A57 LINK ROADS TR010034

RESPONSE TO PD-014 - REPORT ON IMPLICATIONS FOR EUROPEAN SITES

CPRE Peak District and South Yorkshire
Unique Reference: 20029243

DEADLINE 9 – 27 April 2022

We welcome the opportunity to comment on the ExA's report on the Implications for the European Sites (RIES). The Applicant provided a HRA report entitled Habitats Regulation Assessment (HRA) Screening Report (TR010034/APP/5.3) [APP-054] with the DCO application; and an assessment of likely significant effects arising from changes to air quality at designated habitats in Environmental Statement (ES) Appendix 8.4 [APP-172]. We do not agree with the Screening Report outcome to exclude screening out of the European sites adjacent to the A628T; and we are not satisfied that the worst case scenario has been presented from the assessment of the European sites adjacent to the Snake Pass. This is because we are not satisfied that the traffic modelling presents the worst case scenario but actually substantially underestimates it. Traffic flows on both the trans-Pennine routes are likely to be higher than those forecast by NH. We did not raise wildfires on the moors as a result of the scheme as an issue and agree it would be most unlikely to lead to an increase in wildfires.

In our response to Q3.7 Confidence limits for traffic flows on links within the National Park (A628), we supported the PDNPA's dissatisfaction with the Applicant's explanation regarding confidence in traffic increase figures / screening out of effects on the A628T [REP7-036]. Although there has been some clarification from NH about the traffic model we remain deeply sceptical about it. We and others have repeatedly tried to assure ourselves about the traffic modelling but NH without supplying any further evidence dismisses our attempts. We first address the latest dismissal of those attempts and then outline all the outstanding uncertainties which remain and lead us to believe the traffic modelling is not showing us the worst case scenario.

Baseline traffic data against which the model was calibrated and validated is only available from NH

In its response to REP5-040 in REP7-025 reference 9.69.114, NH describes how the traffic model is calibrated against recorded traffic flows so that the modelled traffic flows match observed traffic flows within predefined acceptable margins of error. This is done to ensure that the baseline traffic model provides an accurate representation of the current traffic flows and the operation of the road network, and can be used as the foundation for developing the forecast year traffic models.

NH collected baseline traffic counts in 2015/2016 (TAR 3.2.3). The 2015 baseline flows that NH supplies are extremely limited. We are given the results from only four locations along the SRN - the M67 just west of Jn 4, Hyde Road, Mottram Moor and Market Street in

Hollingworth; and only three on the LRN – A57 Brookfield, Woolley Lane and Woolley Bridge Road. No 2015 baseline traffic flows are provided through Tintwistle village or along the A628T, on the majority of roads in Glossopdale or on the Snake Pass. NH does not provide AADT in 2019, the most recent year before the Covid pandemic changed travel patterns, which would supply a more up to date record.

NH then explains '*The baseline traffic model is calibrated against a combination of traffic flow data recorded by specifically commissioned traffic surveys and by fixed automatic traffic counters (induction loops) located across the Strategic Road Network (SRN). Traffic flows recorded by the automatic traffic counters on the SRN (Webtris data) are collected by National Highways on an ongoing basis and, therefore, provide traffic flow data over an extended period of time. These are separate to the traffic counts undertaken by the Department of Transport (DfT) that use a mixture of automatic traffic counters and manual traffic counters and are only undertaken once a year, at most, over short periods of time (typically 7am to 7pm over at most a few days) and factored up to provide an estimated annual average daily flow (AADT). The Webtris data collected by National Highways, therefore, provides a much more accurate and reliable record of current traffic flows than the DfT spot counts*.'

First, Webtris. We have been unable to access 2015-2019 traffic flows on Webtris. It is therefore extremely difficult to check NH baseline data from this source. As '*traffic flows on the SRN (Webtris data) are collected by National Highways on an ongoing basis and, therefore, provide traffic flow data over an extended period of time'* NH should be able to supply baseline 2015 -2019 figures along the SRN between Hollingworth and the Flouch. The diagram below from REP2-090 shows several traffic counter locations along the A628, one between Hollingworth and Tintwistle, and one either side of Salter's Brook; according to WebTRIS there is also one at the Flouch[1]. NH must have baseline traffic flows for these and subsequent flows from years up to 2019 and they should be presented to the Examination. The fact the baseline data along the SRN in 2015 is being withheld should be of great concern to the ExA as it was used to calibrate the traffic model, the outputs from which have led not only to exclusion of a proper assessment of the European sites but also of AQMAs.

Second, the DfT counts. NH dismisses both DfT's automatic counts and manual counts. Here's what DfT says on its Road Traffic Statistics website about its counts (our emphasis added).

*'Annual traffic statistics are compiled using data from around 8,000 roadside 12-hour manual counts, **continuous data** from automatic traffic counters, and data on road lengths.*

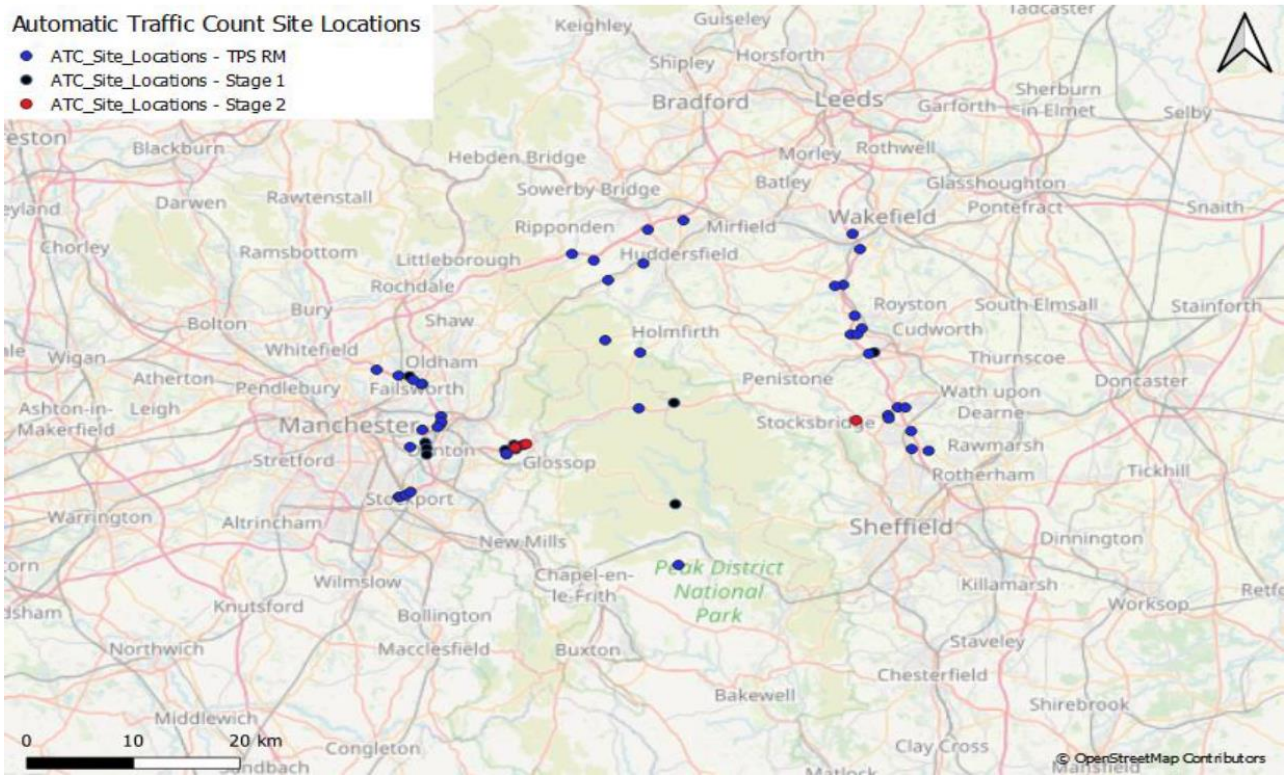
Automatic traffic counts

The Department for Transport's road traffic statistics team have approximately automatic traffic counters at locations on Great Britain's road network. The locations are a stratified

[1] Highways England's WebTRIS website; REP2-090 pdf p506/790 Figure 6-1 showing the survey location for ATCs used to inform the traffic model

panel sample, and provide sufficient observations so that in-year traffic variations can be estimated by road type and vehicle type.

Figure 6-1 - Survey Locations for ATCs Collected Prior to Stage 3



The automatic traffic counters are permanent installations embedded in the road surface, *which combine Inductive Loops with Piezoelectric Sensors in a 'Loop – Piezo Sensors – Loop' array, and record information about vehicles passing over them, including vehicle length and wheelbase, to classify vehicles*

The Department for Transport's road traffic statistics also make use of automatic traffic counter data that is collected and maintained by other organisations. These are:

Highways England: operate over 10,000 automatic traffic counters on some of the motorways and 'A' roads in England'.

Thus, according to DfT its automatic counters are permanent installations, supplying continuous data that discerns vehicle type; DfT may also use the 10,000 automatic counters that NH operate. We accept that manual counts and estimates may not be as reliable as automatic traffic counters but what NH has written about the DfT's counts based on automatic traffic counters is an attempt to mislead the Examination and dispense with criticism of the traffic modelling.

With respect to the local road network, Webtris only supplies traffic flow data for the SRN. However NH has told us that that the model is calibrated against *specifically commissioned traffic surveys* as well as automatic traffic counts. For which local roads were baseline

surveys undertaken to calibrate the model and what are the results? Again we believe that the ExA should be greatly concerned that such basic data has not been presented to the Examination.

In summary, NH has refused to reveal sufficient baseline traffic data and is arguing that its data alone is reliable, that from DfT is not. Once scrutinised this argument is shown to be fallacious and reaffirms our lack of confidence in the calibration and validation of the traffic modelling.

Flaws in collection of baseline data

In addition to the extremely limited baseline data there are flaws in it [REP2-090]:

(a) Data collected in 2015/16 was incomplete [REP2-090 para 5.2.8 pdf page 496/590]
(b) Data collected in 2017/18 was a snapshot of traffic conditions – [REP2-090 para 5.3.1. pdf page 504/790] '*The ATC and CTC surveys conducted in 2017 and 2018 only present a snapshot of traffic conditions over a short period. This was one day (12 hours) for the classified turning counts, and a two-week period for the automatic traffic counts. It was important therefore that the results produced could be shown as being typical of normal network operating conditions, and broadly unaffected by incidents which would render the results atypical.'*
(c) *'Surveys were conducted at the beginning of December 2017, which is not a TAG neutral period'* [REP2-090 para 5.4.1 pdf page 504/790]. Nevertheless NH '*determined that the traffic data received was not materially different from traffic flows during a more typical month, and therefore approved by Highways England for use in the study.'*

In summary, NH in collecting baseline traffic data undertook '*a snapshot of traffic conditions,'* the very methodology for which they dismiss the validity of DfT's counts, and used surveys from the beginning of December which is not a neutral period; also some baseline data was incomplete.

Validation of the traffic model against baseline flows

TAG Unit M3.1 Table 2 lists the validation criteria for links and turning movements, advising that 85% of all links whichever traffic flow band they fall within[2] should meet the criteria. For this scheme 87% of links met the criteria in the AM peak (Table 9-24), 91% of links met the criteria in the IP (Table 9-25), and 83% of links met the criteria in the PM peak (Table 9-26)[3]. The PM peak was below the 85% guideline. Given the flaws in the baseline data we remain concerned about the validation of the scheme.

We can only assess this validation in an extremely crude way as we do not have hourly vehicle counts and have access to only three counts that would be considered reliable. Along the SRN A628T corridor at one location - at M67 west of Jn 4 - automatic traffic

[2] Individual flows within 100 veh/h of counts for flows less than 700 veh/h
Individual flows within 15% of counts for flows from 700 to 2,700 veh/h
Individual flows within 400 veh/h of counts for flows more than 2,700 veh/h
[3] REP2-090 pdf page 549-550/790

counts from DfT are available for 2017, 2018 and 2019 and are similar at 33,988 AADT, 33,175 AADT and 35,318 AADT, respectively[4]. From the above we know these are either from one of DfT's permanently installed automatic traffic counters or, more likely given how few counters DfT has, one of NH's. One can be confident in their observations. NH's 2015 baseline flows and modelled flows in 2025 DM are almost identical at 28,450 AADT. But DfT's automatic traffic counts are 5,710 AADT or 20% higher when measured over three consecutive years.

With respect to the local road network DfT counts are either estimates or manual counts, and are less reliable. In that instance DfT advises that '*Where other more up-to-date sources of traffic data are available (e.g. from local highways authorities), this may provide a more accurate estimate of traffic at these locations.*' On the Snake Pass DCC has a traffic counter on the A57 as it descends west to Glossop. From the DCC press release re-opening the Snake Pass [REP8-034 reference 9.69.16] we are told the current average weekly flows are 30,000 vehicles including 1,500 HGVs, or 4,200 AADT. So in March 2022 the weekly average flows were 38% higher than NH's 2025 DM modelled flows of 3,050 AADT. This implies that the modelled flows are an underestimate and that the impacts of the traffic generated by the scheme on the Snake Pass as it passes through the European sites have been underestimated (it would also have implications for the risk of road crashes and the impact on tranquillity). Diagram 6-1 above also shows an automatic traffic counter on the Snake Pass near Ladybower reservoir, so there are potentially two sources of baseline traffic counts on this road.

The only other local road on which all counts are manual counts are those reported on Norfolk Street which have been consistently between 2,000 AADT and 2,400 AADT over 5 years, 2015-2019[5]. NH's modelled count in 2025 DM is 8,200 AADT or 272% higher than observed counts over 5 years, which is an extraordinary difference.

In summary, we have traffic flows from only three links with which to crudely assess baseline observed traffic flows against 2025 DM AADT. All three of them are well outside the criteria which must be met by 85% of the links measured to validate the model. We appreciate that being hidebound to criteria does not prove a model is fit or not fit for purpose but in this instance, and given the public interest in the model, the scale and nature of potential forecasting uncertainty and suitability of the model for its intended purpose should be thoroughly scrutinised.

Baseline flows for screening of the European sites for assessment

In addition to what we have said above there are four other issues bearing on the traffic modelling through these sites; (i) the limited number of baseline counts undertaken for air quality assessment; (ii) model refinement specifically to avoid air pollution; (iii)

[4] DfT count point 37888 on M67, DfT Road Traffic Statistics website
[5] DfT count point 940135 on Norfolk Street at its junction with Talbot Street, DfT Road Traffic Statistics website; results can be found in REP8-034 Table on page 17

inconsistency in traffic flows along the A628T; and (iv) a lack of clarity over the Uncertainty Log.

(i) Limited baseline counts for air quality assessment

REP2-090 para 5.2.9 pdf page 496/790 states that '*For air quality environmental assessment purposes, classified directional ATCs were undertaken along the A57 between the Woolley Bridge junction and Shaw Lane for two weeks during July 2018 (shown on Fig5-2). 24-hour directional Manual Classified Counts (MCC) were undertaken over a two-day period whilst the ATCs were in operation'.*

Thus despite two trans-Pennine routes passing through European sites sensitive to air quality, only one location was chosen for automatic traffic counts and a traffic survey, and it was distant from both the A628T and the A57 as they passed through the European sites. WebTRIS data sites for the Environmental Assessment listed in REP2-090 (Table 6-2 pdf page 512/790) show that no traffic data along the A628T was used, despite there being four within the area of the European sites. Fig 6-1 above [REP2-090 pdf page 506/790] shows two automatic traffic counters either side of Salter's Brook on the A628T, where the A628T is immediately adjacent to the European designated sites. The automatic traffic counter shown on the same figure on the A57 Snake Pass near Ladybower is removed from the designated site but as the road descends to Glossop the European site is immediately adjacent to the road and DCC's counter becomes relevant. NH must have traffic counts from these locations available to compare with the modelled flows. Why have they not presented them? They should be presented now.

(ii) Model refinement

Initial air quality assessment in 2018 revealed '*that an unmitigated TPU scheme could have significant AQ effects and jeopardise the application for development consent. Changes in traffic flow and speed as a result of the scheme were predicted to cause exceedances of the AQ strategy objectives for annual mean nitrogen dioxide (NO2)'* both in Glossop and Tintwistle [REP2-090, para 7.3, pdf pp519-521/790]. The model was therefore refined. This led to a reduction in traffic flows along both the A57 and the A628T such that they did not meet the criteria for analysis of air quality in the AQMAs. The model refinement therefore could have impacted on the traffic flows passing through the European sites.

(iii) The lost 6,000 AADT

The traffic flows on Market Street through Hollingworth are given as 15,900 AADT in DM 2025[6]. The traffic flows through Tintwistle are given as 9,699 AADT DM[7]. NH makes it clear the latter are flows through the Tintwistle AQMA which is on the eastern edge of the village and well to the east of New Road. NH explains the enormous difference in flows - 6,000 AADT - between the two villages in this way:

[6] ES Appendix 2.1 Traffic data
[7] REP2-022 page 90

The traffic flows on the A57 Glossop High Street East and A628 Market Street are higher than the traffic flows on the sections of these roads through the Peak District National Park (PDNP) because of the additional traffic demand generated within the urban areas of Glossop, Hollingworth, Tintwistle and Hadfield. This additional traffic demand is predominantly for journeys to and from destinations to the west, rather than across the PDNP and, therefore, results in significantly high flows on these sections of road compared to the sections of road through the PDNP.

So the drop in flows of 6,000 AADT between Hollingworth and Tintwistle has to be explained by traffic leaving the A628T and filtering into the Tintwistle side streets and/or using New Road as the rat run for Hadfield/Padfield villages to get to the A628T Market Street (there is no other route through Tintwistle to serve as a suitable rat run).

The population of Tintwistle is only 1,400 and therefore most unlikely to account for 6,000 daily vehicle movements; some must be accounted for rat running to/from Hadfield/ Padfield. If this is the case we would expect flows on New Road to reflect this. On New Road NH has modelled 800 AADT in 2025 DM and 1,200 AADT in 2025 DS ie a change of 400 AADT; so despite what NH say about Hadfield/Padfield/Glossop residents rat running to the A628T to head west they are not using New Road in significant numbers, either with or without the scheme. Mr Bagshaw's evidence also supports this deduction [REP4-027].

If, in its explanation above, NH is referring to the current situation and everyone in Tintwistle who is able to drive (say 1,000 people) was contributing to the 6,000 lost flows then every single person is making six trips a day (nationally the average is 1.6 trips per day[8]); if NH is referring to the situation with the scheme in place then the scheme creates demand for 6,000 more trips from Tintwistle. Neither result is credible.

It appears likely that the 6,000 vehicle movements are still on the A628T, about half may disappear into Tintwistle but where do the rest go? Tintwistle was one of the air pollution sites which would have jeopardised the DCO and for which the model was refined. In REP2-069 4.2.7-4.2.10 we drew attention to the inconsistencies between the trend in DfT counts and 2025 DM modelled flows on the A628T east of Tintwistle. Clearly there is uncertainty about modelled traffic flows on the A628T, which means the screening out of the European sites alongside the A628 (and the Tintwistle AQMA) is highly questionable.

(iv) Uncertainty Log

Unanswered questions remain around the Uncertainty Log. In REP2-069 paras 4.2.11-17, we noted that the UL in ES Ch.15 Appendix 15.1 appeared incomplete when compared to that in the Transport Forecasting Report[9]; and that outside Tameside and High Peak Boroughs it was unclear what developments had been included in the modelling and what trips had been assigned to them. This has not been clarified. When we requested sight of the full UL, NH in REP7-025 9.69.18 referred us to Appendices B and C in the Transport Forecasting Report and supplied Appendix A. Appendix A is identical to Appendix B in the Transport

[8] National Travel Survey 2019
[9] REP2-090 para 3.6.5-7, pdf page 279/790; Appendix B and C, pp337-408/790

Forecasting Report and does not supply any new evidence to answer our question about the number of trips from both housing and commercial developments that are included in the traffic modelling for the cumulative assessment. There are a considerable number of commercial developments for which only the area is supplied and not the type and therefore it is impossible to even guess at the number of potential trips that may or may not have been included in the model. In addition the housing developments that were below the criteria for inclusion in the model from Sheffield and Barnsley alone would lead to a substantial number of trips that would be excluded from the model [REP2-069, 4.9 Cumulative Effects page 101].

Conclusion

Above we have shown the flaws in the collection of the baseline data and the poverty of information presented to the Examination, which in itself should be of great concern. Our attempts (limited by the poverty of information) to satisfy ourselves that the traffic modelling can be relied on shows it cannot. The serious inconsistencies in traffic flows along the trunk route at the M67 J4 and on the A628T, and on the Snake Pass should raise alarm bells. There are other inconsistencies we and others (including HPBC) have queried along the A57 through Glossop to add to the list above.

The ExA noted in ISH2, Session 2, at 14.50 '*we don't expect that the modelling will be 100% accurate, because that's not practical and achievable. But we are very interested in the headline issues that may or may not cause us to doubt whether the traffic modelling represents a reasonable worst case.'* Surely the time has come to seriously doubt and challenge the traffic modelling. NH's oft repeated assurance that it has absolute confidence in the traffic modelling remains hollow – where is the evidence? There can be no confidence in NH's assessment of the scheme's impacts on the European sites - or the results of the entire Environmental Statement - until an independent assessor authenticates the traffic modelling. This should include a roundtable with those who actually do the modelling and appraisal. The ExA can facilitate this either by using a Rule 17 letter or suspension of the examination under EIA Regulation 20.