

Dear Messrs Cowperthwaite and Dyer,

We, the undersigned, are a group of leading objectors at this Examination. You have led the examination process with a genuinely inquisitorial approach, however as things stand, we are concerned that any report to the Secretary of State will lack the necessary evidential base. Information which is clearly important and relevant, and which is needed to inform your recommendations to the Secretary of State on the balance between the adverse impacts and the benefits of this scheme, has not been made available to this Examination by the Applicant. It has therefore not been scrutinised and challenged to ensure that it is robust. **We are, therefore, writing to ask you to take action to ensure the integrity and soundness of this Examination.**

We contend the evidence base as it stands fails to meet legal, guidance and policy requirements according to the Planning Act 2008, the 2017 EIA Regs and Guidance, National Highways Licence agreement, Transport Decarbonisation Plan, Bus Back Better, Gear Change, Greater Manchester Right Mix policy, WebTAG Appraisal, IEMA guidance and NPSNN. And as the Applicant has failed to meet the obligations placed on it as a public body by the Gunning and Nolan principles, and the Aarhus Convention, the process using the evidence has not been open and fair to the public.

There are three matters of concern: the traffic model, the omission of a WebTAG compliant Transport Appraisal, and the carbon assessment. We look at these in turn.

1. THE TRAFFIC MODEL

The outputs of the traffic model, i.e. the predicted traffic flows and their distribution, nature and composition, are fundamental to all the evidence about the scheme's effects on the transport networks, on road safety and on the environment and society. The model therefore occupies a central position at this Examination, and it follows that you as Examiners must have total confidence in these outputs. The enormity of the problems with the model spelt out below must challenge that confidence.

Neither the scenario with the scheme in place ('do-something') nor the 'do minimum' without it are in line with local and national policy. Neither of these scenarios can meet the requirement for transport decarbonisation as set by Greater Manchester Right Mix policy, Bus Back Better, Gear Change, the Net Zero Strategy and the Transport Decarbonisation Plan (TDP): essentially emissions go on increasing with both scenarios, and there is no clear delivery mechanism for decarbonisation in either. Only a sustainable package implemented without the current scheme in place ('do-something-else'), that is **designed to secure the**

required policy objectives, would have the potential to provide the required policy delivery mechanisms and meet that requirement.

Without such a realistic 'do-something-else' the Examination will fail to meet the challenge of assessing the scheme in this time of rapid policy change. We are confident that the suggestion which we make in this letter for an independent review process of the model falls within your ExA discretionary powers.

Problems with the model

These include:

1. Assumptions and factors which are built into the model and the values ascribed to these factors are not available to stakeholders or to the ExA. For example '*The underlying assumptions that have been made in the traffic modelling to create the diversion of traffic onto Shaw Lane/Dinting Road are not clear*' [HPBC Local Impact Report REP2-046 19.1]
2. The model may be based on a methodology, long applied by the Applicant on schemes for traffic assignment, but it is unsuitable for assessing travel as a whole in the context of new policy such as the national Transport Decarbonisation Plan (TDP), Bus Back Better, Gear Change, and Greater Manchester's Right Mix.
3. Public transport, walking and cycling have been excluded from the model although they are important policies in the TDP, Bus Back Better and Gear Change. The 'multimodal model' included only regional rail for those with access to a car, excluded buses and, on the information supplied so far at ISH3, did not provide a fine-grained assessment of public transport and active travel.
4. Greenhouse gases have been calculated from **only one** of many different possible architectures, or configurations, of the traffic model and other road and land-based developments in the study area. The configuration used is orientated to assessing road network performance [REP8-029/7.5]. However, it is flawed in two key respects for greenhouse gas emissions assessment: first, it does not provide an accurate quantification of the scheme in isolation, and second, it does not provide any quantification of the cumulative carbon emissions, including from other road and land-based developments: therefore, the application is not compliant with the EIA Regulations [REP8-029]. Soundbites such as the traffic model is "inherently cumulative", or is "compliant with DMRB", **do not** make the environmental statement compliant with the EIA Regulations on cumulative carbon emissions assessment. It is now time for the traffic model to be run in the configurations which will enable EIA Regulation compliance, and as set out in REP8-029.

5. The Uncertainty Log is incomplete according to DfT's Uncertainty Toolkit. The Applicant claims to have followed the spirit of it by using TAG Unit M4 but has not dealt with the source of errors in terms of model parameters and specification. The list of new developments is incomplete, and the number of trips generated and included/ excluded from the model has not been presented. There will be long term changes in travel following the Covid pandemic which are uncertain (e.g. less commuting) and these should be addressed in the Uncertainty Log.

6. Refinements were made to the model during development of the scheme in order to avoid air pollution in Tintwistle and Dinting Vale AQMAs, and along Glossop High Street West, becoming an issue. The pollution with the scheme would have been of such severity that it was considered that it would jeopardise development consent. These model refinement steps could have led to the anomalies in the outputs listed in 9 below.

7. The model does not represent the impacts of the scheme on transport networks in Greater Manchester. The scheme has been treated as an isolated bypass with limited access to Greater Manchester, with a fixed cost function and a masking approach¹ applied to Greater Manchester including to the majority of Oldham, 20% of Tameside and 40% of Stockport boroughs². This is despite the majority of journeys being within Greater Manchester.

8. Data from various sources was used to calibrate the model but how the data has been applied has not been fully explained or given in sufficient detail. Comprehensive baseline traffic flows from 2015 have not been supplied and the use of data from DfT has been dismissed as unreliable. On the one hand we are told the 2015 model was not updated as any new 2020/21 data would be atypical because of the pandemic but

¹The scope of the model extends to the east and west coasts of England, contains a very high number of trips and hence a large overall cost of travel, making relatively small fluctuations in modelled behaviour, potentially influential on overall performance. To minimise this effect a fixed cost function (FCF) was applied [REP2-090 para 3.8 pdf page 287/790]. A cordon is set within the model and costs outside of this cordon are fixed to ensure uniform behaviour between the DM and DS scenarios. This has the effect of eliminating the cost differences caused by changing traffic patterns in those areas. Thus the extra 25% of traffic exiting the M67 roundabout doesn't impose extra costs on the Greater Manchester urban networks to the West. Despite use of the FCF the model was unstable. In order to reduce what was called the model noise, a masking approach was adopted [REP2-090 para 4.5 pdf page 29/790].

In modelling there are sometimes areas which are far away from the scheme in question but subject to change and hard to stabilise (i.e. many model runs are undertaken and they do not tend towards a stable pattern). In these cases they are sometimes deliberately prevented from fluctuating, masking is the technique we are told has been used for the A57. However, in this case the masking is applied to a complex urban area with many journeys in it which use the proposed scheme. Previous CPRE analysis of the trip matrices has shown the high significance of these trips.

Validation of model performance was focused around the scheme area but excludes the really difficult parts of the network (complex urban) which nevertheless has most of the trips using it for a significant part of their journey. Although fewer trips have part of their travel within Sheffield, this has also been excluded from the detailed modelling. In terms of validation we would like to confirm that there is no all mode validation in combination with public transport. Walking and cycling are also missing from the model and its validation.

It is therefore clear that the way that NH has used the model has resulted in substantial exclusions from the assessment of the impacts of the scheme..

² See figure submitted to D10 of fixed cost function area in REP2-090 Figure 3-7 pdf page 289/790 with the three borough boundaries overlain.

on the other told that additional data (automatic turning counts, classified turning counts, signal data, journey times) was collected in 2020/2021. The Applicant now claims the data was historic from 2015-2018³. We are told, but not shown, that hourly flows have been extrapolated to produce the AADT flows. The results of traffic surveys undertaken during 2015/16 have not been presented to the Examination but appear to have been shared with local authorities. Full technical dialogue directly with the modellers has been denied. All this means we have extremely limited and conflicting data with which to understand the model outputs. Blanket assurances of the confidence that the Applicant has in its own work is no substitute for open, comprehensive and consistent presentation of data.

9. Unexplained inconsistencies in the outputs from the model:

- Spurious AADT flows which remain unexplained along Glossop High St. West, Glossop High St. East and along the A628T between Hollingworth and Tintwistle. The first and the last of these could relate to the model refinement to avoid air pollution with the scheme;
- Implausibility of the Applicant's explanation for 7,500 additional vehicles per day in DS 2025 compared to DM at the M67 J3/J4;
- The extraordinary difference in the figures between modelled DM 2025 AADT flows compared to DfT 2019 AADT flows and/or to trends in DfT AADT flows between 2015 and 2019;
- The additional forecast flows on the Shaw Lane/Dinting Road rat run are insufficient to explain the predicted reduction in flows on Glossop High Street West.

10. The Applicant plans to 'update' the model with respect to the incidence of crashes on the Snake Pass at the detailed design stage so there will be no accountability through the Examination. DCC and the Applicant [REP9-020 SoCG] have agreed that *'It is possible that the appraisal overestimates the forecast increase in accidents on this section of road, since it is unlikely that the proposed Scheme will materially change the number of motorcyclists attracted to Snake Road for leisure rides, which is one of the principal reasons for the current high accident rate'* *'It has been agreed that the scheme modelling will be updated as the detailed design evolves'*. The detailed design of the scheme itself is not going to alter the incidence of crashes on the Snake Pass unless it includes a massive traffic restraint measure akin to the Mottram crossroads

³ Data was collected according to the Case for the Scheme 4.3.5 and 4.3.6 for model development during 2020-2021. NH have now said at Deadline 9 that it was not used in the model, it was not collected at all, only 'historic' data was used. *'The traffic data gathered in 2020/21 was historic data (2015-18) to enable proper calibration and validation of the baseline traffic model. No additional traffic surveys were undertaken in 2020/21. The traffic modelling was refined and revised following consultation in Nov-Dec 2020 to reflect scheme design changes and calibration of the baseline model against the gathered historic traffic data. The output of the revised traffic modelling provided updated traffic data for the assessment years used in the Air Quality assessment'* [REP9-027/9.79.111]

and/or average speed cameras along the Pass. This 'updating' appears most unusual as the modelling of accidents on the Snake has been set up to ensure the most accurate relationship between accidents and flow [REP2-090 4.3.7-4.3.8]. Using the COBALT model crashes increase in proportion to increased 24-hr AADT. The model has forecast 38% increases in traffic so unless flows reduce the forecast number of crashes should stay the same.

Examples of the critical impact of the outputs of the model

a) Effects on Glossop, Hadfield and Padfield

The model relies on diversion of traffic off the A57 onto minor adjacent roads and rat running through residential streets. Shaw Lane and Dinting Road are forecast to experience increases of over 1000 AADT. The impacts of this traffic growth have not been adequately addressed at this Examination. The potential need for improvements to Shaw Lane/A57 Dinting Vale junction, a pedestrian crossing to enable safe journeys to school and the railway station across Dinting Road and the implications of on-street parking on Shaw Lane which prohibit two-way traffic movements remain unresolved. Hadfield Road - Cemetery Road also experience increased traffic flows without any assessment of their impact. Referring the situation to post scheme monitoring through the POPE, as proposed by DCC [REP8-023], is too late. Such an issue which relates to wellbeing of residents, including traffic safety near schools, must be frontloaded as a planning issue to be resolved before consent can be given, not backloaded to something to try and deal with post-decision by under-resourced local authorities.

Government guidance TAG Unit M3.1 specifically states that roads in residential areas '*especially rat runs*' should be assessed. DCC and HPBC have expressed their concerns. '*Villages of Hadfield and Padfield should also be safeguarded to prevent rat running traffic trying to avoid the strategic road network*' (REP2-051 3.22 and 14.4 response to WC1; emphasised by REP9-033). A full assessment of the impacts on the road network in Glossop, Hadfield and Padfield must be presented to the Examination and be subject to challenge and scrutiny in the normal way. Without this the ExA cannot assess the adverse impacts of the scheme.

b) Tintwistle AQMA

The Tintwistle AQMA was the location of an air pollution exceedance with the scheme that would have jeopardised development consent and led to the so-called "model refinement." Differences between 2025 DM and DS modelled traffic flows through the AQMA did not meet the criteria for assessment of air quality. The predicted vehicle flows fall 40 vehicles per day short of the required threshold (an increase of 1,000 AADT) required by the guidelines. A shortfall of 40 vehicles per day could arise from refinement and the flawed outputs of the model. A difference in 40 vehicles is insignificant. As a precautionary measure the AQMA must be assessed.

c) Air Quality along the A57

The A57 had two air pollution exceedance sites with the scheme that would have jeopardised development consent and led to model refinement with diversion of traffic through residential side streets. Differences between 2025 DM and DS modelled traffic flows along the A57 between its junction with the A626 Glossop Road and with Norfolk Street did not meet the criteria for assessment of air quality (an increase of 1,000 AADT). The difference between 2025 DS and DM modelled flows was +300 AADT on Dinting Vale and -300 on High Street West. Dinting Vale and High Street West were therefore excluded from the air quality study and only half the AQMA was assessed. HPBC has repeatedly requested assessment of both the Tintwistle and Dinting Vale AQMAs [Local Impact Report REP2-046, 19.1]. It is still having to restate the failure to properly assess these AQMAs at deadline 9 [REP9-033].

d) Impact on European Sites alongside A628T

A Habitats Regulations Assessment is required by Regulation 63 of the Habitats Regulations for all projects and plans which may have 'likely significant effects' on a European Site. The Applicant deemed this assessment unnecessary as the AADT east of the A6024, where the European site boundary is roadside, did not meet the criteria of 1,000 additional vehicles daily. The difference between DM and DS flows in 2025 is +846 AADT. A shortfall to meet the criteria of 150 vehicles per day could arise again from the flawed outputs of the model. The PDNPA has submitted a sustained judgement that the European sites adjacent to the A628T must be assessed [Local Impact Report REP2-048, 8.3.12 through to its deadline 9 response REP9-035]

e) Significance of carbon emissions associated with the scheme

So far, only a single solus quantification of carbon emissions has been made, and this is the wrong solus calculation being an underestimate; and there is no cumulative quantification. This is before further errors in the carbon quantification which may result from the issues outlined above with the traffic model. Further, the IEMA and EIA guidance has not been followed to make assessment of carbon against local and regional policy and targets [REP9-039]. With so many errors, underestimates, omissions, it is not credible to even attempt to assess the significance of the carbon emissions of the scheme, or to reach a reasoned conclusion on the significant effects of the proposed development on the environment and climate change.

Until there is confidence in the traffic modelling all its outputs are questionable. The examples we have given of use of the outputs from the model demonstrate that the worst effects of the scheme are unknown/ uncertain. We cannot accept the outputs of the model at face value without an independent review of the model. Full and proper scrutiny is most important – in 2007 a previous iteration of the proposed development (Mottram-Tintwistle bypass) was abandoned after serious flaws were found in the modelling.

The traffic modelling and its application should be subject to independent assessment. Full technical dialogue with the assessors, the ExA and participants should be established to the satisfaction of all parties at the Examination and in line with professional Codes of Conduct. Only full challenge and scrutiny of the model will enable all parties to have confidence that the model outputs are robust.

2. THE OMISSION OF A WEBTAG COMPLIANT APPRAISAL

A full WebTAG compliant Appraisal should have been supplied to the Examination. The Transport Assessment Report (TAR) for the scheme is no substitute for a WebTAG compliant Appraisal as recognised by Government Guidance - *'it is unlikely that a Transport Assessment or Statement in itself could fulfil the specific role required of a transport element of an Environmental Impact Assessment where this is required.'* The TAR is completely unacceptable on many grounds, including professional practice, and has resulted in insufficient evidence being presented to the Examination to test compliance with Government policy or guidance. It has provided no or extremely limited information on options assessment, model development, forecasting and economic appraisal. A WebTAG compliant Appraisal would include the following detail:

- Current travel demand and level of services
- Opportunities and constraints e.g. the air pollution exceedance sites; details of accident rate on the Snake Pass
- Origin-destination data
- Reference as to how public transport, walking and cycling are addressed
- Calibration or validation of the road network, matrices, screen lines
- Validation of link flows, turning counts and journey times
- Forecasting assumptions including for the local modelled area for public transport (today – 2025 – 2040); cycling (today – 2025 – 2040); walking (today – 2025 – 2040)
- Forecast scenarios high and low growth
- Scheme assumptions
- How AADT flows were calculated
- Traffic forecasts
- Journey times and journey time reliability with realistic origin and destination pairs and zone to zone timings.
- Data on junctions and queue length data for key junctions; how the junctions were modelled
- Detail of economic appraisal
- Trip distances, severance, accident data
- Risk and optimism bias
- Cost profile of scheme.

A robust and complete WebTAG compliant Appraisal should be prepared on a transparent basis, remedying the substantial lack of relevant information in the TAR, and presented to the Examination.

3. THE CARBON ASSESSMENT

The results of the carbon assessment will be a key element in the planning balance required by the Planning Act 2008. The Applicant has taken a position on carbon assessment which is indefensible, not compliant with applicable law and guidance, and technically incorrect, as follows:

- There is **no** EIA compliant cumulative carbon assessment. The applicant keeps saying that “there is no set methodology for cumulative effects assessment” (eg: REP9-027/8.12.4). Notwithstanding whether this is true or not, the point is that the applicant has done **no** quantification, or assessment, of the cumulative effects of the scheme with other developments on carbon emissions.
- There is no assessment of significance against the annual carbon reduction targets, and trajectories, for transport in the Net Zero Strategy 2021 [REP9-039/10].
- There is no local or regional assessment despite two sets of available data (BEIS UK carbon emissions national stats and local authority SCATTER budgets from the Tyndall Centre), and a third set of self-scaling data – a local/regional proxy – provided by the study area and traffic model itself (when corrected and fully transparent).
- The Applicant appears to be not intending to make available the methodology of the sensitivity test on the carbon emissions within the Examination time frame. It is not clear when DfT will approve the validity of its test, also likely beyond the Examination time frame. Given this, it is incredible that this data has been provided to the examiners as if it might add value in making their recommendation to the SoS, but the Applicant has not explained what it means, and how it affects the significance of the carbon emissions associated with the scheme. This is neither due process, nor legitimate and it is unacceptable.
- A full carbon appraisal including the sensitivity test must also be done with a non-road alternative, in order to fulfil the requirement in subsection 7 of section 104 of the Planning Act 2008 to weigh up the adverse impacts and the benefits of the scheme. This comparative assessment would allow the adverse effects of the scheme’s carbon emissions to be placed in context.
- There is a complete lack of transparency on the BCR calculations for the scheme. No recalculation based on the most recent carbon prices has been attempted. The economic case, and the Benefit Cost Ratio (BCR) need to be recalculated against the new carbon price data, and revised traffic modelling which corrects the above flaws. This should include: the construction carbon emissions on the cost side of the BCR; a

solus quantification of the carbon emissions associated with the scheme based on the carbon impacts against the current environmental baseline; the full cumulative carbon emissions with other road and land based developments. Full workings must be supplied to the examination. The provision of an up-to-date economic appraisal of the scheme relates to the **case for the scheme** which is a material issue in the planning decision: it is not legitimate for revisions of the BCR to be promised at later stages in National Highway's own internal process, where they would be outside the planning examination process.

All this falls well short of legal, guidance and policy requirements – the EIA Regulations, the UK's sixth carbon budget, the UK's Nationally Determined Contribution under the Paris agreement, the UK's Net Zero Strategy (and the Climate Change Act), National Highways' licence agreement, EIA and IEMA guidance and NPSNN. To understand the full impacts of the scheme's carbon emissions is not a luxury, it is an absolute necessity. The above assessments must be made - they are required not only by the law, but also by the global scientific evidence as endorsed by the UK Government as below, by the precautionary principle, and by the principle of sustainability.

Being led by the Science

We say above that further assessments must be due to the legal and policy framework. They are also required to be "led by the Science" as the global scientific evidence on Climate Change is endorsed by the UK Government. As background, the Intergovernmental Panel on Climate Change (IPCC) has published three recent reports (all part of its 6th Assessment Report, AR6): the UK Government is a drafter and signatory to the policy statements associated with each of these reports⁴. These form the latest scientific knowledge on Climate Change, and represent a massive scientific endeavour, are underwritten for their policy implications by our own government. The implications of this scientific consensus extends to all levels of government and administration in the UK having been authorised by our national Government. As has been widely reported, the IPCC reports make a clear and unanimous case for very urgent action on Climate Change actioned the immediate and rapid reduction in carbon emissions – not over decades, but over years in the very near future (45% cuts by 2030⁵). On April 4th 2022, Professor Jim Skea, OBE, CBE from Imperial College, London and Co-Chair of IPCC Working Group III said on the release of the latest report "*It's*

⁴ The three latest Summaries for Policymakers are: August 2021 "Climate Change 2021: The Physical Science Basis",

[REDACTED]

Professor Skea is quoted from UN Press Release, "UN climate report: It's 'now or never' to limit global warming to 1.5 degrees", 4th April 2022, [REDACTED]

⁵ "Global net human-caused emissions of carbon dioxide (CO₂) would need to fall by about 45 percent from 2010 levels by 2030, reaching 'net zero' around 2050", Summary for Policymakers of IPCC Special Report on Global Warming of 1.5°C, 2018,

[REDACTED]

now or never, if we want to limit global warming to 1.5°C (2.7°F); without immediate and deep emissions reductions across all sectors, it will be impossible". This means starting serious, evidence-based decarbonisation now in 2022 – not next year, nor the next, nor 2025, **but now**. We do not believe that the Application is consistent with what the scientific consensus requires, as underwritten by our own Government.

4. INSUFFICIENT INFORMATION TO ALLOW 'INTELLIGENT CONSIDERATION'

We have shown above that information is missing, inaccurate or misleading to the extent that it precludes an *'informed and intelligent response'* to the disadvantage of us and other parties that may be affected by the decision (Gunning principles). Under the Aarhus Convention the public are guaranteed the rights of access to environmental information, and public participation in decision-making. As a public agency National Highways should be as open as possible about all the decisions and actions that they take. Sections 7.6-7.9 of National Highways own licence⁶ with the Government requires this. The Applicant should give reasons for their decisions and restrict information only when the wider public interest clearly demands. The Applicant should also be accountable which means submitting to whatever scrutiny is appropriate (Nolan principles). We believe these principles of fairness, openness and transparency have not been met by the Applicant.

5. REQUESTS TO THE ExA

The requests we are jointly making to you are:

- 1 The traffic modelling and its application should be subject to independent assessment.
- 2 A full technical dialogue should be established with the independent assessors, the Applicant, and participants at the Examination to the satisfaction of all parties and in line with professional Codes of Conduct.
- 3 A full WebTAG compliant Transport Appraisal should be supplied to the Examination by the Applicant, including all relevant and important aspects.
- 4 An assessment of the scheme's carbon emissions that meets legal, policy and guidance requirements should be provided by the Applicant.

We understand that what we are asking for would require you to suspend the Examination under EIA Regulation 20 and extend the time span. However we ask you to consider that it would be a serious risk, and a potentially regrettable error leading to ramifications later on, to conclude this Examination on 16th May. The overall objective must be to ensure that the SoS is satisfied that the material provided by the Applicant is sufficient for him to reach a

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reasoned conclusion on the significant effects of the proposed development on the environment, and that it meets legal, guidance and policy requirements. We seriously doubt that you have the information that you need to write your report, to make a recommendation, and to provide the SoS with all the relevant material for his later decision. All four requests are founded in applicable law and guidance, and the resulting obligations placed upon the SoS as decision maker.

If the ExA accepts the risk and error and our requests are not granted, as things stand the scheme must be rejected on three grounds:

1. NH have not followed guidance and have failed to supply all the relevant and necessary information.
2. From the data we have (as opposed to the modelling) the adverse effects of the scheme are very substantial and the benefits unproven.
3. Data that has been provided suggests a major adverse impact on Greater Manchester which has been minimised in the modelling due to the deliberate choices made.

We are happy to supply any additional information you may require.

Yours sincerely,

Andrew Boswell	CEPP
Anne Robinson	CPRE PDSY transport campaigner
Anthony Rae	Transport decarbonisation campaigner
Chris Broome	South Yorkshire Climate Alliance
Daniel Wimberley	Local resident
Helen Rimmer	FoE Campaign Organiser - North West
Laura Stevens	Derbyshire Climate Coalition
Linda Walker	High Peak Green New Deal
Peter Simon	Local resident
Richard Dyer	FoE Campaign Organiser - East Midlands