

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



File Ref WG/REB/6904 – Wentlooge CC

Llywodraeth Cymru
Welsh Government

Objection Ref OBJ6904

Response to Objector's Evidence: Wentlooge Community Council

1. GROUNDS FOR OBJECTION

1.1. Details

1.1.1. Wentlooge Community Council has submitted a Statement of Evidence dated 30th January 2017 in relation to the draft statutory Orders associated with the Welsh Government's proposals for the M4 Corridor around Newport, which has been received via the Programme Officer.

1.1.2. The Welsh Government understands the evidence submitted within Wentlooge Community Council's Statement to be based on the following:

1. Concerns that the Scheme would amount to inappropriate development within the Peterstone and St Brides' SSSI's and would have significant negative impact.
2. Concerns that the carbon footprint involved in the road's construction will be vast and impact upon 100's of hectares of land.
3. Concerns about landscape visual impacts on the Gwent Levels.
4. Concerns about the noise impacts of the Scheme the St Brides coastal area, Lighthouse Park and Duffryn areas. Suggests that traffic on the elevated sections across the moors some 22 feet in the air without any mitigating barriers will create noise that will affect Dyffryn and Grade I Listed Tredgar house and Peterstone and St Brides SSSIs.
5. Concerns about the vehicular [air] pollution impacts of the Scheme.
6. Concerns that surface water will discharge in existing watercourses and will cause harm to mammal and invertebrate populations.
7. States that the evidence the Community Council has seen appears to contradict the argument that building another road solves the problem of congestion.
8. Concerns about future opportunities for the 'corridor for development'; especially at the eastern end south of Llanwern Steel works and between the proposed Church Lane overbridge and intercity railway line.
9. States that the current cost estimate is considered optimistic and likely to be nearer £1,500m or even £2,999m, taking into account the M74 extension cost nearly twice the cost per metre than quoted for the Scheme. Concerns that increases in other construction costs and higher

than forecast land prices/compensation to landowners are all likely to contribute to over spend. This higher cost (PVC) will seriously undermine the economic benefit ratio (BCR) derived.

10. States that it is unclear whether ground conditions have been fully investigated/taken into account, especially for the high level section from Dyffryn Railway Bridge to the Ebbw River.
11. States that there are a variety of potential alternatives that need to be investigated much more extensively which would 'move' this potential source of environmental pollution further away.
12. Suggests Welsh Government develops a sustainable transport strategy to reduce reliance on motor vehicles for the transport of goods and people.
13. Suggests that alternative options should include the construction of complex and sophisticated metro systems, trains, tram and bus networks which are less noisy and less polluting.
14. Suggests an alternative that would utilise the existing M4 upgraded vis à vis hard shoulders, curves, gradients etc. and cut off access to/from local traffic. There are too many junctions allowing the M4 to be used as a 'rat-run' for local Newport traffic, only J24 Newport East and J28 Newport West should remain.
15. Suggests that complimentary 'resilience' measures should also be investigated in more detail to improve local road network capacity (i.e. the SDR and so called 'Blue' route are currently used as a short cut from Tredegar J28 to Magor Services J23A avoiding the Brynglas tunnels at rush hours).
16. Suggests a new tunnel solution such as the Dartford Tunnel and Paris underpasses.
17. States support for an adapted version of the Blue Route.
18. States support for an adapted version of the Green Route.
19. Suggests that the Northern Variations of the red or purple routes could lessen impacts on the SSSI.

2. REBUTTAL

2.1. Points Raised

2.1.1. Some of the above points have already been addressed in proofs of evidence. Others are dealt with by topic by the relevant witness in the following sections, in addition to their general proofs of evidence, to which readers should also make reference in their entirety for a full understanding of the Welsh Government's case. For ease of reference the places where the above points are addressed in this Rebuttal are listed in the table below:

Objector's point reference	Rebuttal paragraph reference	Objector's point reference	Rebuttal paragraph reference
1	2.2.1	11	2.1.2
2	2.1.2	12	2.1.2
3	2.1.2	13	2.1.2
4	2.1.2	14	2.1.2
5	2.3.1	15	2.1.2
6	2.4.1	16	2.1.2
7	2.5.1	17	2.1.2
8	2.6.1	18	2.1.2
9	2.1.2	19	2.1.2
10	2.7.1		

2.1.2. The Objector's points that have already been covered in proofs of evidence are as follows:

1. **Point 2** (*Concerns that the carbon footprint involved in the road's construction will be vast and impact upon 100's of hectares of land*) / The capital carbon resulting from construction has been quantified in detail in the Carbon Report (Document 2.3.3, Vol.3, Appendix 2.4) Sections 2.3 and 3.2 Further information is provided in the evidence of Tim Chapman (WG1.13.1), which demonstrates that a full and rigorous analysis of future carbon based on detailed traffic modelling, including the assessment of construction effects, has been undertaken. The Scheme would not lead to an increase in total emissions but a small reduction in annual user carbon emissions in both the opening and design years. .

2. **Point 3** (*Concerns about landscape visual impacts on the Gwent Levels*)
/ There would be a permanent large adverse effect resulting from the impacts on the registered Gwent Levels Landscape of Outstanding Historic Interest. This is acknowledged in the Environmental Statement (ES) at paragraph 8.8.11 and in the Proof of Evidence of Nicholas Rowson (paragraph 7.11). Some offsetting of these impacts would be provided by way of a programme of historic landscape study. John Davies in his evidence (WG1.23.1) considers the likely impacts of the Scheme taking into account its benefits, balancing economic, social, cultural and environmental issues. At section 248 of his evidence, John Davies states that: “On balance I conclude that the benefits the Scheme would bring, by relieving the problems associated with the M4 motorway, provide a compelling case in its favour that outweighs the cumulative policy conflicts. In reaching this conclusion I have taken account of the fact that the Scheme has been developed with embedded and additional mitigation to minimise the adverse effects of the new section of motorway, so that in time the impact on the landscape and natural heritage, and other environmental effects, would significantly reduce.” He concludes that the Scheme is necessary to solve the inadequacies of the M4 around Newport and should proceed.
3. **Point 4** (*Concerns about the noise impacts of the Scheme the St Brides coastal area, Lighthouse Park and Duffryn areas. Suggests that traffic on the elevated sections across the moors some 22 feet in the air without any mitigating barriers will create noise that will affect Dyffryn and Grade I Listed Tredgar house and Peterstone and St Brides SSSIs*) / Full details of the impacts on properties and the SSSIs are provided in Chapter 13 of the Environmental Statement (ES) (Document 2.3.2) and in detail in ES Supplement Appendix S13.4: Operational Noise and Vibration Assessment of September 2016 (Document 2.4.14). Section 7.4.6 of Phillip Evans’ Proof of Evidence (WG1.12.1) clarifies that mitigation measures, in addition to the embedded measures, comprising noise barriers of 2m height are proposed in four areas along the new section of motorway:

- a) Duffryn – north side of the new section of motorway – 1,640m run from the west extending to Lighthouse Road Overbridge – 2m height protecting some 100 properties.
- b) Duffryn – north side of the new section of motorway – 590m run east from Lighthouse Road Overbridge – 2m height protecting some 80 properties.
- c) West of Magor – southeast side of the new section of motorway – 760m run south from Green Moor Lane. 2m height protecting approximately 100 properties and Caldicot Levels.
- d) North of Magor – south side of the new section of motorway – 1,225m run from Newport Road and Vinegar Hill - 2m height protecting approximately 150 properties.

The barriers would generally be such as to remove the direct line-of-sight between the carriageway and some or all windows on the facades of the nearer receptors hence providing the expected attenuation.

Results of the noise assessment are provided in summary within section 8 of Phillip Evans' evidence. Section 8.2.2 of Phillip Evans' evidence in particular addresses noise in the Duffryn areas, stating:

'Duffryn – Houses on the southerly fringe facing the Scheme would experience an increase in traffic noise but again not to levels that would be generally considered unreasonable in accordance with appropriate standards and guidance (British Standard 8233:2014 Guidance on sound insulation and noise reduction for buildings [Document 14.2.14] and World Health Organization. Guidelines for Community Noise [Document 14.2.15] where the former states it is desirable that the external noise level does not exceed 50 dB LAeq,T with an upper guideline values of 55 dB LAeq,T). The quieter outer fringe of Duffryn (e.g. Oystermouth Way) has relatively little traffic noise, which would increase to levels in the low to mid 50s dB LA10,18hr (LAeq levels are generally 2 to 3 dB lower than LA10 levels for the same measurement so a LA10 of 55 dB would equal and LAeq of around 53 dB).'

1. **Point 9** (*States that the current cost estimate is considered optimistic and likely to be nearer £1,500m or even £2,999m, taking into account the M74 extension cost nearly twice the cost per metre than quoted for the Scheme. Concerns that increases in other construction costs and higher than forecast land prices/compensation to landowners are all likely to contribute to over spend. This higher cost (PVC) will seriously undermine the economic benefit ratio (BCR) derived*) / Matthew Jones' Proof of Evidence WG1.1.1 at section 13 addresses cost and budgets. At section 13.2 it explains the cost estimate was developed in light of extensive ground investigation, environmental surveys, stakeholder consultation and general development work undertaken in collaboration with the EC1 contractor, designers and employer's agent. The M74 extension is clearly not comparable in terms of location, scope, ground conditions, or procurement approach. Stephen Bussell presents the economic assessment of the Scheme in his Proof of Evidence (WG1.3.1).
2. **Point 11** (*States that there are a variety of potential alternatives that need to be investigated much more extensively which would 'move' this potential source of environmental pollution further away*) / Matthew Jones in his Proof of Evidence WG1.1.1 at section 3 explains the background to the development of the Scheme, including consideration of alternatives.
3. **Points 12 and 13** (*Suggests Welsh Government develops a sustainable transport strategy to reduce reliance on motor vehicles for the transport of goods and people*), (*Suggests that alternative options should include the construction of complex and sophisticated metro systems, trains, tram and bus networks which are less noisy and less pollute*) / Matthew Jones in his Proof of Evidence WG1.1.1 at section 3 explains the background to the development of the Scheme, whilst at section 9 he explains how public transport improvements have been taken into account. WG1.1.1 paragraphs 23.10-23.13 explain how both the metro and the M4 proposals form part of the Welsh Government's integrated transport strategy and that it is the long term sustainable solution to the problems on the M4 around Newport. Paragraph 24.17 clearly states:

"In collaboration with our proposals for a South Wales Metro, it forms a vital part of our vision for an efficient and integrated transport network for Wales."

4. **Points 14, 16 and 19** (*Suggests an alternative that would utilise the existing M4 upgraded vis à vis hard shoulders, curves, gradients etc. and cut off access to/from local traffic. There are too many junctions allowing the M4 to be used as a 'rat-run' for local Newport traffic, only J24 Newport East and J28 Newport West should remain*), (*Suggests a new tunnel solution such as the Dartford Tunnel and Paris underpasses*), and (*Suggests that the Northern Variations of the red or purple routes could lessen impact on the SSSI*) / Matthew Jones in his Proof of Evidence WG1.1.1 at section 3 explains the background to the development of the Scheme, including alternatives previously considered. The M4CEM Programme between 2010 and 2012 considered works to the existing M4, tunnel options and junction closures. Appraisals (see section 4.3 and 4.4 of the Inquiry Library Documents) set out that a new section of motorway to the south of Newport would best address the identified problems and achieve the objectives of the M4 around Newport, with other alternatives discarded. That led to adoption of the Plan (Document 4.5.7) and the current Scheme development. WG1.1.1 section 23 considers objectors' suggested alternatives. As stated in Matthew Jones' Proof of Evidence WG1.1.1 at paragraph 24.17, the Scheme is considered by Welsh Government to be the long term, sustainable solution to the serious problems experienced on the M4 around Newport. In collaboration with our proposals for a South Wales Metro, it forms a vital part of our vision for an efficient and integrated transport network for Wales. There is a compelling case in the public interest for the Scheme to proceed.
5. **Points 15 and 17** (*Suggests that complimentary 'resilience' measures should also be investigated in more detail to improve local road network capacity (i.e. the SDR and so called 'Blue' route are currently used as a short cut from Tredegar J28 to Magor Services J23A avoiding the Brynglas tunnels at rush hours)*), (*States support for an adapted version of the Blue Route*) / An Appraisal of Objectors' Alternative Blue Route Proposals Report (Document 6.2.35) considers the Blue Route as confirms it would not address the problems or achieve the objectives of the M4 Corridor around Newport.

6. **Point 18** (*States support for an adapted version of the Green Route*) / Matthew Jones' Proof of Evidence WG1.1.1 at section 23 outlines how objectors' suggested alternatives are being considered as part of the Public Local Inquiry. Mr Mike Smith, Mrs Liz Smith, Mr Graham Wynton & Mrs Jennifer Wynton are promoting the Green Route at the Inquiry and the Welsh Government has prepared a rebuttal to their evidence (OBJ0210/0287) separately.

2.1.3. The other points are responded to by specialist topic in turn in the sections following.

2.2. Peter Ireland (Environment – General)

- 2.2.1. Response to **Point 1** (Concerns that the Scheme would amount to inappropriate development within the Peterstone and St Brides' SSSI's and would have significant negative impact):
 1. There would be no development associated with M4CaN within either the Gwent Levels – Rumney and Peterstone SSSI or the Peterstone Wentlooge Marshes SSSI. With regard to the Gwent Levels – St Brides SSSI the effect of building and operating the new section of motorway on the environment is set out in the Environmental Statement (Document 2.3.2) and its Supplements (Documents 2.4.4 and 2.4.14). The Environmental Statement acknowledges the importance of the Gwent Levels and clearly identifies the magnitude and significance of effects on a wide range of environmental features and assets.
 2. The effects on the environment have to be balanced with the benefits of the Scheme, and John Davies in his evidence (WG1.23.1) considers the likely impacts of the Scheme taking into account its benefits, balancing economic, social, cultural and environmental issues. At section 248 of his evidence, John Davies states that: "On balance I conclude that the benefits the Scheme would bring, by relieving the problems associated with the M4 motorway, provide a compelling case in its favour that outweighs the cumulative policy conflicts. In reaching this conclusion I have taken account of the fact that the Scheme has been developed with embedded and additional mitigation to minimise the adverse effects of the new section of motorway, so that in time the impact on the landscape

and natural heritage, and other environmental effects, would significantly reduce.”

2.2.2. I confirm that the statement of truth and professional obligations to the inquiry from my main proof still applies.

2.3. Michael Bull (Air Quality)

2.3.1. Response to **Point 5** (Concerns about the vehicular [air] pollution impacts of the Scheme):

1. An air quality assessment has been undertaken as referenced in Michael Bull's Proof of Evidence WG1.12.1), which confirms that:

'During operation the Scheme will move traffic away from the more populated areas of Newport and consequently the population exposure to air pollutants will inevitably reduce. Air quality would generally improve in the more populated areas reducing overall exposure to air pollutants but inevitably reduce in areas alongside the proposed new section of motorway. However, no exceedance of air quality standards would be expected and air quality would particularly improve in the areas that are currently the most polluted including the Air Quality Management Areas. The population exposure to pollutants will reduce considerably with more than 29,266 properties experiencing a reduction in pollutant concentrations (compared with less than 1,598 experiencing an increase)... I have also examined the operational impacts on ecological receptors and concluded that the changes in NO_x concentrations and nitrogen deposition are small and considered not to be significant. At one SSSI there is a major beneficial impact from the Scheme.'

- 2.3.2. I confirm that the statement of truth and professional obligations to the inquiry from my main proof still applies.

2.4. Richard Graham (Water Quality)

2.4.1. Response to **Point 6** (Concerns that surface water will discharge in existing watercourses and will cause harm to mammal and invertebrate populations):

1. The Water Treatment Areas (WTA) receive road drainage resulting from rainfall flowing off impermeable surfaces of the motorway that is captured in road side channels. These channels are grass lined within most of the sections within the SSSI. This drainage will contain low concentrations of hydrocarbons and metals along with suspended sediment. The drainage design incorporates systems designed to remove and dilute these potential pollutants to levels, demonstrated through appropriate risk assessment, not to lead to significant impact to ree water quality and be protective of invertebrates, and by association, also mammals. Routine monitoring is also proposed during operation of the new section of motorway to measure the ree water quality at each proposed WTA discharge to identify any deficiencies that would require further water treatment. The Welsh Government have registered a commitment not to discharge water from treatment area that does not meet SSSI requirements for water quality.

2.4.2. I confirm that the statement of truth and professional obligations to the inquiry from my main proof still applies.

2.5. Bryan Whittaker (Traffic)

2.5.1. Response to **Point 7** (States that the evidence the Community Council has seen appears to contradict the argument that building another road solves the problem of congestion):

1. It is accepted there may be some induced traffic. However this does not simply fill up the additional capacity, but rather a new balance between supply and demand is formed, in which there is more traffic but less congestion, thereby making journeys quicker, safer and more reliable.
2. Therefore induced traffic should not necessarily be interpreted as a negative effect, as users still benefit from easier access and journeys. The M4CaN model predicts the extent of induced traffic and traffic suppression quantitatively.

3. Any change to journey times and costs of travel influences the level of demand for travel. Providing new road capacity or service improvements to public transport can elicit a number of responses, and could result in additional trips and/or additional mileage, collectively referred to as 'induced traffic'.
4. The transport model has been developed so that it can capture a range of behavioral responses to these changes which include reassignment, the switching of trips between highways and public transport and changes in trip destination.
5. The scheme will increase the number of vehicle-kilometres driven within the study area. In the design year 2037, the increase is 0.3% in the AM peak hour, 0.0% in the average inter-peak hour, and 0.2% in the PM peak hour. Forecast traffic growth between the base year 2014 and the design year 2037 is in the order of 30%. The scale of this induced traffic is no more than around 1% of the background traffic growth which is forecast to occur.

2.6. John Davies (Sustainable Development)

- 2.6.1. Response to **Point 8** (Concerns about future opportunities for the 'corridor for development'; especially at the eastern end south of Llanwern Steel works and between the proposed Church Lane overbridge and intercity railway line):
 1. Proposals to develop areas of land such as those mentioned are not a matter for the inquiry. Any future applications would be considered against the Local Development Plan and national planning policies. Allowing the Scheme to go ahead would not set any precedent for the future development of such land since the circumstances leading to a decision to construct the new section of motorway would not apply.

2.7. Barry Woodman (Construction)

2.7.1. Response to **Point 10** (States that it is unclear whether ground conditions have been fully investigated/taken into account, especially for the high level section from Dyffryn Railway Bridge to the Ebbw River):

1. Extensive and detailed ground investigation works have been undertaken since 1997 along various route options of the M4 CAN and at the Duffryn Rail Bridge to River Ebbw site. This has presented a detailed information of the underlying geology and its engineering properties. This information has been analysed by our Geotechnical Design teams to develop the appropriate geotechnical solutions along the route. The Ground investigation data has also been used by our specialist piling contractors to ensure appropriate piling methods will be adopted realistic construction outputs and associated construction programme durations used in similar ground conditions.

2.7.2. I confirm that the statement of truth and professional obligations to the inquiry from my main proof still applies.