogen deposition ("Ndep") rates within the special protection area ("SPA") declared under the habitats directive alongside the A3. The RHS Alternative Scheme will reduce these adverse impacts. It will have the added benefit of reducing the exposure of residents in Ripley to increased concentrations of air pollutants, as well as off-setting some of the increased emissions of the greenhouse gas (CO₂) associated with the DCO Scheme.
- 1.3 In preparing my comments I have identified a number of weaknesses in the assessment provided by HE, giving rise to the following recommendations. HE should be required to:
- a) include NO_x concentrations, assessed against the critical level, as part of the Statement to Inform Appropriate Assessment ("SIAA"), as without this information relevant authority will be unable to complete the Appropriate Assessment;
 - b) apply the LLTE6 method, or something similar, to derive future projections of NO_x concentrations for use in the SIAA;
 - c) include an assessment of ammonia concentrations from road traffic and also to include the contribution of road traffic ammonia emissions in the calculations of Ndep rates;
 - d) carry out the calculations of Ndep rates using the deposition rates from AQTAG for short vegetation and forest as appropriate;
 - e) carry out a proper in-combination assessment of the NO_x and ammonia concentrations and Ndep rates;
 - f) fully assess the impacts on air quality in Ripley of RHS traffic using the route through Ripley rather than the signed route via the A3 and junction 10;
 - g) include receptors in Ripley where the impacts will be worst case;
 - h) verify the model using the local monitoring in Ripley;
 - i) apply the IAQM descriptors to its modelled concentrations for human health impacts, to provide a more complete assessment using the most up-to-date guidance.
- 1.4 In my view, without taking account of the recommendations I set out above, the Examining Authority does not have a suitable air quality assessment and SIAA with which to determine the DCO, and the relevant authority will not have the necessary information to complete the Appropriate Assessment.