

Adran yr Economi a'r Seilwaith
Department for Economy and Infrastructure



File Ref WG/REB/OBJ0270.11 – GWT/Liles - Summary

Objection Ref OBJ0270

Llywodraeth Cymru
Welsh Government

SUMMARY Rebuttal Proof of Jonathan Davies to Evidence of Geoff Liles
(Gwent Wildlife Trust)

1. GROUNDS FOR OBJECTION

1.1. Details

- 1.1.1. Mr Geoff Liles has submitted a Statement of Evidence dated February 2017 in relation to the draft statutory Orders associated with the Welsh Government's proposals for the M4 Corridor around Newport. The evidence was submitted on behalf of the Gwent Wildlife Trust, and has been received via the Programme Officer for the Public Local Inquiry.
- 1.1.2. I have prepared a rebuttal to this evidence, which was submitted to the Gwent Wildlife Trust and the Inspectors on 30th March 2017. This is a summary of that rebuttal.

2. REBUTTAL

2.1. Introduction

- 2.1.1. As Ecological Advisor to the Welsh Government on this Scheme, I have reviewed not only the main proof prepared by Dr Jones but also the Environmental Statement, the Statement to Inform Appropriate Assessment, and the Appendices therein, including those relating to otters. I am therefore happy to adopt Dr Keith Jones' evidence and to present it to the Inquiry.
- 2.1.2. I confirm that the statement of truth and professional obligations to the inquiry from my main proof still applies.

2.2. Points Raised

- 2.2.1. A total of 42 points derived from Mr Liles' evidence were rebutted in the full document. Since there were a number of recurring themes, the following does not address every one of these points, but instead represents a summary of the key points made by Mr Liles.
- 2.2.2. Response to **Points 1, 2 and 3** (in which Mr Liles considers that the survey reports fail to provide even the most elementary baseline ecological information on otters, that there are serious short-comings in the desk studies, survey methodology and report contents, and that they reveal a poor level of knowledge about otter ecology, conservation and survey techniques, and that the likely impact of the scheme has been greatly underestimated because of serious failings in the otter surveys):

1. A considerable amount of information has been collated from desk studies and field surveys, and is presented in Appendices 10.8 and 10.25 of the March 2016 ES.
2. Desk study search areas were standard for this type of survey:
 - a. *2014 desk study* (Appendix 10.2, and Figures 4 and 12 of Appendix 10.17 to the ES). Data were collated from the 2007/8 surveys for the New M4 Project and from the South-east Wales Biological Records Centre (SEWBRc). The study area included the proposed new road scheme (as it was at the time) plus a 10km buffer zone for European designated sites and 2km buffer zone for National designated sites and other records.
 - b. *2015 desk study* (Figures 4 and 12 of Appendix 10.17 to the March 2016 ES). Data was collated from SEWBRc and NRW. The study area included the footprint of the proposed Scheme *plus* the existing M4 corridor, together with 2km surrounding buffer zones.
3. The results of the desk studies confirmed the presence of otters in the same (or similar) locations as those highlighted in Mr Liles' evidence. This is discussed and demonstrated in more detail in Appendix 1 to the main rebuttal. Whilst it is certainly true that those records obtained by Mr Liles that were not acquired during our studies would have helped set the context for the assessment, they would not have significantly affected the assessment. Furthermore, the desk study (as is normally the case in EIA) was subsequently superseded by survey work which, by its nature, is more up-to-date. I therefore do not agree that the final impact assessment of the Scheme with regard to otters is flawed as a result of desk study information.
4. Field surveys: A total of 1442 watercourses/waterbodies were surveyed during 2014. It was subsequently agreed with NRW that subsequent work could focus on areas not previously surveyed, and within a reduced survey corridor of 100m either side of the Scheme (due to the more fixed nature of the route alignment at this stage). A further 58 surveys features were therefore surveyed in 2015.
5. Surveyors: I do not agree that surveyors need to be a recognised "*expert*" in otter ecology surveys; they should, however, clearly be sufficiently

experienced to recognise otter field signs. The reports confirm that the survey teams included experienced surveyors.

6. Results: The results of the desk studies and fields surveys (Appendices 10.2 and 10.17 March 2016 ES (desk studies) and Appendices 10.8 and 10.25 (field surveys) confirmed the widespread presence of otters across the Scheme, including a small number of “laying-up” sites.
7. Impacts: Taking into account the potential for baseline conditions to change, and the nomadic nature and large home ranges of otters, the mitigation proposals set out in the ES take the precautionary approach of assuming that otters could utilise *all* watercourses/waterbodies across the Levels, now or in the future. Therefore, I disagree that the conclusion of likely impact has been “*greatly underestimated*”.
8. Whilst I understand Mr Liles’ position on both the desk studies and the surveys, I do not believe that the way the work has been carried out means that the baseline is invalid. Indeed, a very large amount of useful and meaningful information, based on surveys scoped in detail with NRW, has been gathered on which to base the assessment, and this confirmed the widespread presence of otters across the Scheme.

2.2.3. Response to **Point 3** (Considers the assessment to be flawed as it does not take into account all relevant desk study information provided by Mr Liles):

1. The 2015 updated desk study (Figures 4 and 12 of Appendix 10.17 to the March 2016 ES) confirmed otter records for the same (or similar) locations to those highlighted by Mr Liles (Appendix 1 to the full rebuttal). I therefore do not agree that the assessment is flawed due to desk study information.

2.2.4. Response to **Point 4** (Considers that DMRB guidance states that “*surveys should be repeated every 3 months over the course of one year*”.):

1. DMRB guidance referring to 3-monthly survey visits (paragraph 7.12 of DMRB Volume 10 Section 1 Part 9) relates to surveys to establish “*presence or absence of otters*”. Desk studies and the single visit field surveys confirmed presence across the Levels; therefore, further visits were not considered necessary to inform the ES or the development of the mitigation proposals. Further surveys will, however, be carried out in 2017; these will inform licensing, if required, and a more detailed mitigation strategy, and will be carried out four times across the year.

2. NRW agreed that the 2014 survey effort was sufficient (section 8 of Appendix 9.1 of the ES Scoping Report), and also agreed the scope of the 2015 surveys (during a meeting on the 30th January 2015). The 2017 survey scope was agreed with NRW on the 15th January 2017.
- 2.2.5. Response to **Point 5** (Considers that otter and water vole surveys should not be undertaken together):
1. It is accepted practice within EIA for development to combine otter and water vole surveys. It is nevertheless acknowledged that survey methods and field signs are different for both species (see section 2 of Appendix 10.8 of the March 2016 ES, and section 3 of Appendix 10.25).
- 2.2.6. Response to **Point 6** (Considers that Chanin 2003 & Crawford 2003 documents do not provide guidance on otter survey methodology, and that Arup should have used DMRB Volume 10 Section 1 Part 9 (HA 81/99), CCW (2009), Grogan *et al* (2001) and Liles (2003a)):
1. The 2014 survey method was “... ***adapted*** from ...” information provided in Chanin 2003 and Crawford 2003 (para.2.2.1, Appendix 10.8 to the ES).
 2. The survey methodology in 2014 (and 2015) did follow guidance in DMRB Volume 10 Section 1 Part 9 which suggests (in italics):
 - a. *A desk study*. These are set out in detail in Appendices 10.2 and 10.17 to the March 2016 ES.
 - b. “... *identify all areas of known otter habitat within the study range, together with areas into which populations are likely to spread*”. The Scheme takes a precautionary approach, which is consistent with this guidance, i.e. that “...*the absence of ... signs does not necessarily preclude otters from the area*”.
 - c. “*Any watercourse that can be identified, should be surveyed*”. All accessible watercourses/waterbodies were surveyed.
 - d. Field signs to be surveyed for should include “*footprints, paths, slides, spraints, holts and couches/resting sites*”. All of these were searched for in the surveys (Appendices 10.8 and 10.25 of the March 2016 ES).
 3. Section 4.4. of *Otter Breeding Sites: Conservation and Management* (Liles, 2003), also includes the following guidance:

- a. *Locate potential holt/resting sites.* This was informed by both Phase 1 habitat surveys (Appendices 10.2 and 10.19 of the March 2016 ES) and the otter field surveys.
- b. *Identify major food sources.* Reens are known to support a mixed population of fish and eels (Chapter 10 of the ES). The precautionary approach taken considers all watercourses/waterbodies as potential foraging sites, although reens are likely to be more important.

2.2.7. Response to **Point 7** (Considers Arup failed to search for otter travel routes.):

1. The 2014 report acknowledges “*otters will travel overland to reach other water bodies*” and includes terrestrial signs in the survey.

2.2.8. Response to **Point 9** (Considers that the use of ‘Habitat Suitability’ to indicate how likely it is for otters to use a site is ‘fallacious’):

1. Habitat suitability is just one part of the method of assessing the site. It provides additional context to the detailed recording of field signs.

2.2.9. Response to **Point 12** (Queries the survey of, and impact assessment for, the Potential Breeding Site, reference waterbody 1290 in the Arup report):

1. Pond 1290 (which is the Nature Reserve at Tata Steel) was mapped in the 2014 survey report (Appendix 10.8 of the March 2016) but no survey of the pond was undertaken. It will, however, be surveyed in detail throughout 2017.
2. It was presumed that otters could utilise pond 1290. The pond is located approximately 100m from the new road. There would be a Water Treatment Area (WTA) and reed beds (see sheet 9 of the EMP) between the pond and new road, which would reduce any disturbance impact.

2.2.10. Response to **Point 13** (Considers that, because otter populations appear to be at a low density, the new road is likely to pose a significant risk to otters):

1. I disagree that the new road will pose a significant risk to otters, owing to the precautionary approach to mitigation which will apply to the full length of the Scheme where it crosses the Levels (section 9 of Chapter 10 to the March 2016 ES). Measures would include:
 - a. potential holt/resting sites to be re-surveyed in 2017 and pre-construction, and inspected immediately prior to clearance;

- b. otter exclusion fencing to significantly reduce the risk of road kill will be installed across the Levels (see the revised Environmental Masterplan (Figure R2.6 of the September 2016 ES Supplement);
 - c. culverts and dry mammal crossings to facilitate safe crossing and reduce the impact on movement/dispersal (shown on the EMP);
 - d. measures to prevent light spill (Pre-CEMP and to be detailed in the CEMP and lighting strategy); and
 - e. measures to prevent pollution (as set out in the CEMP and the Drainage Strategy (Appendix S2.2 of the December 2016 ES Supplement), as well as otter fencing around primary siltation ponds in the WTAs).
2. Habitat creation at the SSSI Mitigation Areas and WTAs will also provide additional resources of value to otter.

2.2.11. Response to **Point 19** (States there is no reference to the landfill holt/resting sites in the RPS report.):

1. No holts or resting sites have been recorded at the landfill in 2016 or 2017. The level of disturbance currently affecting the site will have affected the suitability of the area; nevertheless, surveys are ongoing.

2.2.12. Response to **Point 22** (Considers that the three-stage EIA process set out in Grogan *et al* (2001), should be followed):

1. The EIA was undertaken in accordance with the three stage process set out in the DMRB EIA methodology (DMRB Volume 11, Section 3, Part 4 (Highways Agency, 1993)), as follows:
 - a. **Stage 1** requires '*sufficient assessment to identify the nature conservation constraints associated with particular broadly-defined route corridors*'. Within the WeITAG Appraisal Report Stage 1 and 2 (document 4.4.12), Appraisal Summary Tables (ASTs) are presented for each option. Whilst otters are not considered specifically, the potential implications on the River Usk SAC, the reen system, and 'migration routes and key breeding areas for many species' are considered. I consider this to be proportionate at this early stage.
 - b. **Stage 2** requires '*...sufficient assessment to identify the nature conservation factors, and the significance of effects upon them, to be*

taken into account'. Detailed surveys are therefore not necessarily required. The likely effects of alternative routes were assessed in the DMRB Stage 2 Environmental Assessment Volume I Report (Arup 2014; document 4.5.19), including likely impacts on otters.

- c. **Stage 3** requires a detailed assessment of the issues, and otters were considered through the scheme design process, with desk study and survey information informing the mitigation.

2.2.13. Response to **Point 24** (Considers that WG has wrongly assumed that otters always travel along watercourses and that the provision of culverts at watercourse crossings will reduce the occurrence of fatalities):

1. It is not assumed that otters only travel along watercourses, nor is it considered that culverts alone will prevent fatalities, hence the commitment to otter fencing (Chapter 10 of the 2016 March ES).

2.2.14. Response to **Point 25** (Considers that the disturbance effects of operation have been ignored and further consideration of pollution is required):

1. In Section 10.9 of Chapter 10 of the March 2016 ES the following operational impacts are considered: severance/fragmentation of habitat; highway drainage; pollution events; salt accumulation; lighting; and landscaping and management. Disturbance from noise or vibration is considered with regard to the landfill at paragraph 10.9.128. The likely effect of the operational Scheme is assessed as Slight or Moderate adverse.
2. Pollution issues are discussed in the evidence provided by Richard Graham, and are summarised in Chapter 10 of the March 2016 ES. Mitigation would ensure no significant impact. Otter fencing would be installed around primary siltation ponds in WTAs to further reduce risk to otters.

2.2.15. Response to **Point 26** (Considers there is no evidence to support the claim that the River Usk population is unlikely to use all the area of the Levels that would be affected by the Scheme, and notes that it would have been possible to request genotyping studies to assess relatedness between individuals in these two areas – this could have implications for the SIAA):

1. The precautionary approach of the SIAA is that otters utilise the Levels and could interact with otters from the Levels. It is, however, considered unlikely that the otters will utilise "... ***all the area*** of the Levels".
2. The large majority of the otters in the River Usk SAC are distributed to the north of the M4CaN site - otters inhabit most stretches of the river upstream of Newport and, since 2000, have been recorded along tributaries further upstream (Strachan, 2015).
3. The Core Management Plan for the River Usk SAC (CCW, 2008) states "*Restrictions on the movement of otters around the SAC, and between adjoining sites are currently a particular concern in the reach through Newport as a result of a continued decrease in undisturbed suitable riparian habitat*". The likelihood of a substantive connection between the bulk of the SAC otter population to the north of Newport and the Levels is therefore low. Notwithstanding this, the Scheme would not prevent movement along the river or onto the Levels from north or south of Newport.
4. I believe that the above demonstrates, beyond reasonable scientific doubt, that any link between the otters of the River Usk and those of the Levels is insignificant in terms of the SAC population, such that any potential impact from the Scheme would not affect integrity.
5. I do not believe that genotyping would be necessary or proportionate given this conclusion.

2.2.16. Response to **Point 27** (Considers that two Favourable Conservation Status components are relevant here ("*No otter breeding site should be subject to a level of disturbance that could have an adverse effect on breeding success*" and "*The safe movement and dispersal of individuals around the SAC is facilitated by the provision, where necessary, of suitable riparian habitat and underpasses, ledges, fencing etc. at road bridges and other artificial barriers*"), that it is not possible to ensure these two components can be achieved, and again that this could have implications for the SIAA):

1. **Breeding sites**: No breeding sites have been recorded to date. The 2017-18 surveys would inform the final SIAA. Should a breeding site be recorded, alternative provision would be created under an NRW EPS licence. I do not believe that displacement of one breeding otter (should it

occur) in a territory of several kilometres of river would represent a significant risk to the integrity of the SAC population.

2. “... suitable riparian habitat and underpasses, ledges, fencing etc. at road bridges and other artificial barriers”: All these features form part of the Scheme’s mitigation strategy (Chapter 10 of the March 2016 ES; Reen Mitigation Strategy (Appendix 2.3 of the March 2016 ES); and EMP).
3. Survey results from 2017 and pre-construction will inform the otter method statement to be agreed with NRW in advance of the Scheme.

2.2.17. Response to **Point 28** (Considers that the created reed beds in WTAs will inevitably present a safety and health hazard to otters):

1. Otter fencing will exclude access to primary siltation ponds. Other habitats will be unfenced, as these will form the final ‘polishing’ stage and will have low concentrations of pollutants. Given that unfenced areas would be unlikely to represent a significant proportion of an otter’s foraging habitat, the risk of bioaccumulation would be negligible.

2.2.18. Response to **Point 29** (Considers that otter underpasses can be effective only if they are installed at existing travel routes.):

1. Existing and potential future travel routes would be considered by culverting all reens and constructing adjacent dry mammal crossings. Otter exclusion fencing would help to guide otters to these. This approach means that any future changes in use of the landscape by otters (e.g. during dispersal, population expansion, etc.) can be accommodated.
2. With regard to existing travel routes, Mill Road Reen underpass (Figure 2e on my Proof of Evidence) would be retained.

2.2.19. Response to **Point 37** (Considers that insufficient information was produced to determine whether the scheme ‘*will not be detrimental to the maintenance of ... favourable conservation status in its natural range*’):

1. I do not agree, especially as a comprehensive set of precautionary mitigation proposals is set out in the ES.
2. Favourable Conservation Status is considered to occur when:

- a. *population dynamics ... indicate that [the population] is maintaining itself on a long-term basis as a viable component of its natural habitats, and*
- b. *the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and*
- c. *there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis."*

These three elements are addressed in turn, below.

3. Population dynamics:
 - a. The UK-wide otter population was estimated in 2006 to be at least 10395, with favourable future prospects (JNCC 2006). The population of the River Usk SAC was estimated in 2003 to be between 11 and 50 otters, or 0.005% of the UK population (JNCC 2003).
 - b. Desk studies and surveys confirm the continued presence of otter.
4. Natural range: Considering the extent of mitigation and the construction of bridges outside the wetted channel of the River Usk, I consider that the natural range of the SAC population would not be significantly affected.
5. Habitat availability: Taking into account the retention of watercourses, creation of new habitat (EMP - Figure 2.6 of the March 2016 ES and Figure R2.6 of the September 2016 ES Supplement; SSSI Mitigation Areas - Appendix 10.35 to the March 2016 ES, later revised as Appendix SR10.35 to the December 2016 ES Supplement), and the fact that the majority of the SAC population is located to the north of the Scheme, I consider the Scheme would not have a significant adverse impact on habitat availability, now or in the long-term.
6. Therefore, I believe the Scheme would not adversely affect the favourable conservation status of otters in the Gwent Levels or River Usk.

2.2.20. Response to **Point 39** (Considers that preconstruction surveys must not (and cannot) be used to carry out a check for sites that have been missed during the initial main surveys):

1. Pre-construction surveys are to identify changes to baseline conditions and update the mitigation strategy/method statement.

References

Countryside Council for Wales (2008). *Core Management Plan (including conservation objectives) for the River Usk Special Area of Conservation*. CCW. (Available at: http://www.wyeuskfoundation.org/problems/River_Usk%20SAC%20Core%20Management%20Plan.pdf)

Joint Nature Conservation Committee (2006) *Second Report by the UK under Article 17 on the implementation of the Habitats Directive from January 2001 to December 2006*. (Available at: <http://jncc.defra.gov.uk/pdf/Article17/FCS2007-S1355-Final.pdf>)

Joint Nature Conservation Committee (2000) *Natura 2000 Standard Data Form for the River Usk SAC* (Available at: <http://jncc.defra.gov.uk/protectedsites/sacselection/n2kforms/UK0013007.pdf>)