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SUMMARY PROOF OF EVIDENCE  
**PROFESSOR JOHN WHITELEGG BA PHD LLB**

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ON BEHALF OF  
GWENT WILDLIFE TRUST

In the matter of:  
Public Local Inquiry into the M4 relief road around Newport: **The  
Economic case: jobs, inward investment and regeneration**

February 2017

## **QUALIFICATIONS AND EXPERIENCE**

1. My name is John Whitelegg. I am a Visiting Professor in the School of the Built Environment at Liverpool John Moores University and a transport consultant.
2. My professional background is geography, economic development and as an economic development officer in a UK local authority.
3. My PhD was in the area of industrial location theory and change over time in the opening, closing, decline and growth of the firm
4. I have worked on transport projects for over 40 years, written 10 books on transport and now edit the journal "World Transport Policy and Practice". The projects include ex-post evaluation of job creation and inward investment following new highway and motorway investments, the impact of new highways on air quality and greenhouse gases and the performance of non-highway building measures on reducing congestion and pollution and stimulating local economic performance.
5. I have presented evidence on various matters at the public inquiries into the Birmingham Northern Relief Road, the Heysham M6 link, the Broughton (Lancashire) Bypass, Heathrow Terminal 5, Manchester Runway 2, Redhill Aerodrome, the Thames Gateway Bridge, Walton Bridge (Surrey), the Westbury Bypass and the BAA appeal against the decision of Uttlesford District Council to refuse planning permission for the expansion of Stansted Airport.
6. I am an advisor to the World Health Organisation on road safety and the author of transport strategies and plans for Kolkata (India) and Beijing (China).

## **2 SCOPE OF THIS EVIDENCE**

7. The M4 relief road around Newport has been promoted and justified on the grounds that it will reduce congestion and contribute to local economic viability in the Newport area and in the wider sub-region.
8. My evidence will cover the following 4 topics

- a) Road building on the scale suggested around Newport is incompatible with sustainability considerations and objectives. I identify specific Welsh Government policy statements and documents that demonstrate this incompatibility.

The project as a whole is not in conformity with Welsh Assembly Government sustainability policies. This non-conformity is a serious departure from legislative intention (The Environment (Wales) Act 2016) and is a serious matter. It is even more serious than a departure because it represents a deliberate decision that is contrary to legislation, made in the full knowledge that there are many low carbon and zero carbon alternatives to the most damaging option, the one that is before this Inquiry. The WAG has chosen the “carbon max” option and no reasonable, independent observer would accept this is compatible with climate change policy and expressions of support for reducing greenhouse gases. This perverse and unreasonable decision brings the whole UK and WAG governmental effort on climate change into disrepute, it reduces the chances of success in reducing greenhouse gases by 80% on a 1990 base by 2050 and it imposes greater burdens on other sectors of the economy e.g. housing and businesses, than would otherwise be the case with no attempt to cost the impact of this greater burden on businesses. It is perverse and unreasonable for a well-directed Government to sign up to serious Climate Change policy objectives and then identify a preferred option (the M4 relief road) that maximises those same greenhouse gases that it is committed to reduce.

- b) New road building generates new traffic (so-called “induced traffic”) and adds to congestion problems in and near urban areas and city regions. This additional congestion defeats the economic justification/rationale for new roads and additional road capacity is “consumed” by trip purposes not directly related to a strong local economy.

The assertion that the new road will reduce congestion is not supported by over 20 years of analysis and ex-post monitoring of congestion after new road capacity has been added to a transport corridor. The 1994 SACTRA report on induced traffic is widely quoted throughout the world as evidence that new roads create new traffic and do not contribute to reducing congestion. The research on the subject of induced traffic is detailed, robust and validated and the case for the M4 relief road does not attempt to review this evidence and translate that evidence into a clear plan for a long-lasting, fundamental solution to congestion.

The conclusion of the SACTRA (1994) report was: "An average road improvement, for which traffic growth due to all other factors is forecast correctly, will see an additional [i.e. induced] 10% of base traffic in the short term and 20% in the long term."

- c) The evidence nationally and internationally is very clear and new road building is just as likely to drain jobs away from a local economy as it is to attract them. The economic case for the M4 relief road is assisted by optimistic assumptions about congestion relief that are unlikely to appear. The out-turn BCA is then lower than one that was fed into the decision making process and the Value for Money (VFM) case for the road collapses.

The assertion that new road capacity will in some way stimulate local economic activity, investment, job creation and assist regeneration is not supported by the evidence. Once again there is a highly regarded SACTRA (1999) report on this topic and as in the case of induced traffic its findings have not been factored into the search for long lasting solutions to fundamental economic development problems. Its conclusion is central to the serious, evidence-based consideration of the case for the M4 relief road:

*"In the search for empirical evidence, we find that direct statistical and case-study evidence on the size and nature of the effects of transport cost changes is limited. Some authors have claimed that national programmes of public investment, including road construction, lead to high rates of social return measured in terms of economic growth and productivity improvement. Other authors suggest that such effects do occur but on a smaller scale than has been claimed, and that, in general, any contribution to the sustainable rate of economic growth of a mature economy, with well-developed transport systems, is likely to be modest. Our investigations support the latter assessment. We have also reviewed available evidence from specific local studies seeking to detect economic impacts from completed transport investment projects in the recent past. The state of the art of this important field is poorly developed and the results do not offer convincing general evidence of the size, nature or direction of local economic impacts. "*

(Paragraph 11, page 7)

I present scientific evidence in my proof of evidence (para 10.24) showing that there is no relationship between accessibility and measures of economic performance (Whitelegg, 1994). The promoter asserts that there is a link but has failed to present data or verifiable evidence in support of that assertion

- d) The principles that underpin Transport Appraisal have not been followed. The road building option has achieved a dominant position in a wider discussion of regional

economic, public health and sustainability when the non-road building options have not been clearly specified or “worked up” in sufficient detail to be tested against the road building option.

I have shown that there is a well-developed approach to Transport Appraisal in the UK. This is described in WebTag. This is based on very clear steps involving a wide ranging option listing process that includes all modes and non-road building alternatives. This process has not been followed in the case of the M4 relief road. The proposal is not in conformity with guidance on Transport Appraisal and it is not acceptable to proceed with a very expensive project that has so blatantly ignored guidance. Transport interventions that reduce congestion, improve journey time reliability, reduce greenhouse gases and improve air quality are very important indeed and have not been given the attention they deserve in the gestation of this very expensive project. These interventions are often referred to as “smarter choices” and the evidence around “smarter choices” is detailed and robust. This includes workplace travel plans improvements in high quality rail, tram and bus services, personalised journey planning, school travel plans and fiscal alternatives e.g. the Nottingham workplace parking levy and congestion charging on the London and Stockholm models.

The “smarter choices” agenda (DfT, 2005) has been accepted and promoted by government and a full list of specific measures described as “smarter choices” can be found in a DfT report on this subject.

The case for the M4 relief road has not followed guidance on Transport Appraisal (TA). TA is based on a logical process and a sequential approach (1) clearly define the problem (2) list all the options that are available to deal with these problems including fiscal and regulatory intervention (3) carry out a thorough assessment of all these options without bias towards road building to identify the “best performer” defined by the totality of VFM, environmental, ecological, economic, climate change and safety criteria

## **Conclusion**

9. The M4 relief road has been promoted and developed in an evidence-free environment and cannot deliver its key objectives. It is a road building solution to a complex web of problems that has ignored the large number of ways in which specific problems can be clearly described and specific solutions based on evidence can be designed to target those specific problems. It is a very expensive and deeply flawed project and has been justified on inaccurate VFM and BCA calculations
10. There is a very strong case for going back to the drawing board and designing solutions to problems where there is evidence that they do work and they do have very high BCA ratios and much higher VFM outcomes. South East Wales and the Newport sub-region require an intelligent, evidence based answer

to a number of problems and this new road is neither intelligent nor evidence-based. Progress in a genuinely sustainable development and sustainable transport context focussing on sub-regional problems and needs requires this road proposal to be rejected and we can all begin to work on interventions that will deliver key objectives.

## References

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