

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



Llywodraeth Cymru
Welsh Government

Objection Ref OBJ0210 / OBJ0287

File Ref WG/REB/OBJ0210/OBJ0287 – Smith/Wynton

Response to Objector's Evidence:

Mr Mike Smith, Mrs Liz Smith, Mr Graham Wynton & Mrs Jennifer Wynton

1. GROUNDS FOR OBJECTION

1.1. Details

1.1.1. Mr Mike Smith, Mrs Liz Smith, Mr Graham Wynton & Mrs Jennifer Wynton have submitted a Statement of Evidence dated September 2016 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 their Statement to be based on the following:

1. States that the suggested alternative, known as the Green Route, would lessen the impact upon the countryside.
2. States that the Green Route would remove the visual impact on properties located in Llanfihangel Rogiet and Undy.
3. States that there is no logic and justification for moving J23 from its current location.
4. Concerned that with the Published Scheme, Magor motorway services will move and there will be pressure for further development around the new junction.
5. States that the proposed 'hamburger arrangement' at the proposed J23 would be extremely complicated.
6. States that there will be a massive land take from the area east of Magor with the Published Scheme.
7. States that the impact on Llanfihangel Rogiet Conservation area would be unacceptable.
8. Concerned about the visual impact on properties located in Magor, Undy and Rogiet.
9. States that the Green Route proposal will remove the threat of visually intrusive impacts on the landscape. The proposed new junction at Llanfihangel Rogiet and the visual impact on the landscape will be almost insignificant with the Green Route.

10. States that the Green Route will utilise a massively under used M48 which probably only carries 10% of the traffic volume that the B4245 currently carries.
11. States that with the Green Route most, if not all, traffic from Caldicot and the surrounding areas will be able to access the motorway network at the proposed M48 roundabout instead of travelling further west to Magor. Traffic flows arising from the east of Magor would be able to access the motorway network quicker and easier using a more simplified interchange with the Green Route.
12. States that with the Green Route, traffic from Caldicot and the surrounding areas which currently uses the A48 towards Chepstow to access the M48 are likely to use the proposed M48/B4245 junction, thus reducing traffic impact at Pwllmeyric and Chepstow. The Green Route would allow for a spin-off benefit for Pwllmeyric and St Lawrence roundabout which experiences severe traffic congestion at peak times.
13. States that the proposed Green Route M48/B4245 junction would reduce traffic impact in Rogiet, Magor and Undy along the B4245. Traffic congestion in Magor will be considerably eased if the proposed junction at Caldicot is adopted with the Green Route.
14. States that the proposed Green Route M48/B4245 junction would achieve the objectives without destroying the countryside around Llanfihangel Rogiet and Undy and at considerably less cost.
15. States that the proposed Green Route M48/B4245 junction, in conjunction with the retention of the existing J23A, provides for all movements of traffic both eastbound and westbound. The traffic would access all points both east and west on the motorway network with the Green Route.
16. States that there is no significant land take with the Green Route, whilst the costs of the interchange would be less than 1/10th and would utilise much under used road.
17. States that with the Green Route there would be no adverse impact on the Magor Service area and the surrounding businesses. The Green Route would ensure the future of Magor Service area and businesses located at the Wales 1 business park.

18. States that the Green route is not free of adverse environmental impact but the impact on the Gwent Levels SSSI will be considerably reduced. The impact on the SSSI would be almost negligible with the Green Route.
19. States that there would be no impact upon the village of Magor with the Green Route.
20. States that it is likely that no properties would have to be demolished with the Green Route.
21. States that with the Green Route there would be not be a carriageway consisting of 12 lanes running alongside each other as they approach Magor.
22. States that substantial costs savings would be made with the Green Route.
23. States that the Green Route would have significantly less environmental impact than the proposed Published Scheme junction which is inconsistent with the Welsh Government's sustainable development duty, climate change commitments and aspirations.
24. States that land take is significantly reduced with the Green Route. The resulting land take will be removed and currently viable farming enterprises would be retained with the Green Route.
25. States that with the Green Route, the proposed M48/B4245 junction at Caldicot ties in neatly with Monmouthshire County Council's proposed local road improvement scheme and access to the Severn Tunnel Junction (STJ) rail station, and as such would improve access to that critical and important rail interchange.
26. States that Green Route would have significantly more impact on improving the Severn Tunnel Junction rail station than the proposed Published Scheme J23.
27. States that all objections based on the Published Scheme route around Magor and the new J23A will be resolved with the Green Route.
28. States that the Green Route acknowledges the need for an alternative route to the existing M4 but it achieves this without compromising the built-up area of Magor Village and the surrounding area.

29. States that the Green Route removes all threats to properties in and surrounding Magor and prevents any further blight on that community.

2. REBUTTAL**2.1. Points Raised**

2.1.1. The above points are dealt with by topic by the relevant witnesses in the following sections. Readers should also make reference to the Proofs of Evidence 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	16	2.7.1
2	2.2.2	17	2.8.1
3	2.3.1	18	2.9.1
4	2.11.1	19	2.4.1
5	2.3.1	20	2.4.1
6	2.4.1	21	2.2.2
7	2.5.1	22	2.7.1
8	2.2.2	23	2.11.2
9	2.2.2	24	2.4.1
10	2.6.1	25	2.10.1
11	2.6.2	26	2.10.1
12	2.6.3	27	2.10.1
13	2.6.4	28	2.10.1
14	2.7.1	29	2.10.1
15	2.6.5		

2.2. Nicholas Rowson (Landscape)

2.2.1. Response to **Point 1** (States that the suggested alternative, known as the Green Route, would lessen the impact upon the countryside):

1. From an environmental impact perspective, I am of the opinion that the impact of the Green Route on the countryside is not necessarily less. The junctions proposed with the Green Route require significant new highway infrastructure between Magor Services and Wilcrick on the existing M4 and between Rogiet and Caldicot on the existing M48. Both locations are in open countryside with the latter being an important buffer between Rogiet and Caldicot. With the proposed Scheme it is the existing M4 J23 that is enlarged. Whilst the infrastructure of the Green Route is less than that of the published Scheme between J23a and the M4/M48 interchange, the scale of the Green Route junction west of J23a and of the new junction on the M48 (both of which are, unlike the published scheme, remote from existing junctions) are such that in overall consideration of both landscape and visual impacts, it is judged to have greater impact than the published scheme due to the magnitude of change that would take place at those locations.
2. The Green Route would create a new road corridor through open countryside between Llanwern and the existing M4 to the west of M4 J23a whereas the published Scheme follows an existing road corridor (A4810). I note that the complexity of the junction and the level changes both on the existing M4, as it drops to the west, and the steep side slope to the levels are such that the junction and approaches would require considerably more earthworks and new bridge construction than the published scheme which has the benefit of more closely following existing ground levels. As I explain in my evidence (WG1.8.1), as long sections of this corridor would be on embankment (e.g. to get over the main railway line) they would dominate the landscape and result in visual impacts on the settlements of Bishton and Wilcrick in particular.
3. The Green Route would pass through more rural land between Wilcrick Hill and Bishton than the semi-urban land between Magor and the A4810. As such it will affect new and different visual receptors (residential, PRoW's etc.) to the WG Scheme as well as affecting a different area of

LLCA5: Chepstow Woods South West (which is classed as moderate sensitivity, the same as LLCA9: Magor and Undy) where extensive earthworks would be required, this being located within the comparatively undisturbed countryside landscape between the railway line and the existing M4, rather than the landscape around Junction 23 (where the published scheme is noted as affecting LLCA5).

2.2.2. Response to **Points 2, 8, 9 and 21** (States that the Green Route would remove the visual impact on properties located in Llanfihangel Rogiet and Undy), (Concerned about the visual impact on properties located in Magor, Undy and Rogiet), (States that the Green Route proposal will removed the threat of visually intrusive impacts on the landscape. The proposed new junction at Llanfihangel Rogiet and the visual impact on the landscape will be almost insignificant with the Green Route) and (States that with the Green Route there would be not be a carriageway consisting of 12 lanes running alongside each other as they approach Magor):

1. Chapter 9 of the Environmental Statement (Document 2.3.2) and its Supplements (Documents 2.4.4 and 2.4.14) describe the effects of the Published Scheme on landscape and visual receptors (residential properties specifically within Appendix 9.6 and Figure 9.16). The Landscape Environmental Masterplan drawings (sheets 12-15) show proposed mitigation measures.
2. The visual impact of the Green Route is appraised within the Objectors' Suggested Alternatives Report (Document 4.7.2). It states that with the Green Route there would be no impact on the Llanfihangel Rogiet Conservation Area and reduced impact on the Gwent Levels SSSI but that there would be an adverse visual impact along part of the alternative route as it would need to be raised on embankment and structures, particularly as it heads south across the comparatively undisturbed landscape between Bishton and Wilcrick.
3. In landscape terms, the impact of the Green Route is on a different area of LLCA5: Chepstow Woods South West (which is classed as moderate sensitivity, the same as LLCA9: Magor and Undy) where extensive earthworks would be required, this being located within the comparatively undisturbed countryside landscape between the railway line and the

existing M4, rather than the landscape around Junction 23 (where the published scheme is noted as affecting LLCA5).

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

2.3. Ben Sibert (Engineering)

2.3.1. Response to **Points 3 and 5** (States that there is no logic and justification for moving J23 from its current location) and (States that the proposed 'hamburger arrangement' at the proposed J23 would be extremely complicated):

1. Paragraphs 4.41-4.45 of my Proof of Evidence (Document 1.5.1) outline the design development of and reasoning for the junction arrangement at Junction 23 M48 Roundabout and Junction 23A Magor.
2. The proposed highway layout at J23 is required to allow connection between the proposed new motorway, the reclassified M4, the M48 and the B4245 between Undy and Rogiet. The size and layout of the gyratory, including separation of the different arms of the gyratory, have been designed to ensure sufficient capacity based on forecast design year peak hour traffic flows.
3. Matthew Jones (WG1.1.1) explains in section 4.13 and 4.14 of his Proof of Evidence that the junction layouts in Magor/ Undy/ Rogiet area were re-assessed during the development of the Plan between 2013 and 2014. The July 2014 Junction Strategy Report (Document 4.6.4) provides the assessment of junction options considered at the time of publishing the Plan in July 2014. The addition of the connections between the M4/M48/B4245 to improve motorway resilience between Undy and Rogiet necessitated a change to the April 2006 TR111 junction layout and the recommended option arising from this report, option 4, became the layout chosen for the 2014 TR111 Preferred Route.
4. This form of junction is becoming increasingly common on the UK road network and is similar in layout to M4 Junction 24 at Coldra. The complexity of the junction would be considered to be no more so than a standard signalised roundabout, where the driver is presented with a series of opportunities to make a decision. The junction layout would be

complemented with a comprehensive traffic sign and road marking arrangement to ensure successful driver navigation. I do not consider that the junction is 'extremely complicated': it is an appropriate solution to provide the required connections between the various roads at junction 23A which responds to the forecast traffic needs.

- 2.3.2. Several other objectors have proposed further alternative arrangements for the junction arrangement around Magor, Undy and Rogiet, notably alternative route proposal nos. 4 to 11, 18 and 21. Each of these alternatives has been appraised in the Objectors' Suggested Alternatives Report (Document 4.7.2).
- 2.3.3. Further information regarding historical routes and junction layouts considered in the early stages of the Scheme development can be found in Chapter 4 of the ES (Document 2.3.2) and in the documents in Section 4 of the PLI library. Matthew Jones also provides a summary in chapter 3 and 4 of his evidence (WG1.1.1).
- 2.3.4. The key points of appraisal of the Green Route for engineering design are provided in the Objector's Suggested Alternatives Report and which I will summarise below:
- a) The aim of The Plan to provide a B4245/M4/M48 connection would not be provided;
 - b) In the event of a closure of the M48 Severn Bridge, traffic travelling between the M48 and the M4 to the east would need to pass through junction 23A, as the existing situation, perpetuating the delays to local traffic using the A4810 and B4245 around Magor;
 - c) The existing Junction 23A arrangement would be reconstructed to facilitate a dual three lane carriageway in each direction, where presently there are only two lanes each way.
- 2.3.5. The objectors' suggested Alternative 3, the Green Route, would establish a new transport corridor through greenfield farm land, compared to the Scheme which principally follows and widens the existing corridors of the A4810 and the M4.
- 2.3.6. Due to the existing ground topography, where the existing M4 is at a higher level than the land to the south, the Green Route would be

constructed on a significant embankment to the West of Wilcrick Hill. This embankment would be up to 8m high between the B4245 and the existing M4.

- 2.3.7. Whilst the vertical alignment of a new motorway along the Green Route proposal would gradually reduce in level south of the existing M4, the differences in level and the constraints of minimum gradients of the motorway would mean that it would not be close to existing ground level until the point approximately half way between Wilcrick and Bishton. Between here and the tie in to the line of the Scheme south of the A4810, the Green Route would follow a rolling vertical alignment to accommodate the crossings of the constraints of the railway and the A4810, both of which would require the motorway to be set at a level approximately 8m above existing ground level.
- 2.3.8. The existing overbridges forming J23A would be replaced to accommodate a dual 3-lane motorway through the junction, as opposed to the existing dual 2-lane configuration.
- 2.3.9. The Green Route would meet nine scheme objectives as well as the Scheme (1, 2, 5, 7 to 9, 11 to 13) and five objectives less well (3, 4, 6, 10, 14). There is one objective it would not meet, which would also not met by the Scheme (15).
- 2.3.10. The reasons for the Green Route meeting objectives 3, 4, 6, and 14 less well than the Scheme are as follows:
- a) It would reduce accessibility compared to the Scheme due to lack of connection to the B4245 east of Magor-Undy.
 - b) It would follow a new corridor, whereas the Published Scheme more closely follows the existing corridor of the M4 and A4810. This would result in increased severance to the west of Magor.
 - c) It would provide reduced network resilience when the M48 Severn Bridge is closed as traffic would be diverted via J23A
 - d) By 2037 the section of M4 between J23A and J23 would start to experience congestion as traffic from the existing and new M4 converge onto the 3 lane section of motorway.

2.3.11. In my overall opinion, the objectors' Alternative 3, the Green Route, does not fulfill the stated objectives of The Plan as well as the published Scheme and should not be considered further.

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

2.4. Julia Tindale (Land Use, Community and Recreation)

2.4.1. Response to **Points 6, 19, 20 and 24** (States that there will be a massive land take from the area east of Magor with the Published Scheme), (States that there would be no impact upon the village of Magor with the Green Route), (States that it is likely that no properties would have to be demolished with the Green Route) and (States that land take is significantly reduced with the Green Route. The resulting land take will be removed and currently viable farming enterprises would be retained with the Green Route):

1. Chapter 15 of the Environmental Statement (Document 2.3.2) and its Supplements (Documents 2.4.4 and 2.4.14) describes the effects of agricultural land take.
2. Those physical effects on Community and Private Assets including residential properties and Community Land and Facilities in Magor considered in Chapter 15 of the Environmental Statement (Document 2.3.2) and its Supplements (Documents 2.4.4 and 2.4.14), do not appear to apply to the Green Route.
3. It appears likely that no residential properties would need to be demolished with the Green Route, but there may be impacts on commercial land and/or property to the south-west of J23A on the Wales 1 business park.
4. Chapter 15 of the Environmental Statement (Document 2.3.2) and its Supplements (Documents 2.4.4 and 2.4.14) describes the effects of the construction of the new junction at Llanfihangel on farm holdings. Whilst areas of land would be retained as part of farming enterprises at Llanfihangel with the construction of the Green Route, other areas of agricultural land and farming enterprises would be affected by the Green Route to the west of Wilcrick Hill.

5. The Green Route is appraised within the Objectors' Suggested Alternatives Report (Document 4.7.2). It clarifies that with the Green Route there would be reduced permeability to the west of Magor due to a new line of severance between Bishton and Wilcrick.

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

2.5. Mick Rawlings (Cultural Heritage)

2.5.1. Response to **Point 7** (States that the impact on Llanfihangel Rogiet Conservation area would be unacceptable):

1. All impacts on the historic environment are identified in the March 2016 ES (Document 2.3.3) and the September 2016 ES Supplement (Document 2.4.4).
2. The impact on the Conservation Area is a matter for the Inspectors to take into consideration when they are considering the impacts of the Scheme and the overall public benefits.

2.5.2. In response to Point 18 (States that the Green Route is not free of adverse environmental impact), the heritage impact of the Green Route is appraised within the Objectors' Suggested Alternatives Report (Document 4.7.2). This identifies that the Green Route would have no impact on the Llanfihangel Rogiet Conservation Area or the Scheduled standing stone at Undy. It would avoid the need to demolish the Grade II listed Woodland House and would also avoid the known later prehistoric and Roman archaeological site to the west of Magor. The Green Route would have a slightly lower level of physical impact on the registered Gwent Levels historic landscape when compared to the Welsh Government scheme.

2.5.3. However, the Green Route would have an impact on the setting of the Scheduled hillfort at Wilcrick Hill and also on the setting of the Scheduled deserted medieval village just west of Wilcrick Hill. There is the potential for impact on the setting of the Scheduled Bishton Castle motte. There is also the potential for the Green Route to impact on buried archaeological remains (as yet unknown) in the area south of the current M4 as far as the South Wales Main Line railway – this is the transitional land between the higher ground and the drained Levels and is considered to be of high archaeological

potential. The Green Route roundabouts on the existing M48 and B4245 and the associated link road could impact on the settings of the Grade II listed Dewstow House and associated Grade II* Grade II listed structures (grottoes, walls etc.), also the Grade II* Registered Park and Garden Historic of Special Historic Interest at Dewstow House. This part of the Green Route could also impact on buried archaeological remains (as yet unknown).

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

2.6. Bryan Whittaker (Traffic)

2.6.1. Response to **Point 10** (States that the Green Route will utilise a massively under used M48 which probably only carries 10% of the traffic volume that the B4245 currently carries):

1. It is not the case that the M48 only carries around 10% of the traffic volume of the B4245. In 2014, when traffic data was collected for input to the traffic model for this project, the M48 carried a similar amount of traffic as the busiest section of the B4245.

2.6.2. Response to **Point 11** (States that with the Green Route most, if not all, traffic from Caldicot and the surrounding areas will be able to access the motorway network at the proposed M48 roundabout instead of travelling further west to Magor. Traffic flows arising from the east of Magor would be able to access the motorway network quicker and easier using a more simplified interchange with the Green Route):

1. The Published Scheme provides access between the motorway network and the B4245 corridor west of Rogiet, whereas the suggested alternative in the Green Route provides access between the motorway network and the B4245 corridor east of Rogiet.
2. It is therefore not the case that traffic originating in Caldicot and the surrounding areas would need to travel all the way through Magor to J23a in order to access the motorway network if the Published Scheme was constructed. Traffic from Caldicot would instead be able to access the motorway network at J23 immediately west of Rogiet and East of Magor and Undy.

3. Due to the fact that the Green Route does not have an all movements junction connecting the M48 and the M4 in the vicinity of Rogiet, it would generally not be quicker and easier for traffic to access the motorway network with the Green Route.

2.6.3. Response to **Point 12** (States that with the Green Route, traffic from Caldicot and the surrounding areas which currently uses the A48 towards Chepstow to access the M48 are likely to use the proposed M48/B4245 junction, thus reducing traffic impact at Pwllmeyric and Chepstow. The Green Route would allow for a spin-off benefit for Pwllmeyric and St Lawrence roundabout which experiences severe traffic congestion at peak times):

1. It is correct that an access to the motorway network in the vicinity of Rogiet would reduce traffic volumes through the A48/A466 Highbeech roundabout west of Chepstow. However, this spin-off benefit applies equally to the Published Scheme.

2.6.4. Response to **Point 13** (States that the proposed Green Route M48/B4245 junction would reduce traffic impact in Rogiet, Magor and Undy along the B4245. Traffic congestion in Magor will be considerably eased if the proposed junction at Caldicot is adopted with the Green Route):

1. The exact location of the motorway junction connecting to the B4245 influences which traffic from different areas along the B4245 would use it. Whilst positioning the motorway junction further east compared to the Published Scheme may encourage slightly more trips originating in Caldicot to use the junction, it would discourage some trips from Undy and Magor to use it.
2. The Green Route alternative has been modelled using the M4CaN traffic model and compared to the Published Scheme. The model outputs demonstrate that traffic flows on some sections of the B4245 would be higher with the Green Route proposal compared to the Published Scheme. The sections of the B4245 where there would be an increase in traffic volumes are in the eastern part of Rogiet and western part of Caldicot, as well as through Magor.

2.6.5. Response to **Point 15** (States that the proposed Green Route M48/B4245 junction would reduce traffic impact in Rogiet, Magor and Undy along the

B4245. Traffic congestion in Magor will be considerably eased if the proposed junction at Caldicot is adopted with the Green Route):

1. The connection to the B4245 proposed as part of the Published Scheme would provide the same functionality and at the same time would provide a better direct access between the B4245 and the Second Severn Crossing.

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

2.7. Barry Woodman (Construction)

2.7.1. Response to **Points 14, 16 and 22** (States that the proposed Green Route M48/B4245 junction would achieve the objectives without destroying the countryside around Llanfihangel Rogiet and Undy and at considerably less cost), (States that there is no significant land take with the Green Route, whilst the costs of the interchange would be less than 1/10th and would utilise much under used road) and (States that substantial costs savings would be made with the Green Route):

1. We have reviewed the scope of the works required for the above alternative and identified the following principal differences between the suggested alternative route and the proposed Welsh Government scheme:
2. The green Route would require:
 - a) 650,000m³ additional earthworks imported material
 - b) 70,000m² less carriageway pavement construction
 - c) 3 fewer bridges
 - d) Demolition of existing, and reconstruction of wider, overbridges at J23A
 - e) 3 additional retaining walls
 - f) Additional stats diversions
3. Overall the cost of the green route inclusive of risk is estimated to be £51m higher than the Scheme.
4. The Green Route would result in more construction disruption for M4 traffic compared to the Scheme due to the demolition and re-construction

of wider overbridges at J23A and a significant increase in online construction. There would also be greater disruption to traffic using the A4810 and accessing Magor. There would be increased impact on the Tata steelworks operations and increased construction through contaminated land. The reduction in cut and increase in fill requirements would increase reliance on the import of fill and borrowed material. A high level assessment of the construction programme has indicated that the Green Route would be likely to take 6 months longer to build than the Scheme, due to the phasing of works at J23A and works through the Tata steelworks site.

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

2.8. Stephen Bussell (Economics)

2.8.1. Response to **Point 17** (States that with the Green Route there would be no adverse impact on the Magor Service area and the surrounding businesses. The Green Route would ensure the future of Magor Service area and businesses located at the Wales 1 [sic] business park):

1. Maintaining the existing J23A would be of benefit to Magor Service Area as the Welsh Government's proposals results in less direct access to the Service Area for users of the new motorway. Following the Welsh Government's decision to include an eastbound off-slip road to improve access between the new motorway and J23, the primary benefit of the Green Route would be for customers of the Service Area travelling in a westbound direction. It should be noted, however, that the Welsh Government's position is that the Service Area would remain commercially viable in the future with the proposed Scheme in place.
2. In relation to other businesses and the Wales One business park, relative to the Published Scheme, the Green Route would provide improved access for traffic travelling eastbound from the business park towards the Second Severn Crossing because users would not be required to re-join the motorway via the proposed signalised Magor Junction. For westbound trips from the Wales One business park, users would be afforded more direct access to the new motorway. However, the

improved access to the Wales One business park would need to be weighed against the fact that the Green Route provides slightly reduced travel time savings for through traffic using the new motorway and therefore the published route is likely to be preferable for businesses located at employment sites elsewhere in Newport and further west in South Wales. This is reflected in the respective BCRs which are 1.49 for the Green Route and 1.65 for the Published Scheme.

- 2.8.1. I provide evidence on economic appraisal, including the BCR calculations in my Proof of Evidence (WG1.3.1).

2.9. Peter Ireland (Environment)

- 2.9.1. Response to **Point 18** (States that the Green route is not free of adverse environmental impact but the impact on the Gwent Levels SSSI will be considerably reduced. The impact on the SSSI would be almost negligible with the Green Route):

1. Biodiversity impacts of the Green Route are considered within the Objectors' Suggested Alternatives Report (Document 4.7.2). It clarifies that with the Green Route, whilst the three most westerly SSSIs would continue to be affected to the same degree, there would be a reduced impact on the Gwent Levels – Redwick and Llandeenny SSSI. There would be hedgerow loss within agricultural land to the west of Magor. The ecology surveys carried out for the published Scheme did not include the majority of the Green Route. However, protected species likely to be present include dormouse, badger, bats and birds (including Cetti's warbler).
2. The effect of the Green Route on the Gwent Levels – Redwick and Llandeenny SSSI would be considerably reduced compared to the published Scheme, but would not be eliminated entirely as there would be minor incursions into the SSSI north of the crossing of the main railway line and east of the point where the Green Route alignment would rejoin the published Scheme east of Tata Steel. The effect on the three other Gwent Levels SSSIs affected by the published Scheme would remain the same as the published Scheme.

3. It is also the case that the Green Route would introduce a new corridor of ecological disturbance/severance west of Wilcrick Hill whereas the published scheme would have the advantage of largely follow the existing corridor of the M4 and A4810 in the section to the north and west of Magor.
4. In my opinion, on the basis of the information currently available, the comparison between the Green Route and the published Scheme is finely balanced in terms of biodiversity. The Green Route affects less of the Gwent Levels - Redwick and Llandeenny SSSI so in that respect is preferable, but it introduces a new corridor of disturbance, so in that respect is more detrimental. Further survey work would be needed to determine the implications of the Green Route so that judgements could be made regarding its impact on biodiversity, but on information currently available it is not necessarily the case that the Green Route is as ecologically beneficial to the extent suggested by its supporters.

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

2.10. Matthew Jones (Chief Witness)

2.10.1. Response to **Points 25, 26, 27, 28 and 29** (States that with the Green Route, the proposed M48/B4245 junction at Caldicot ties in neatly with Monmouthshire County Council's proposed local road improvement scheme and access to the Severn Tunnel Junction (STJ) rail station, and as such would improve access to that critical and important rail interchange), (States that the Green Route would have significantly more impact on improving the Severn Tunnel Junction rail station than the proposed Published Scheme J23), (States that all objections based on the Published Scheme route around Magor and the new J23A will be resolved with the Green Route), (States that the Green Route acknowledges the need for an alternative route to the existing M4 but it achieves this without compromising the built-up area of Magor Village and the surrounding area) and (States that the Green Route removes all threats to properties in and surrounding Magor and prevents any further blight on that community):

1. The proposed M4/M48/B4245 junction arrangement would improve access to the surrounding area of Magor, Undy, Rogiet and Caldicot, including to Severn Tunnel Junction station. In developing the proposals the project team have liaised with officials from Monmouthshire County Council, who are responsible for access and parking in this area.
2. Paragraphs 23.10-23.13 of Matthew Jones' Proof of Evidence (WG1.1.1) outline the statutory processes associated with suggested alternatives to the Published Scheme.
3. The key points associated with the Green Route are considered to be:
 - a) Improved access to Magor Motorway Rest Area.
 - b) Reduced impact on the Gwent Levels SSSIs.
 - c) Slightly reduced impact on the registered historic landscape of the Gwent Levels and avoids the need to demolish the Grade II listed building at Magor.
 - d) No impact on Llanfihangel Rogiet Conservation Area and on Scheduled standing stone at Undy,
 - e) Increased cost, resulting primarily from additional fill requirements.
 - f) Increased impact on the Tata steelworks operations and increased contaminated land risks.
 - g) Reduced user benefits as a result of increased distance and travel times for users.
 - h) Increased traffic on the B4245 through Magor, particularly at the western end.
 - i) Reduced permeability to the west of Magor due to a new line of severance.
 - j) By 2037 the section of M4 between J23A and J23 would start to experience congestion as traffic from the existing and new M4 converge onto the 3 lane section of motorway.

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

2.11. John Davies (Sustainable Development)

2.11.1. Response to **Point 4** (Concerned that with the Published Scheme, Magor motorway services will move and there will be pressure for further development around the new junction):

1. The response to Point 17 by Mr Stephen Bussell confirms the Welsh Government's position that the Service Area at Magor would remain commercially viable in the future with the proposed Scheme in place. The Scheme would not lead to the closure or relocation of the Services, which would continue to operate successfully. Engagement with Roadchef and Rontec is ongoing to help address any remaining concerns.
2. Future proposals to develop areas of land outside that included in the draft Compulsory Purchase Order are not a matter for this 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.

2.11.2. Response to **Point 23** (States that the Green Route would have significantly less environmental impact than the proposed Published Scheme junction which is inconsistent with the Welsh Government's sustainable development duty, climate change commitments and aspirations):

1. Comparing the Green Route with the proposed Scheme the following points emerge from the responses of the other witnesses and the Report on Alternatives.
 - a) There would be no impact on the Llanfihangel Rogiet Conservation Area or the Undy Standing Stone Scheduled Ancient Monument; demolition of the Grade II listed Woodland House would be avoided; and there would be less of an impact on the Gwent Levels Landscape of Outstanding Historic Interest compared with the proposed Scheme. However, the Green Route would have the potential to impact on the settings of three Scheduled Ancient Monuments; on the setting of the Grade II listed Dewstow House and garden structures; and on the

setting of the Grade II* Registered Park and Garden of Special Historic Interest. There would be the potential to affect buried archaeological remains in an area of high potential.

- b) The Green Route would create a new road corridor through the open countryside whilst the proposed Scheme follows an existing road corridor; much of the road in this new corridor would be on embankment, dominating the landscape and the settlements of Bishton and Wilcrick.
- c) The Green Route would avoid the need to construct the new Junction 23 as in the proposed Scheme, but it would require significant new highway infrastructure in the open countryside where it merges with the existing M4 west of Magor Services and at the junction between Rogiet and Caldicot.
- d) Whilst the Green Route would have less impact on the Redwick and Llandeenny SSSI compared with the proposed Scheme, there would be loss of hedgerows west of Magor and protected species are likely to be present; there would be a new corridor of ecological disturbance/severance west of Wilcrick Hill, whereas the proposed Scheme follows an existing road corridor. Whilst I have explained in my proof (WG 1.23.1 paras 85-6) how the Welsh Government has met its legal duties in respect of biodiversity in selecting and developing the proposed Scheme, further survey work would be needed on the implications of the Green Route to enable judgements to be made regarding its impact on biodiversity.
- e) The Green Route would involve increased construction on flood plains west of Wilcrick and at St Brides Brook, with a potential increase in flood risk due to loss of flood plain storage and conveyance.
- f) There would be a risk of impact on the operations of Tata Steel and increased construction on areas of potential land contamination through Llanwern Steelworks.
- g) With regard to climate change, the Green Route would result in increased greenhouse gas emissions because of the greater length (0.95 km) of the route and hence would not perform as well as the

preferred route in terms of tackling climate change and the Welsh Government's duties under the Environment (Wales) Act 2016. For the same reason the Green Route would fail to contribute to the well-being goals of the Well-Being of Future Generations (Wales) Act 2015 (the WFG Act) or the Welsh Government's well-being objectives, in contrast with the proposed Scheme.

- h) Compared with the proposed Scheme the Green Route would require more earth works for embankments and some 650,000m³ additional imported material. This would be contrary to the Prosperous Wales goal of the 2015 WFG Act, which seeks to use resources efficiently.
 - i) Dealing with the requirements of agriculture, although the removal of the new Junction 23 would have benefits, there would be increased severance west of Magor, with loss of high quality agricultural land and potential impact on the viability of farm holdings in the area. Without more detailed information on the design of the Green Route and hence the land take it is not possible to reach firm conclusions with regard to the impact on agriculture. Whilst the Green Route would reduce the impact on some farm holdings it would impact on other holdings west of Magor that the proposed Scheme would not affect. On the available information it is not possible to conclude that the Green Route would be more beneficial than the proposed Scheme in respect of agriculture.
2. On the basis of this evidence it is incorrect to claim that the Green Route would have significantly less environmental impact than the proposed Scheme. The claimed advantages in terms of landscape and visual impact are offset by adverse impacts elsewhere, since major road infrastructure works are simply moved to other locations and the new Green Route road corridor would cross open countryside not affected by the proposed Scheme. Similarly, the benefits in terms of reduced impact on heritage assets and archaeological remains would be nullified by the potential for impacts elsewhere. The benefit of reduced impact on the SSSI is offset by the creation of a new corridor of potential ecological disturbance, loss of hedgerows and the likely presence of protected species along the new road corridor of the Green Route. Whilst some

farm holdings would no longer be affected, there would be increased severance, loss of high quality agricultural land and potential impact on the viability of farm holdings west of Magor. Furthermore, any claimed benefits must to be weighed against the land contamination issues and increased flood risk; the need for additional imported fill; and increased greenhouse gas emissions. Whilst the Green Route would improve access to Magor services, there would be reduced user benefits because of smaller time savings compared with the proposed Scheme and there would be congestion between Junctions 23 and 23A by 2037.

3. On balance I conclude that the Green Route would have greater overall environmental impact than the proposed Scheme and would fail to deal as efficiently as the proposed Scheme with future traffic flows. It would fail to meet the Welsh Government's duties in respect of greenhouse gas emissions and would not contribute to the well-being goals of the WFG Act and the Welsh Government's well-being objectives to the same extent as the proposed Scheme.

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