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c/o Gloucestershire Wildlife Trust Robinswood Hill Country Park Reservoir Road Gloucester GL4 6SX

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31/01/2022

Dear Sirs.

Please find attached a full written copy of the oral representation made by Gloucestershire Wildlife Trust at Open Floor Hearing one (OFH1) January 24 h 2022. This includes details for published studies referred to as part of the evidence presented at the hearing. As requested by the Examining Authority at Issue Specific Hearing 1 (ISH1) on January 27th 2022, this response also outlines GWT's position on the woodland at Emma's Grove and the proposed mitigation measures affecting it. Finally, it provides a written copy of the oral representations made at ISH1 regarding the Ullenwood Ancient Woodland Local Wildlife Site.

Yours faithfully

Dr Gareth Parry

Director for Nature's Recovery

Gloucestershire Wildlife Trust

## Gloucestershire Wildlife Trust oral representation at the A417 Open Floor Hearing one

- 1.1 Gloucestershire Wildlife Trust (GWT) acknowledges the need for the road scheme and does not object to it in principle. However, this location contains biodiversity features of national and international importance and is an integral part of Gloucestershire's Nature Recovery Network. Since 2016, the Trust has consistently stated that the scheme should respect this and go beyond the minimum standards required of a normal road scheme. The Trust believes that a scheme which only meets the minimum policy and legislative requirements for biodiversity would not be acceptable in this location.
- 1.2 The Trust welcomed the shared landscape vision and design principles, agreed by National Highways and the environmental stakeholders, which committed to delivering the necessary road improvements whilst 'bringing about wildlife benefits' and 'delivering substantially more benefits than negative impacts (**DOC**: 6.2 *Environmental Statement* Chapter 2, section 2.3, p 2-3).
- 1.3 In its written DCO representation, GWT questions whether the current scheme design fully meets the requirements of the National Policy Statement for National Networks and National Highway's own Biodiversity Plan (DOC: GWT TR010056 Written Representation, paragraph 1.1, page 3). Critically, the Trust feels that the current scheme does not meet the shared landscape vision and design principles, specifically in relation to biodiversity.

Detailed evidence to support this position is contained within GWT's written representation and will not be repeated now (**DOC**: *GWT TR010056 – Written Representation*, pages 6-14).

- 1.4 Further evidence will be provided today following submissions made by the applicant at deadlines 1 and 2, specifically on two topics.
  - Biodiversity Net Gain (BNG)
  - The Environmental Management Plan

#### 2. Biodiversity Net Gain

## 2.1. Issues raised

- 2.1.1. GWT accepts that BNG is not mandatory for the A417 scheme. However, the Defra Metric is an important proxy measure for evaluating the scheme's impacts on biodiversity, which can be used to assess compliance with existing policy and the scheme's vision and principles.
- 2.1.2. The applicant currently predicts a biodiversity net loss of 29.66%. This has been justified by the increase in area of calcareous grassland and lowland mixed deciduous woodland, following guidance from the environmental stakeholders and Nature Recovery Network (**DOC**: 8.4 Responses to the Examining Authority's Written Questions (ExQ1), paragraph 1.3.3, page 25).
- 2.1.3. GWT supports the compensatory habitat approach, but it is too simplistic to interpret

this as the scheme delivering net biodiversity benefits. Focusing solely on the quantum of habitat underplays the true scale of biodiversity impact and does not follow guidance on how the Defra metric should be applied. Natural England's Biodiversity metric 2.0 User Guide (Pages 12-13) states that net loss or gain must be determined using biodiversity units. Area is just one component used to calculate these units, which also consider distinctiveness, condition, strategic significance, and connectivity. The metric quite rightly considers the quality of the habitat lost and the risk, difficulty and time associated with compensatory habitat.

- 2.1.4. The scheme is due to destroy 23.93 ha of existing potentially national priority habitat (**DOC**: *Environmental Statement*: Chapter 8, Table 8-18, page 98). Peer-reviewed research, indicates that replacing this with habitat of equivalent quality is not guaranteed <sup>1</sup> and will take decades or possibly more than a century <sup>2–4</sup>. This is the primary reason the Defra metric scores poorly for the scheme not the compensatory habitat strategy; impacts on quality and connectivity are not adequately addressed by Environmental Statement or Environmental Management Plan. As a result, the scheme currently fails to assess or mitigate the impact on ecological networks of the substantial period between habitat loss and re-establishment.
- 2.1.5. There are known short-comings with the Environmental Impact Assessment approach, which may not prevent biodiversity loss <sup>5</sup>, can misrepresent cumulative impacts <sup>6</sup> and impacts on regional habitat connectivity <sup>7</sup>. Therefore, EcIA outcomes should be considered in combination with other evidence, such as the Defra Metric, rather than used to discount them.

## 2.2. Recommendations for improvement

- 2.2.1. The key issue is not the habitat creation strategy, but the insufficient availability of land with which to offset the full biodiversity impacts of the scheme. GWT reiterates recommendations made in its written representation to address these weaknesses (DOC: GWT TR010056 written representation, section 2.5, page 9) and makes four further recommendations.
  - All blighted land is dedicated to habitat creation or enhancement to reduce the level of Biodiversity Net Loss
  - Amend the design of the air balloon way to provide additional compensatory habitat.
  - Biodiversity projects within proximity to the A417 are prioritised for Designated Funds
  - The decision to prevent Designated Funds being used to purchase land is reviewed.

## 3. Environmental Management Plan

#### 3.1. Issues raised

- 3.1.1. GWT acknowledges that the Environmental Management Plan (EMP) is only an intial draft and supports the recommendations of other environmental stakeholders that it should be developed and agreed collaboratively.
- 3.1.2. GWT is disappointed that several evidence-based issues and recommendations for the EMP, repeatedly raised in its previous responses, are not fully reflected in the draft plan e.g.
  - **DOC:** GWT A417 Missing Link statutory consultation response 2019.11, paragraph 6, page 8.
  - **DOC:** GWT A417 Missing Link statutory consultation response 2020, paragraph 8.10.59, page 18.
  - **DOC:** *GWT TR010056 written representation* paragraph 2.17.2, page 14.
- 3.1.3. It is well established in the scientific literature that ecological monitoring should be question driven and have scope to change management <sup>8–10</sup>. At present, there are no details on how this will happen, including governance systems, remediation works or trigger points.
- 3.1.4. Examples of the issues raised in 3.3.1 include
  - The EMP contains no details of a calcareous grassland management plan, despite this being one of the main biodiversity outputs of the scheme.
  - Monitoring of Barn owl (*Tyto alba*) populations does not appear to have a management question or remediation options (**DOC**: *Environmental Management* Plan, action BD46, Appendix Ii, document page 55
  - Monitoring of NoX desposition impacts on ancient woodland at Ullenwood has no information on remediation measures or trigger points for these **DOC**: Environmental Management Plan, action BD51, Appendix lii, page 56)
- 3.1.5. The Trust is also disappointed that the EMP has not taken on board feedback from GWT and other stakeholders about the limited efficacy of mitigating increased recreational pressure through interpretation and on-site infrastructure alone (DOC: Environmental Management Plan, action BD53, appendix liii, page 57). GWT has considerable practical experience in this area and the approaches proposed will not be sufficient to mitigate the acknowledged permanent adverse effect of increased recreational pressure on the Crickley Hill and Barrow Wake SSSI (DOC: Environmental Statement, paragraph 8.10.231, page, 126). Furthermore, they will likely lead to additional burdens on GWT.
- 3.1.6. Finally, some proposals do not seem to follow a logical mitigation approach. To provide an example, the applicant states that ecological constraints prevent moving

the roundabout south to create a larger buffer to reduce the negative impacts of nitrogen deposition at irreplacable ancient woodland at the Ullenwood Local Wildlife Site, citing woodland at Emma's Grove (**DOC**: 8.4 Responses to the Examining Authority's Written Questions (ExQ1), point 1.3.7, page 37): Emma's Grove is not ancient woodland, so it is of lesser ecological importance than the Ullenwood ancient woodland Local Wildlife Site, which should therefore be the priority ecological receptor.

# 3.2. Recommendations for improvement

- 3.2.1. The detailed mechanisms for triggering, funding, and delivering biodiversity remediation works should secured through the DCO process.
- 3.2.2. GWT also recommends that increasing the buffer to the Ullenwood LWS should be prioritised over protecting ecological features at Emma's Grove.
- 3.2.3. Suitable new accessible greenspace is sought to mitigate increased recreational pressure on the Crickley Hill and Barrow Wake SSSI, and the Cotswold Beechwoods SAC if applicable.

# 4. Written response to Examining Authority questions at Issues Specific Hearing One

- 4.1. GWT agrees that the woodland at Emma's Grove does not qualify as ancient woodland.
- 4.2. GWT would accept a 15m buffer as mitigation to retained woodland at Emma's Grove as outlined in **DOC**: 8.4 Responses to the Examining Authority's Written Questions (ExQ1), point 1.3.11, page 40). However, GWT understands that Historic England has indicated that complete clearance of woodland and scrub from the Scheduled Ancient Monument (SAM) is desirable.
- 4.3. GWT would support more extensive removal of woodland and scrub on the Emma's Grove SAM followed by calcaerous grassland creation, subject to there being no adverse impacts on bat populations or ecological networks. This landscape contains well used east/west bat migration routes, including for Annex II species (DOC: 6.4 Environmental Statement Appendix 8.7 Bat Crossing Point Survey Report, section 4, page xxiv). It may be necessary to retain and enhance a suitable scrub and hedgerow corridor to avoid adverse impacts to bat populations. This would also be beneficial for woodland habitat connectivity.
- 4.4. GWT reserves the right to amend its position on Emma's Grove mitigation if detailed designs do result in adverse impacts on bats and the woodland network connectivity.
- 4.5. GWT disagrees with that the applicant's position that increased NoX level on part of the Ullenwood Ancient Woodland does not represent destruction of irreplacable habitat and that mitigation is sufficient.

- 4.6. The Trust requests that a map is provided showing the extent of the buffer around the Ullenwood Ancient Woodland Local Wildlife Site and where this falls beneath 15m.
- 4.7. The Trust requests a graphical representation of the forecast NoX levels within the affected area of Ullenwood Ancient Woodland Local Wildlife Site over the operational period of the road scheme. This will allow a better assessment of the adverse impact on ancient woodland features and mitigation provided by the transition to electric vehicles.

#### References

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- 2. Redhead, J. W. *et al.* The natural regeneration of calcareous grassland at a landscape scale: 150 years of plant community re-assembly on Salisbury Plain, UK. *Appl. Veg. Sci.* **17**, 408–418 (2014).
- 3. Fuentes-Montemayor, E., Park, K. J., Cordts, K. & Watts, K. The long-term development of temperate woodland creation sites: from tree saplings to mature woodlands. *Forestry* cpab027 (2021).
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- 5. Bond, A., Pope, J., Morrison-Saunders, A. & Retief, F. Taking an environmental ethics perspective to understand what we should expect from EIA in terms of biodiversity protection. *Environ. Impact Assess. Rev.* **86**, 106508 (2021).
- 6. Jaeger, J. A. G. & Torres, A. Fourteen lessons from road ecology for cumulative effect assessments. in *Handbook of Cumulative Impact Assessment* (Edward Elgar Publishing, 2021).
- 7. Harker, K. J., Arnold, L., Sutherland, I. J. & Gergel, S. E. Perspectives from landscape ecology can improve environmental impact assessment. *FACETS* **6**, 358–378 (2021).
- 8. Lindenmayer, D. B. & Likens, G. E. The science and application of ecological monitoring. *Biol. Conserv.* **143**, 1317–1328 (2010).
- 9. Salafsky, N. *et al.* Defining and using evidence in conservation practice. *Conserv. Sci. Pract.* **1**, e27 (2019).
- 10. Grantham, H. S. *et al.* Effective conservation planning requires learning and adaptation. *Front. Ecol. Environ.* **8**, 431–437 (2010).