

1. Thank you for the opportunity to respond to the National Assembly for Wales Environment and Sustainability Committee review of the M4 Corridor Enhancement Measures. We are pleased to provide our views on the process and proposals to date.
2. Sewta is the alliance of local authorities charged with developing transport policy and delivering transport projects on behalf of the 10 local authorities in South East Wales and their partners, both in the transport industry and in organisations representing users' interests.
3. Sewta's membership includes the local authorities of Blaenau Gwent, Bridgend, Caerphilly, Cardiff, Merthyr Tydfil, Monmouthshire, Newport, Rhondda Cynon Taff, Torfaen and the Vale of Glamorgan. Partners are the Confederation of Passenger Transport, Arriva Trains Wales, Network Rail, Bus Users UK, Passenger Focus and Sustrans. Sewta works closely with the Welsh Government.
4. The M4 Motorway is a key element of the national and regional transport network, with a significant influence on travel patterns and economic performance. Accordingly, Sewta places great importance on engagement in the process to review existing provision and address known issues.
5. For the purposes of our response we have identified two distinct elements in the M4 proposals consultation and engagement processes:
 - A. Original schemes consultation June and July 2012 (four highway options comprising, widening existing M4, two options to revise the Southern Distributor Road, and a new dual carriage way to the south of Newport, with common public transport elements); and
 - B. Revised Scheme published 23rd September 2013 (3 highway options to the south of Newport)
6. The reason for this distinction is that there are significant differences each element in terms of Sewta engagement and the proposals themselves.

The Original Scheme

7. Sewta was an active member of the M4 CEM consultation group, attending a series of meetings facilitated by the consultants. Initial proposals did not include adequate regard to the role and potential of public transport in relieving congestion at key junctions and facilitating regional movements. Increased use of alternative modes would reduce pressure on existing assets and assist achievement of environmental targets. Sewta considered a holistic approach to consider all modes of transport along the corridor an essential element of the M4 CEM project scope.

8. Following discussions, further work was undertaken by the consultants to identify a series of public transport measures, which were included in the public consultation exercise.
9. There was also a concern that some of the highway options as proposed would have a negative impact on the transport network in Newport itself. In particular the closure of some junctions, whilst assisting the flow of traffic on the line of the M4 itself, would increase congestion on the approaches. There are a number of locations already designated Air Quality Management Areas, and there was a concern existing air quality issues would be exacerbated.
10. Following approval at the July 2012 Sewta Board meeting, a written response was submitted to the first formal M4 CEM consultation, which outlined a number of concerns (full response contained in Appendix A). These are summarised as:
 - a. The body of information available as part of the consultation constrained the conclusiveness of the response.
 - b. Data currency – much of the data was several years old, and was unlikely to reflect current trends;
 - c. Scope of Modelling – limited information available on the implications of the alternative options proposed on transport networks beyond the boundaries of the study area;
 - d. Option Appraisal – key concerns regarding the accuracy of the conclusions reached;
 - e. Appraisal of Public Transport Alternatives – the study made only limited use of a wide body of available information, which would have generated a more robust appraisal of the contribution achievable from public transport investment.
11. The Welsh Government then undertook further public consultation regarding the Strategic Environmental Assessment, Health Impact Assessment and Equality Impact Assessments.
12. Following Sewta Board approval, a further response was submitted to the Welsh Government consultants (Appendix B). In summary, key concerns were:
 - a. The geographical scope doesn't fully consider the regional impact of measures
 - b. The contribution of existing public transport assets to achieve scheme outcomes was not adequately considered
 - c. Proposals didn't take account of the requirement to provide appropriate infrastructure to support and facilitate behavioural change
 - d. The impact appraisal contained a number of anomalies
13. Each of our responses outlines a number of concerns regarding the scope, data and appraisal of the scheme.

B – Current Scheme Proposals

14. Following consideration of the original consultation proposals, revised proposals have been developed. These were publically released for consultation on the 23rd September 2013, with Sewta being invited to respond.
15. Sewta has not been actively engaged in the development of these revised proposals; therefore this is the first opportunity to fully consider them. The timescale is commensurate with the cycle of Sewta Board and Directorate meetings; however there is a considerable amount of information to be considered, which presents a challenge to fully appraise the proposals in the timescale.
16. Whilst our full response is being prepared, there is an initial concern that the separation of the public transport elements from the M4 project and removes consultation upon it, removes the commitment of the original proposals to provide additional public transport provision to reduce dependence on the private car and contribute to Welsh Government and Sewta climate change objectives. We will provide a copy of our formal response, once available.
17. Given the substantial revision to the proposed scheme and the removal of public transport elements, our previous consultation response represents the most up-to-date assessment in the public domain of the role of non-highway options to delivering scheme outcomes. It is disappointing that, in the current consultation, consultees are not able to offer views on the full range of transport alternatives available.
18. In summary, whilst Sewta fully supports measures to improve the transport network to support economic development and social inclusion, there is a concern that the current proposals underplay the potential of alternative modes to contribute towards these objectives. It is therefore very difficult for consultees to offer rounded advice on the most appropriate mix of transport investment to achieve economic and environmental objectives while delivering value for money.

Appendix A

M4 Corridor Enhancement Measures Programme – Consultation

Sewta Response

About Sewta

1. **Sewta** is the alliance of local authorities charged with developing transport policy and delivering transport projects on behalf of the 10 local authorities in South East Wales and their partners, both in the transport industry and in organisations representing users' interests.
2. Sewta's membership includes the local authorities of Blaenau Gwent, Bridgend, Caerphilly, Cardiff, Merthyr Tydfil, Monmouthshire, Newport, Rhondda Cynon Taff, Torfaen and the Vale of Glamorgan. Partners are the Confederation of Passenger Transport, Arriva Trains Wales, Network Rail, Bus Users UK, Passenger Focus and Sustrans. **Sewta** works closely with the Welsh Government.
3. Sewta welcomes the opportunity to respond to the Welsh Government's consultation on the M4 CEM Programme. Sewta's response draws heavily on the Regional Transport Plan, which is the statutory Transport Plan for South East Wales. It was approved by Sewta in March 2010, and has been endorsed by the Welsh Government.

Sewta's Consultation Response

4. Having been prepared by the regional transport consortium, this response is driven primarily from a regional perspective. Individual authorities will be responding from their own perspectives, and will address concerns of a more local nature. Every effort has been made to respond fully to the consultation questions. However, the body of information available as part of this consultation has constrained the conclusiveness of this response. These issues are dealt with in more detail in the body of the response. Key concerns include the following:
 1. Data currency – much of the data is several years old, and is unlikely to reflect current trends;
 2. Scope of Modelling – there is little information available on the implications of the alternative options proposed on transport networks beyond the boundaries of the study area;
 3. Option Appraisal – there are key concerns about the accuracy of the conclusions reached;
 4. Appraisal of Public Transport Alternatives – the study has made only limited use of a wide body of available information, which would have generated a more robust appraisal of the contribution achievable from public transport investment.

Consultation Questions

Question 1a: In your opinion, which of the transport related problems listed are the most important for the Welsh Government to address with the M4 CEM programme?

Question 1b: Would you like to make any other comments on the traffic related problems which should be addressed by the M4 CEM programme?

5. The consultation document lists 17 transport-related problems. It invites respondents to prioritise a maximum of four. Within the list of problems there are some general issues that apply to the whole corridor, whilst some are location specific. Those considered to be most pertinent at a regional level (shown in bold below) are identified in this response for prioritisation:

Capacity

1. **A greater volume of traffic uses the M4 around Newport than it was designed to accommodate, resulting in regular congestion at peak times over extended periods.**
2. The M4 around Newport is used as a convenient cross town connection for local traffic, due to insufficient local road capacity.
3. HGVs do not operate efficiently on the motorway around Newport.
4. There is insufficient capacity through some of the junctions (e.g. 3 lane capacity drops to 2 lane capacity).
5. The 2-lane Brynglas tunnels are a major capacity constraint.
6. The M4 cannot cope with increased traffic from new developments.

Resilience

7. Difficulties maintaining adequate traffic flows on the M4 and alternative highway routes at times of temporary disruption; alternative routes are not able to cope with M4 traffic.
8. The road and rail transport system in and around the M4 corridor is at increasing risk of disruption due to extreme weather events.
9. **When there are problems on the M4, there is severe disruption and congestion on the local and regional highway network.**
10. The M4 requires essential major maintenance within the next 5-10 years; this will involve prolonged lane and speed restrictions, thus increasing congestion problems.
11. There is insufficient advance information to inform travel decisions when there is a problem on the M4.

Safety

12. The current accident rates on the M4 between Magor and Castleton are higher than average for UK motorways.
13. The existing M4 is an inadequate standard compared to modern design standards.
14. Some people's driving behaviour leads to increased accidents (e.g. speeding, lane hogging, unlicensed drivers).

Sustainable Development

15. **There is a lack of adequate sustainable integrated transport alternatives for existing road users.**
16. Traffic noise from the motorway and air quality is a problem for local residents in certain areas.
17. **The existing transport network acts as a constraint to economic growth and adversely impacts the current economy.**

Key Problems

6. The key problems are clearly the congestion, safety and maintenance issues of the current M4 around Newport. The main underlying cause of the overload of the M4 is that not enough journeys are made using alternatives. For many existing road users along this motorway section,

there is a current lack of adequate sustainable integrated transport alternatives. Many of the journeys are local journeys, and these would be the journeys with the greatest potential for modal shift were adequate alternatives available.

Rail Alternatives

7. In terms of lack of alternatives, there is in particular a lack of convenient accessibility to the rail network for local journeys in proximity to Newport. While the rail lines are in place, there are few stations on the network around Newport, and the frequency and convenience of services to cater for local journeys is restricted. In the case of the line from the Ebbw Valley to Newport, there are no services at all. This limited sub-regional network of rail services linking the journey to work area with Newport, puts great pressure on the M4 for many local journeys. The success of the Ebbw Valley line to Cardiff illustrates the potential to remove car journeys from critical areas of the highway network where an attractive alternative is provided.

The Local and Regional Highway Network

8. The consultation document highlights the proliferation of congestion issues that affect Junctions 26, 27 and 28. These cause considerable impacts on strategic access routes, including the A48 from St Mellons, the A468 from Caerphilly, the A467 / B4591 from Cross Keys, the A4051 from Cwmbran and the A4042 from Pontypool. However, congestion at these junctions is also a major cause of congestion on the M4 itself. Local and regional traffic is a major contributor to congestion on the M4, but equally, congestion on the M4 is a major contributor to congestion on the local and regional road network. This underlines the limitations of seeking to address the problems of the M4 without equally seeking to tackle issues on the adjoining network. There is a serious risk that enhancing motorway capacity without addressing local network issues will exacerbate existing problems on the local network.

Bus Alternatives

9. These concerns and risks are particularly pertinent to the bus network. Congestion on the motorway and at its junctions has a seriously adverse effect on journey times and reliability for bus passengers, and restrains the attractiveness of the bus as a modal alternative for local and regional journeys. The bus corridors from Cardiff, Cross Keys and Cwmbran are recognised within the Regional Transport Plan as strategic corridors for bus priority, and any measures proposed through the M4 CEM programme affecting junctions 26, 27 & 28, and adjoining junctions on the local and regional road network, need to be able to demonstrate their benefits for bus users.

Smarter Choices

10. Given the extent of local journeys on the M4, measures like the completion of the strategic cycle network for Newport, the introduction of personalised travel planning, and the inclusion of Newport within the Sustainable Travel Centres programme, can all contribute to increasing the availability of sustainable travel alternatives to the car. It is surprising that the issue of the carbon emissions generated by users of the M4 is not identified as one of the strategic problems which the programme needs to address, given the recognition of carbon emissions as one of the strategic priorities within the Wales Transport Strategy.

Sewta Metro Plus

11. The facilitation of economic growth is a key function of the strategic transport network. The creation of a networked City Region which harnesses the economic potential of the M4 corridor

requires accessibility throughout the region. An effective M4 CEM Programme has the potential to stimulate the economic growth of the region. The development of public transport alternatives, including the Sewta Metro Plus concept, will help to reduce dependency on the M4, whilst also facilitating economic development. It will be essential that the Metro proposition embraces the whole Newport journey to work area, in order to play its full role in helping to alleviate the problems of the M4.

Traffic generated by New Developments

12. A key contributor to the levels of existing congestion on the M4 has been the extent of new high intensity development which has taken place close to motorway junctions, particularly in generating local journeys. It will be essential as part of the M4 CEM programme that measures are taken to provide strategic guidance to local planning authorities which inhibits further developments of this nature from gaining planning consent.

The Wider Strategic Highway Network

13. While the focus of the programme is the M4 between Magor and Castleton, there is a concern that the impacts of the enhanced traffic flows achieved by the proposed highway options, on highway networks beyond this length of the motorway, do not appear to have been modelled or evaluated. As well as the principal road network around Newport, there are also concerns at the potential impact on strategic junctions further east and west. Key issues will be the impact of increased flows on the 2-lane section at Jct 23 Magor, on J32, Coryton, and on the junctions on the A48 in Cardiff. Capacity improvements between Magor and Castleton are likely to increase the rate at which vehicles arrive at these junctions, exacerbating the 'bottleneck' effect, and constraining the overall benefits of the proposed enhancement measures.

Data Currency

14. The Sewta response is based on the information contained within the Consultation Document. However, we have fundamental concerns that the data utilised is five years old, and therefore is an unreliable basis on which to evaluate alternative options. It does not take account of the impact of M4 Making Better Use measures (including the Managed Motorway between junctions 24 and 28) or the impact of increasing fuel prices and other factors on rates of road traffic growth. There is a pressing need for an update on the current position regarding key issues such as congestion, journey time / reliability and safety, before any decisions are taken to commit funding.

Question 2a: In your opinion, which of the goals listed are the most important for the Welsh Government to achieve with the M4 CEM Programme?

Question 2b: Would you like to make any other comments on the goals of the M4 CEM Programme?

15. The consultation document lists 15 goals; a maximum of four should be prioritised. Those considered to be most pertinent at a regional level (shown in bold below) are identified in this response for prioritisation:

1. Safer, easier and more reliable travel east-west in South Wales.
2. **Improved transport connections within Wales and to England, the Republic of Ireland and the rest of Europe on all modes on the international transport network.**
3. **More effective and integrated use of alternatives to the M4, including other parts of the transport network and other modes of transport, for local and strategic journeys around Newport.**
4. Best possible use of the existing M4, local road network and other transport networks.
5. More reliable journey times along the M4 Corridor.
6. **Increased level of choice for all people making journeys within the transport corridor by all modes between Magor and Castleton, commensurate with demand for alternatives.**
7. Improved safety on the M4 Corridor between Magor and Castleton.
8. Improved air quality in areas next to the M4 around Newport.
9. Reduced disturbance to people from high noise levels, from all transport modes and traffic within the M4 Corridor.
10. Reduced greenhouse gas emissions per vehicle and/or person kilometre.
11. Improved travel experience into South Wales along the M4 Corridor.
12. An M4 attractive for strategic journeys that discourages local traffic use.
13. Improved traffic management in and around Newport on the M4 Corridor.
14. **Easier access to local key services and residential and commercial centres.**
15. A cultural shift in travel behaviour towards more sustainable choices.

Improved Strategic Transport Connections

16. The goals of the M4 CEM Programme are generally aligned with those of the Sewta RTP and, subject to the comments below, are broadly supported. Given the strategic location of this section of the M4 Corridor, it has a critical part to play in improving strategic connectivity for the majority of the population of Wales. There is a need to link the goals more explicitly, however, to the social, economic and environmental goals of the Wales Transport Strategy.

Sustainable Alternatives

17. As the key underlying problem is a lack of sustainable alternatives, primary goals should focus on more effective availability and use of such alternatives. The M4 would then be able to cope better with its primary intended function of providing long-distance strategic connectivity.

Access to Services

18. Better access to local vital services, and especially centres of key settlements, is a core objective of the Wales Spatial Plan and the Regional Transport Plan. Given the scope of the M4 CEM programme, improving accessibility to Newport City Centre needs to be seen as a key strategic goal.

Discouraging Local Traffic on the M4.

19. In respect of goal 12, there is a concern that the local highway network already experiences significant congestion. Accordingly, the removal of 'local' movements from the M4 would be detrimental to the local highway network without appropriate mitigation measures and effective alternatives.

Reduced Greenhouse Gas Emissions

20. There are major concerns at the way in which goal 10 is defined. At a time when organisations are being pressed to profoundly reduce absolute levels of greenhouse gas emissions, a goal of reducing them per vehicle or per person kilometre, could see options complying with that goal while substantially increasing absolute levels of emissions, as a result of increased traffic flows. The goal needs to be redefined as “Reduced greenhouse gas emissions,” and options need to be evaluated in terms of their compliance with this goal, or the extent to which they fail to comply. A goal thus defined should be one of the top priorities for the programme.

Strategic Fit

21. It is not clear from the consultation document, how the proposed goals fit with higher order strategic goals. It would therefore be helpful if the relationship between the proposed goals and the Wales Transport Strategy’s outcomes and key themes, the Wales Spatial Plan themes, and the WelTAG objectives is made more explicit. This could be captured in the form of policy linkage tables.

Question 3a: Which of the public transport measures listed do you think would make the best contribution to relieving traffic on the M4? (Select all that apply, suggested priorities highlighted)

Question 3b: To what extent do you think the public transport measure(s) you have selected will address the problems and achieve the goals you have chosen?

Consultation Document Public Transport Proposals

22. The consultation document includes the provision of a package of public transport measures, worth £300m of capital investment, and a further £200-300m in ongoing support over 60 years. These are:

- Additional mainline train services between Swansea, Cardiff, Newport and Bristol;
- Additional train services on local routes;
- More stations with park and ride facilities;
- More bus/train connecting services;
- Additional express bus/coach services between Cardiff, Newport and Bristol;
- Additional local bus services around and across Newport.

23. The document advises that all that apply should be identified. Clearly all of these could make a contribution to relieving traffic on the M4. Furthermore, if these measures were implemented together as a package then their effect would be much greater than for any one measure on its own. However, it is evident that the range of measures evaluated is limited and is indicative only, and the level of evaluation and information provided on each element is superficial. Neither the assessment of the package costs nor of its benefits is robust, and as a result any comments upon it will be of limited value. Accordingly, it is not possible to assess the merits of the public transport proposals against those of the highway infrastructure proposals. However, it is difficult to understand how the package of public transport measures is assessed, in the appraisal of options, as making a lesser contribution to the effective use of alternatives than that of two of the highway options.

24. The proposed package of public transport measures misses the opportunity to significantly enhance the regional public transport network, which will assist better utilisation of existing assets. It is noted that the public transport measures is described as outside current funding commitments. An integrated package of measures is needed for the public transport measures to provide a credible set of alternative options for journeys.

Public Transport Modal Share

25. The consultation document indicates that a review of the public transport investment package set out in para 21 above concluded that it could reduce traffic on the M4 around Newport by about 3%, and a modal share increase for public transport from 7% to 11%. Accordingly, it argues that the investment in public transport could not alone achieve the goals of the M4 programme.

26. This is difficult to accept, given the indicative nature of the package. With the public transport modal share experienced in other comparable city-regions, it would be possible for a public transport network such as that proposed in the Regional Transport Plan and the Regional Rail Strategy, and captured in the Metro proposals, including electrification, to lead to a step change in behaviour, contributing more substantially to the M4 CEM Programme goals.

Comprehensive Public Transport Alternatives

27. Overall, while the consultation document makes reference to electrification of the Great Western Mainline and the Valley Lines network, and existing National Transport Plan aspirations, there is a strong case for a more comprehensive package of public transport alternatives to be considered. While these will also contribute to a set of regional transport planning objectives which are wider than those of the M4 CEM Programme, there is the potential to achieve better value for money by taking an approach which integrates regional and M4 CEM programmes.

Regional Public Transport Proposals

28. The Regional / Metro public transport proposals, which should be considered in terms of their potential collectively to play a major role in achieving the goals of the M4 CEM Programme, include:

- Strategic bus priority corridors on the routes from Cardiff, Blackwood, Newbridge and Pontypool into Newport;
- A new bus interchange in Newport;
- New rail services from Ebbw Vale and Abertillery into Newport,
- Enhanced rail frequencies from Abergavenny, Chepstow, and Bristol into Newport.
- New rail stations at St Mellons, Coedkernew, Ebbw Vale Town, Crumlin, Pye Corner, Caerleon and Llanwern, mostly with park & rides
- New rail park & ride schemes at existing stations at Abergavenny, Pontypool, Chepstow and Severn Tunnel Junction
- A fully electrified rail network
- Faster journey times, full timetable and ticketing integration, and better information, to enable seamless travel from the point of view of the passenger.

Public Transport Deliverability

29. Many of these proposals have advanced well beyond concept and feasibility study stages, to include business case development, preliminary design and public consultation. Their costs, benefits and deliverability are generally well understood. Some schemes are already within funding programmes, and others in implementation. Some will be fundable through external

funding programmes. It is disappointing that this level of knowledge has not been fully accessed to provide a meaningful public transport package for evaluation as part of this programme.

Question 4a – 4d: To what extent do you think Highway Infrastructure Options A, B, C and D will address the problems and achieve the goals you have chosen?

Highway Option A

30. Highway Option A will provide an additional crossing of the River Usk, resulting in substantial additional highway network capacity and resilience. The additional capacity is greater than in options B and C, both of which would utilise the existing A48 Bridge. The estimated cost of this option is £830m.

31. In terms of providing improved long-distance connectivity this option would clearly have a major positive effect, especially if (as it appears in the consultation document) the new high quality road can be accessed at junctions 23 and 29 only. The assumption of no intermediate junctions may, however, be unrealistic, and these would add substantially to the costs.

32. The impact on local and regional accessibility from this option needs further assessment. There are substantial capacity issues around junctions 26-28 and along the roads leading to these junctions, leading to congestion and negative effects on the bus system and the local environment. There is a concern that Option A, without an effective public transport package, would have limited benefit for these issues, although it is likely that some of the junction congestion currently experienced around Newport would migrate westward to junctions around Cardiff. It is also noted that the route would sever existing and proposed cycle routes, and mitigation measures would be needed.

33. Implementation of Option A may offer the opportunity to implement bus priority measures in association with a fundamental review of the role of the existing M4. However, there is no evidence in the consultation document that these potential benefits have been considered in the evaluation.

34. Overall, the road user benefits arising from Option A in providing extra road capacity will need to be evaluated against the Wales Transport Strategy key outcomes and the Sewta RTP objectives, as it has the potential to lead to a modal shift away from sustainable modes. There would be a need for countervailing measures promoting sustainable transport.

35. It is noted that the WelTAG Appraisal of Option A assesses this scheme as having a neutral impact on greenhouse gas emissions. As with Options C and D, the statement in the appraisal that “it is not clear whether the additional road capacity would lead to an overall increase in emissions” is highly questionable. However, the estimated neutral impact arises from the inappropriate indicator used (see para 19 above). It is difficult to accept that this option would have an equivalent neutral impact on greenhouse gas emissions as Options B, C and D. The WelTAG appraisal needs to be revisited.

Highway Option B

36. Highway Option B would provide at-grade junction improvements along the existing Newport Southern Distributor Road (A48). The estimated cost of this option is £45m. While it would

improve the performance of the corridor in times of severe problems on the existing M4, the signalisation of these junctions will not attract through traffic off the M4 or movements that join the motorway along junctions 25-28. Therefore this option is likely to have the least impact on achieving the broader goals and aims of the project.

37. Furthermore, there is a concern that the implementation of at-grade measures to prioritise traffic on the A48 would be detrimental to local movements into the centre of Newport from the south and east, including cycleway links, and would increase severance effects. In order to avoid adverse effects on the reliability of local bus services that use these junctions, suitable bus priority measures would need to be included.

38. The requirement to utilise junctions 24 and 28 will add pressure on these roundabouts, which are already heavily congested. The consultation document does not appear to show any enhancements to these junctions, so it is important to understand what mitigation measures will be employed, including measures to improve bus journey times and reliability, as these roundabouts are used by a number of regional bus services.

39. There are a number of travel generators located on the east side of the SDR (including a number of schools and retail facilities). Given the predicted increase in vehicle flows, it would be imperative to provide safe routes to and from these facilities.

40. It is difficult to accept that this option would have an equivalent neutral impact on greenhouse gas emissions as Options A, C and D.

Highway Option C

41. Highway Option C is generally similar to option B, but with the provision of grade separated junctions. The estimated cost is £300m. In general, the route related issues identified under Option B will also apply to Option C.

42. Of the two, Option C is a better option in terms of providing resilience and capacity improvement for through traffic as the grade separation will provide a more attractive route for strategic traffic. There is a concern, however, that these benefits will be constrained by the capacity of key interchanges at Junctions 28 and 24 without their modification, which would need to include bus priority measures.

43. A further concern regarding this option is the impact of the grade separation on the local environment and transport network. It has the potential for adverse implications for adjoining communities. There would also be a need for the revised junction arrangements to provide bus priority, cycleway linkages and safer pedestrian routes to mitigate potential increases in traffic.

44. As the option does provide some more substantial additional highway capacity, the concerns outlined in Option A (namely that these will lead to increases in road traffic without substantial mitigation measures) also apply.

45. As with Options A and D, the statement in the appraisal that “it is not clear whether the additional road capacity would lead to an overall increase in emissions” is highly questionable. It

is difficult to accept that this option would have an equivalent neutral impact on greenhouse gas emissions as Options A, B and D.

Highway Option D

46. Option D proposes the provision of a dual 4-lane motorway between junctions 24 and 29, along the existing M4 route. The estimated cost is £550m. This will provide a substantial increase in capacity along the current route and remove the current bottleneck at the Brynglas Tunnels, by providing an additional tunnel.

47. The main drawback of this option is that the additional capacity of the M4 would lead to additional pressure on the routes leading to the motorway (i.e. A48, A468, A467, B4591, A4051 and A4042) – and these are already suffering from congestion and negative environmental effects. Without expensive mitigation measures it is likely that congestion, noise, air pollution, etc will increase substantially along the M4 corridor and the routes leading to it. The reliability of the local / regional bus network would also require substantial bus priority investment.

48. As with Option A, Option D would have a clear positive effect in terms of providing improved long-distance connectivity. Also as with Option A, the additional highway capacity will lead to a sustained overall increase in traffic, and knock-on effects on the local / regional highway network, and on roads and junctions towards Cardiff. A substantial investigation into such potential side-effects is essential to understand the benefits and costs of this option.

49. There is a concern that this option is the most difficult to construct, with a risk of reduced capacity and possible closure for significant periods.

50. As with Options A and C, the statement in the appraisal that “it is not clear whether the additional road capacity would lead to an overall increase in emissions” is highly questionable. It is difficult to accept that this option would have an equivalent neutral impact on greenhouse gas emissions as Options A, B and C.

Question 5: Have you any additional comments to make regarding how to address the travel related problems occurring in the M4 Corridor, Magor to Castleton?

Funding

51. Information in the consultation document on the deliverability of the alternative options is very limited. It is evident that, with the exception of Highway Option B, the scale of the funding required will present major challenges. Highway Options A, C & D are in the range £300m to £830m. The Welsh Government, with whom lead responsibility properly rests for the M4 CEM programme, will need to ensure that the programme represents value for money, and that all relevant funding programmes are brought into the scope of the programme. There will be a need for a wide range of stakeholders to also play a role, and closer partnership working will be needed. Funding sources beyond those which would conventionally be considered for investment of this nature will need to be identified.

Delivering Progress in the Short to Medium Term

52. However the funding challenges are addressed, the scale of the programme indicates that the lead in time for major highway options in particular is likely to be lengthy. There will be a need for

measures to be taken in the interim which will help to address the situation where any increases in highway capacity will not be deliverable for a number of years. While demand management can play a role, and needs to be more effectively considered, investment in rail, bus, cycling and smarter choices programmes becomes not an option but a necessity.

Aligning the M4 CEM Programme with Broader Transport and Land Use Planning

53. It is important that the proposals for the M4 CEM Programme are effectively integrated with those for the broader region. The implications of the M4 CEM options for transport networks beyond the scope of the programme need to be fully understood. A key factor which also needs to be taken into account is the potential for changes in toll levels on the Severn Bridge, which could have profound implications for traffic flows and levels of congestion on the M4.

54. There is also a pressing need to align the objectives of transport planning and spatial / land use planning along the M4 corridor. It will be essential in seeking to achieve lower congestion levels that new development is concentrated in locations which can be effectively accessed by public transport, and that further development in locations which would be heavily dependent on access by private car, particularly in close proximity to M4 junctions, is avoided. There is a case for a review of the guidance offered by Welsh Government Planning Policies to local planning authorities on their Development Plans, to reflect the goals of the M4 CEM Programme. Work on developing a regional planning framework should have similar regard to these goals.

Summary of Key Comments

- 1. Economic Growth** - Enabling economic growth is a key function of the transport network. A networked City Region, which harnesses the potential of the M4 Corridor, requires accessibility throughout the region. An effective M4 CEM Programme can stimulate the economic growth of the whole region.
- 2. Key Problems** – These are clearly the congestion, safety and resilience issues of the current M4 around Newport. For many existing road users along this motorway section, there is a lack of sustainable transport alternatives. Many journeys are local, and these would have the potential for modal shift were adequate alternatives available.
- 3. Programme Goals** - The goals of the M4 CEM Programme are generally aligned with those of the Sewta RTP and, subject to the comments in this response, are broadly supported, although the definition of the carbon reduction goal is questioned. This section of the M4 Corridor, has a critical part to play in improving strategic connectivity for Wales.
- 4. Congestion Impacts on the Wider Network** - There is concern that the impacts of the enhanced traffic flows achieved by the proposed highway options, on highway networks beyond this length of the motorway, do not appear to have been modelled or evaluated. As well as the road network around Newport, there are also concerns at the impact on strategic junctions further west and east. Key issues will be the impacts on J32, Coryton, on the junctions on the A48 in Cardiff, and on the 2-lane section of the M4 at Jct 23 Magor.
- 5. Public Transport Measures** -There is a strong case for a more comprehensive package of public transport alternatives. Better value for money can be achieved by integrating regional and M4 CEM programmes. Many of the regional public transport proposals have advanced to design and public consultation. Their costs, benefits and deliverability are generally well understood.
- 6. Highway Option A** - In terms of providing improved long-distance connectivity, this option would have a major positive effect, especially if it can be accessed at junctions 23 and 29 only. The assumption of no intermediate junctions may, however, be unrealistic, and these would add substantially to the costs.

7. **Highway Option B** - This is likely to have the least impact on achieving the broader goals and aims of the project.
8. **Highway Option C** – This would perform better than Option B in terms of providing resilience and capacity improvement for through traffic. There is a concern, however, that these benefits will be constrained by the capacity of key interchanges at Junctions 28 and 24 without further investment in them.
9. **Highway Option D** - The main transport drawback of this option is that the additional capacity of the M4 would lead to additional pressure on the routes leading to the motorway, and these are already suffering from congestion and negative environmental effects. Without expensive mitigation measures, congestion, noise, air pollution, etc would increase substantially along the M4 corridor and the routes leading to it.
10. **Deliverability** - Information on the deliverability of the alternative options is very limited. The scale of the funding required will present major challenges. Highway Options A, C & D are in the range £300m to £830m. The Welsh Government will need to ensure that the programme represents value for money. Funding sources will need to be identified beyond those which would conventionally be considered.
11. **Investments in the Short to Medium Term** - The lead in time for major highway options is likely to be lengthy. There will be a need for measures in the interim. While demand management can play a role, substantial investment in rail, bus, cycling and smarter choices programmes is a necessity.
12. **Regional Integration** - The proposals for the M4 CEM Programme need to be effectively integrated with those for the broader region. The implications of the M4 CEM options for wider transport networks need to be fully understood. The potential for changes in tolls on the Severn Bridge, which could have profound implications for traffic flows and levels of congestion on the M4, will need to be taken into account.
13. **Co-ordination with Land use Planning** - It will be essential in seeking to lower congestion, that new development is concentrated where it can be effectively accessed by public transport, and that development in locations dependent on the car, particularly close to M4 junctions, is avoided.
14. **Data Reliability** - The body of information and appraisal available as part of this consultation is not adequate to enable conclusive decisions to be made.

Appendix B

Sewta response to M4 CEM SEA, HIA and EqIA Consultation

About Sewta

1. **Sewta** is the alliance of local authorities charged with developing transport policy and delivering transport projects on behalf of the 10 local authorities in South East Wales and their partners, both in the transport industry and in organisations representing users' interests.
2. Sewta's membership includes the local authorities of Blaenau Gwent, Bridgend, Caerphilly, Cardiff, Merthyr Tydfil, Monmouthshire, Newport, Rhondda Cynon Taff, Torfaen and the Vale of Glamorgan. Partners are the Confederation of Passenger Transport, Arriva Trains Wales, Network Rail, Bus Users UK, Passenger Focus and Sustrans. **Sewta** works closely with the Welsh Government.
3. Sewta welcomes the opportunity to respond to the Welsh Government's consultation on the M4 CEM Programme SEA, HIA and EqIA. Sewta's response draws on the Regional Transport Plan, which is the statutory Transport Plan for South East Wales. It was approved by Sewta in March 2010, and has been endorsed by the Welsh Government.

Sewta's Consultation Response

4. The following sections identify our comments regarding the Consultation document:

SEA Objectives

5. The importance of delivering a more carbon efficient transport with an increased emphasis on more sustainable modes is closely allied to the objectives of the Sewta Regional Transport Plan; therefore Sewta welcomes the amendment of SEA objective 2a to reduce the global level of transport related greenhouse gasses, replacing the per km/person criteria.

Scope/geographical coverage

6. Section 3.1.2 notes that the M4 CEM programme will have a wider geographical sphere of influence than the confines of the M4 between Magor and Castleton, including the potential to increase journeys in and around Cardiff. This has important ramifications for the regional transport network. Whilst it is appreciated that the majority of environmental impacts will be in and around the Newport area itself, there appears to be limited consideration of the impact or information related to those wider locations identified.

Policy context

7. Sewta welcomes the inclusion of the Regional Transport Plan and Rail Strategy within the list of relevant policies, plans and programmes

Baseline Information – Public Transport

8. Whilst there is a range of information within this section, there are a number of notable omissions. There are a number of bus and coach services that utilise the M4 corridor within the study area. These provide a foundation to provide more sustainable alternatives – particularly for city centre to city centre type trips, or the leisure market (such as travel to an airport) where public transport can offer a credible alternative. Services include:

- National Express Long Distance Coach Services
201 - Route South Wales Bristol to Heathrow Gatwick Airports
322 - Coaches between Nottingham, Leicester, Birmingham and South Wales
508 - Route Swansea West Wales to London
509 - Route Cardiff to London
- First Group
14 - Newport to Chepstow
- Stagecoach in South Wales
X3 – Cardiff – Pontypool – Abergavenny
- Megabus (operated by Stagecoach)
Cwmbran – Newport – Bristol – London
Swansea – Cardiff – Bristol – London

Cardiff Bus Network

9. The SEA notes the potential impact of the M4 in Cardiff; therefore we would also highlight the presence of park and ride services, particularly the Pentwyn Facility that could intercept a percentage of city centre traffic emanating from the M4. This facility has also expanded to provide a park and ride facility servicing Heath Hospital.

Cardiff Railway Network

10. There are a number of rail freight movements within the study area. These are summarised in Appendix B of the Sewta Rail Strategy. We would also identify Wentloog Rail Freight Terminal as a key element of the rail network.

Newport Bus Network

11. The majority of the Newport Bus network is commercial, with limited infill by supported services. The X30 also calls at Heath Hospital to provide an alternative to sections of the M4 for some users.
12. Shortcomings of the existing bus network include a lack of genuine 'express' buses, resulting in journey times greater than the private car. This is demonstrated by the success of the Ebbw Valley Line, which reduced the journey time by public transport between Ebbw Vale and Cardiff by half. This results in times competitive with the car and has removed a number of journeys at key congestion points on the M4, such as Junction 28, Tredegar Park.

Car Share

13. Although Sewta is responsible for administering the Sewta Car Share database, funding is provided by Welsh Government. We would also refer to the Cardiff Council Car Share database, which may intercept some M4 related journeys.

Cycling

14. In addition to the measures identified, National Cycle Network Route 4 also provides cycle links between Chepstow and Newport. The lack of a suitable, more direct cycle route between Newport and Cardiff is also a barrier to increased levels of cycling within part of the study area.

Road Freight

15. The use of the M4 by Heavy Goods Vehicles (HGV) is a major influence on levels of environmental impact. The Wentloog Rail terminal provides an opportunity to consolidate freight for local distribution. For example Tesco utilise a rail service from Daventry to supply the Magor Distribution depot.

Section 3.3.2.4 Key Issues

16. The final bullet point in this section notes the replacement of private car use by more sustainable modes is required but dependent on behavioural change. We would also note that infrastructure and service provision to facilitate and influence such behavioural change is also required.

Section 3.7.2.1 4th Paragraph

17. This section notes monitoring has identified an improvement in the M4 safety record following the implementation of safety initiatives. However, the quantum of improvement needs to be recorded.

3.7.2.2. Trends and future baseline

18. We would question the relevance of crime and anti-social behaviour statistics in the context of the SEA. This would be relevant to the EqlA in terms of barriers to travel to more vulnerable social groups.

3.12.2.1

19. Tredegar Park House is now run by the National Trust

Section 5.5, Table 8

20. Within the 'demand management' and 'Alternative travel modes and smarter sustainable choices' we would also wish consideration being given to measures to reduce the need to travel such as home working and video/teleconferencing.
21. Within the 'Alternative travel modes and smarter sustainable choices' category we would also include 'provide better/promotion of public transport'

Assessment Table Comments

Table 9 and 10

22. M4 CEM SEA objectives 1 and 2a relate to goals of improving air quality and reducing transport related greenhouse gases. It is therefore disappointing there is no assessment of these attributes for the highway elements. Sewta is concerned at the omission of these elements as they need to be key considerations within the SEA.
23. We also note table 10 has a neutral rating for public transport. This does not appear to incorporate improvements in emissions standards for public service vehicles, with an increasing number of vehicles in the fleet running at Euro 5 standard.

Table 12

24. Noise and vibration are key impacts for residents. We note no assessment has been undertaken for highway options A – C. We would also note, the SDR passes in close proximity to a number of residential areas that are likely to experience significant increases in noise and vibration.

Table 13

25. We would question the relative significance of the same rating for public transport and option D. Whilst there would be some impact arising from the construction of new public transport facilities, these are likely to be significantly less than the online widening of the M4 and construction of new tunnels at Brynglas and associated overbridges across the Usk.

Table 14

26. Sewta's response to the M4 CEM consultation highlighted concerns that options B and C would increase severance for some communities – for example, Ringland and Pill. The creation of grade separated junctions will require significant land take and will require the construction of bridges and slip roads. This will result in significant severance for those communities and require appropriate pedestrian and cycle facilities to minimise the impact.

Table 15

27. The SEA identifies the positive impact of more sustainable modes on health. We would question the same overall rating being applied to Option A.
28. Option B and C note there is likely to be an increase in vehicle flows on the SDR as movements transfer from the M4. The SDR is predominantly an urban highway, the majority of which is in close proximity to residential areas. We would therefore question the neutral rating applied to these options.

Table 16

29. The assessment for option D is slight adverse. Although the impact is likely to be lower than option A, it is likely to be significantly higher than option C, given the requirement to remove a significant amount of material from the Crindau Ridge.

Table 23 – Mitigation measures

30. Air quality– The use of alternative forms of propulsion (including public transport) should also be considered and referenced. For example the electrification of the South Wales Main Line and Valleys Lines will reduce emissions. The use of more sustainable modes will also provide a degree of mitigation.