

THE WELSH MINISTERS

The M4 Motorway (Junction 23 (East of Magor) to West of Junction 29 (Castleton) and Connecting Roads) and The M48 Motorway (Junction 23 (East of Magor) Connecting Road) Scheme 201-

The London to Fishguard Trunk Road (East of Magor to Castleton) Order 201-

The M4 Motorway (West of Magor to East of Castleton) and the A48(M) Motorway (West of Castleton to St Mellons) (Variation of Various Schemes) Scheme 201-

The M4 Motorway (Junction 23 (East of Magor) to West of Junction 29 (Castleton) and Connecting Roads) and The M48 Motorway (Junction 23 (East of Magor) Connecting Road) and The London To Fishguard Trunk Road (East of Magor to Castleton) (Side Roads) Order 201-

EXPLANATORY STATEMENT

1 INTRODUCTION

- 1.1 The Welsh Ministers are responsible for special roads (including motorways) and trunk roads in Wales. In addition to serving local communities, the M4 around Newport is a route of strategic importance at regional, national and international levels, linking south and west Wales to the south west of England and forms part of strategic routes to Ireland, the Midlands, the south east of England and further to continental Europe (Trans-Europe Transport Network).
- 1.2 The Welsh Ministers have published proposals for a new section of motorway to the south of Newport, alongside complementary measures.
- 1.3 The published proposals for the M4 Corridor around Newport project (referred to as 'the Scheme') comprise:
 - (a) A draft Scheme Order to provide a new length of dual 3-lane motorway between Magor and Castleton to the south of Newport, its new slip roads and connecting roads. It also provides for bridges passing over navigable waterways;
 - (b) A Scheme Variation Order to remove the special road classification from various lengths of the existing M4 motorway between Magor and Castleton and the A48(M) motorway between Castleton and St. Mellons. Although these lengths would cease to be motorways they would continue to be trunk roads. ;
 - (c) A draft Line Order to provide for new lengths of trunk road required for the Scheme;

- (d) A draft Side Roads Order to stop up, improve or alter some lengths of existing roads, footpaths, cycle routes, byways, bridleways and private accesses, to construct new highways and provide new private means of access;
- (e) A draft Compulsory Purchase Order, which provides for the acquisition of all the land and rights required for the construction, operation and maintenance of the new motorway and new trunk road and their associated side road proposals; and
- (f) Draft Section 19 Certificates, which provide for replacement Common Land and allotments and extinguish existing rights.

1.4 An Environmental Statement and a Statement to Inform an Appropriate Assessment of the potential likely effects of the Scheme have been prepared in association with the above Orders and are available for inspection.

1.5 Subject to the satisfactory completion of the statutory procedures, it is intended to start construction in spring 2018 and the new section of motorway would be open to the public in autumn 2021. The reclassification works to the existing M4 and A(48)M motorways would then commence and be completed in autumn 2022.

2 BACKGROUND AND NEED FOR THE SCHEME

2.1 The M4 around Newport is a route of strategic importance at national, regional, local and, indeed, international levels, linking south and west Wales to the south west of England and forms part of strategic routes to Ireland, the Midlands, the south east of England and further to continental Europe.

2.2 The M4 is critical to the Welsh economy. It forms part of the Trans European Transport Network and is the gateway to Wales, transporting people and goods to homes, industry and employment. It provides access to ports and airports and serves the Welsh tourism industry.

2.3 However, for many years, traffic congestion has been a fact of life for those using the existing M4 around Newport and living in the area. Journey times are often unreliable, making it more difficult to access job opportunities or services including education. Problems on the existing M4 around Newport relate to capacity, resilience, safety and issues of sustainable development. These problems are expected to get worse.

2.4 The transport related problems around Newport discourage business investment and the Welsh Government aims to provide a transport system that improves Wales' economic competitiveness and encourage jobs and growth.

- 2.5 In terms of the environment, local authorities in the UK work towards meeting national air quality objectives. If a local authority finds any places where the objectives are not likely to be met, it must declare an Air Quality Management Area. Newport has seven of these Air Quality Management Areas (AQMAs) and four are associated with the existing M4.
- 2.6 Traffic growth along the existing M4 around Newport has also contributed to noise pollution, affecting neighbouring residential communities. Newport has various designated Noise Action Planning Priority Areas (NAPPAs) including along the M4.
- 2.7 Since the early 1990s, much assessment and consultation has been undertaken to develop a preferred solution to the transport related problems associated with the M4 around Newport.
- 2.8 In March 1989, the then Secretary of State for Wales commissioned the South Wales Area Traffic Study (SWATS) to review traffic patterns over part of the trunk road network in South Wales in order to identify problem areas and propose possible solutions. The SWATS Report (1990) identified the need for substantial improvement to the M4 to address a growing capacity issue on the motorway, in particular the section between Magor and Castleton.
- 2.9 Following consultation in 1993 and 1994, a Preferred Route for an M4 Relief Road was announced by the then Secretary of State for Wales, on 12 July 1995. A TR111 Notice was also published on the same day, which protected a corridor for planning purposes. A revised TR111 Notice was published in 1997 to take into account local developments of importance.
- 2.10 Between 1997 and 2006, studies were undertaken to consider other options such as public transport improvements, and a comprehensive route review led to a further revised TR111 Notice being published in 2006. The modified route took into account environmental legislation that increased the protection of Sites of Special Scientific Interest (SSSIs) amongst other constraints.
- 2.11 In 2009 the Scheme following the Preferred Route was pronounced not to be affordable by the then Deputy First Minister. Instead, the M4 Corridor Enhancement Measures (CEM) programme was set up to explore and resolve issues of capacity, safety and resilience along the M4 corridor in south east Wales.
- 2.12 As part of the M4 Corridor Enhancement Measures (CEM) Programme, a comprehensive engagement process was launched in September 2010 culminating in a public consultation held on different options and their associated assessments, between March and July 2012.
- 2.13 The consultation resulted in public support for the provision of an additional high quality road to the south of Newport, supported by additional measures.

- 2.14 Initiatives, including discussions between the Welsh Government and HM Treasury/Department for Transport, created potential funding opportunities for Welsh Government infrastructure projects. As a consequence, the decision was taken by the Welsh Government to further reconsider solutions to resolve the transport related problems on the M4 around Newport.
- 2.15 Further appraisal was undertaken of options that included M4 CEM options, motorway options, and complementary measures. The appraisal concluded that a new section of dual 3-lane motorway to the south of Newport, in addition to complementary measures, should be progressed.
- 2.16 These options subsequently formed the basis for the development of the draft Plan and Strategic Environmental Assessment, which was subject to public consultation between September and December 2013. Taking responses to the consultation and its associated assessments into account, the Welsh Government decided to adopt 'The Plan' in July 2014. A revised TR111 Notice was published in July 2014 to protect a modified preferred route for a new section of motorway to the south of Newport.
- 2.17 Following adoption of the Plan, the Welsh Government has employed a contractor and a consultant who have developed the proposals taking in to account the Welsh Government's duties under Section 28G of the Wildlife and Countryside Act. These are to "take reasonable steps, consistent with the proper exercise of the authority's functions, to further the conservation and enhancement of the flora, fauna or geological or physiographical features by reason of which the site is of special scientific interest'. Other matters taken into account during the development of the proposals include existing constraints and environmental features, together with the findings of consultation and stakeholder engagement.
- 2.18 The M4 Corridor around Newport project is the sustainable, long term solution to the social, environmental and economic problems associated with the main gateway into South Wales.
- 2.19 The Scheme would improve accessibility for people as well as Welsh goods and services to domestic and international markets.
- 2.20 The proposals for the M4 Corridor around Newport are promoted by the Welsh Government as an important part of its Wales Infrastructure Investment Plan (WIIP) which has set a clear direction for capital investment in Wales that supports growth and jobs.
- 2.21 The public have been engaged in the development of the current proposals by a series of Public Information Exhibitions during September 2015, supported by media including newsletters, radio advertising and a Scheme website.

- 2.22 Local Planning Authorities and Statutory Environmental Bodies have been visited and made aware of the proposals and had the opportunity to comment on the development of the proposals. Water treatment areas and temporary land for construction have been adjusted during development to accommodate their requirements.
- 2.23 Landowners and persons whose properties or private accesses would be directly affected by the Scheme have been visited or made aware of the proposals and had the opportunity to comment on the development of the proposals.

3 POLICY CONTEXT

- 3.1 A comprehensive review of relevant plans, policies and programmes has previously been undertaken and taken into account at a strategic level, as part of the Strategic Environmental Assessment published alongside the Welsh Government's adopted M4 Corridor around Newport Plan (July 2014).
- 3.2 A review of the legislative and policy context from an environmental perspective and for the Scheme is reported in the Environmental Statement, Chapter 6. Assessment topic specific policies are further set out and taken into account in the Environmental Statement assessment topic chapters (Volume 1, Chapters 7 to 16).
- 3.3 In summary, the main legislation and policy documents taken into account in the Environmental Statement include:
- a. Well-being of Future Generations Act (Wales) 2015;
 - b. Active Travel (Wales) Act 2013;
 - c. Wildlife and Countryside Act 1981 (as amended);
 - d. Natural Environment and Rural Communities Act 2006;
 - e. Conservation of Habitats and Species Regulations 2010;
 - f. Planning (Wales) Act 2015;
 - g. Human Rights Act 1998;
 - h. Climate Change Act 2008;
 - i. Environment Bill (Wales) 2015;
 - j. Historic Environment (Wales) Bill 2015;
 - k. The Wales Spatial Plan (Update 2008);
 - l. Planning Policy Wales (Edition 8, January 2016);
 - m. Technical Advice Note 15: Development and Flood Risk (July 2004);
 - n. Technical Advice Note 18: Transport (March 2007);
 - o. Welsh Government's Programme for Government 2011-2016;
 - p. One Wales: One Planet. (May 2009);

- q. One Wales: Connecting the Nation – The Wales Transport Strategy (April 2008);
- r. Walking and Cycling Action Plan for Wales (December 2008);
- s. Trunk Road Forward Programme (November 2009);
- t. National Transport Plan for Wales (March 2010) and its Finance Plan (2015);
- u. South East Wales Transport Alliance Regional Transport Plan (March 2010);
- v. Trunk Road Estate Biodiversity Action Plan (2004-2014);
- w. Wales – A Vibrant Economy (November 2005);
- x. Economic Renewal, A New Direction (July 2010);
- y. Environment Strategy for Wales (2006);
- z. The UK Low Carbon Transition Plan (July 2009);
- aa. Climate Change Strategy for Wales (October 2010);
- bb. Newport Local Development Plan 2011-2026¹;
- cc. Monmouthshire Local Development Plan 2011-2021; and
- dd. Cardiff Local Development Plan (2006-2026).

3.4 Below is a description of the main policies from a transport perspective, relevant to the Scheme, at both UK and Welsh levels.

The Wales Spatial Plan 2008:

3.5 The Scheme is located in 'South East Wales - Capital Region' as defined by Chapter 19 of the Wales Spatial Plan. The vision for the South East of Wales is that it is; 'An innovative skilled area offering a high quality of life - international yet distinctively Welsh. It will compete internationally by increasing its global visibility through stronger links between the Valleys and the coast and with the UK and the rest of Europe; helping to spread prosperity within the area and benefiting other parts of Wales'. The Wales Spatial Plan prioritises the need for a fully integrated high quality transport system, and states "measures to alleviate congestion around Newport, and investment to tackle bottlenecks on other parts of the M4 are essential".

Wales Transport Strategy 2008:

3.6 One Wales: Connecting the Nation, The Wales Transport Strategy is the Welsh Governments strategy for transport. The stated goal of the Wales Transport Strategy is "to promote sustainable transport networks that safeguard the environment while strengthening our country's economic and social life." It sets out that "while much of the road network is congestion-free for most of the day, significant problems exist on strategic routes such as the M4 and in urban centres" and "in south Wales the M4 between the Severn

¹ Where relevant LDP policies of other local authorities potentially of relevance to the Scheme are set out in the Policy and Guidance sections of the relevant environmental topic chapters of the Environmental Statement, Chapters 7 – 16.

Crossings and Swansea is a vital link with traffic levels well above its capacity.” The Wales Spatial Plan identifies the improvement of capacity along this corridor as a key strategic issue.

The National Transport Plan 2010 and National Transport Finance Plan 2015:

- 3.7 The National Transport Plan (NTP) was first published in March 2010. Chapter 4 of the 2010 NTP is concerned about the east-west corridor in South Wales. It notes that “the M4 between Newport and Swansea is a key corridor for the economy of south Wales. It does however suffer congestion during peak periods and is, in parts, vulnerable to closures without appropriate alternatives being available”. A key targeted investment during the period of the NTP therefore is to improve reliability, journey times and safety along the east-west road corridor in South Wales (p.27). The 2010 NTP notes further (p.28) that “Commuter traffic places the greatest pressure on the network, particularly where local traffic also uses the motorway network for short trips. In a number of locations it is being used for a purpose it was not designed for, which compounds the problem and can cause increased risk of collisions”.
- 3.8 Intervention 91 of the 2010 NTP commits Welsh Government to deliver a package of measures designed to improve the efficiency of the M4 in south-east Wales, including public transport enhancements, making the best possible use of the motorway and improving the resilience of the network.
- 3.9 In December 2014 a draft National Transport Plan 2015 was published for consultation. The National Transport Finance Plan was subsequently published in July 2015, following consultation responses received in support of a streamlined plan with greater focus on supporting the re focusing of the plan to provide the timescales, budgets and likely sources of financing for schemes being undertaken by Welsh Government. A delivery schedule is provided and under new road schemes to be constructed R8 is included and described as: “Improvements to the M4 Corridor around Newport - a new section of motorway south of Newport and complementary measures including; reclassification of the existing M4 between Magor and Castleton, a M48-B4245 link and cycling and walking friendly infrastructure”.

Sewta Regional Transport Plan 2010:

- 3.10 Sewta was the alliance of 10 local authorities in South East Wales charged with preparing and co-ordinating regional transport policies, plans and programmes on behalf of its constituent councils. A Regional Transport Plan (RTP) was produced by Sewta and published in March 2010. The main aim of the RTP is to improve regional transport in South East Wales and to help deliver the social, economic and environmental objectives of the Wales Spatial Plan and the Wales Transport Strategy. Paragraph 4.15.8 of the RTP notes that the key road links to England are M4 across the Severn to London and A40 (M50) to the Midlands. It goes on to say that “while Sewta does not support the provision of substantial extra capacity to the national motorway system, where there are congestion, safety or maintenance issues these will need to be addressed to improve the efficiency of the trunk road network of South East Wales”.

Local Transport Plans:

- 3.11 Local Transport Plans replaced the RTP in 2015, and have been prepared for Newport, Monmouthshire and Cardiff. Appropriate references to these documents, as well as the Local Transport Plans of other relevant local authorities, is made in the Environmental Statement or its associated reporting.

Wales Infrastructure Investment Plan 2012:

- 3.12 The Wales Infrastructure Investment Plan for Growth and Jobs (WIIP) is designed to prioritise, scope and coordinate delivery of the Welsh Government's major infrastructure investments, whilst improving the long-term economic, social and environmental wellbeing of people and communities in Wales. High level investment priorities are set out and include: "Improving transport links, particularly East-West transport links in both North and South Wales – East-West links have already been prioritised in the National Transport Plan. In addition, larger projects are being examined for feasibility including the strategic enhancement of the M4". The Annual Report and Project Pipeline 2015 includes the project, setting out that it is "due to start on site in 2018 subject to successful completion of statutory procedures" and provides an update that the Welsh Government can: "access £500 million of direct borrowing, of which the Welsh Government has already announced its intention to use up to £400 million to support the M4 Corridor around Newport."

M4 Corridor around Newport Plan 2014:

- 3.13 Since the early 1990s, much assessment and consultation has been undertaken to develop a preferred solution to the problems on the motorway around Newport, including motorway options. In July 2014, taking into account social, economic and environmental assessment of the options, the Minister for Economy, Science and Transport decided to adopt the Plan for the M4 Corridor around Newport, which includes a new section of motorway being built between Junctions 23 and 29 south of Newport; alongside complementary measures. The Plan sets out that it is seeking to improve accessibility for people, Welsh goods and services to international markets by addressing capacity and resilience on the main gateway into South Wales, which is the M4 Corridor.

Programme for Government 2011-2016:

- 3.14 The Programme for Government maps the Welsh Government's delivery of its policies in terms of the impact that government is having on people's lives, rather than simply accounting for the amount of money spent or the number of policies implemented. Each chapter of the Programme for Government includes a series of commitments and associated indicators that demonstrate how the government is delivering for the people of Wales. Commitment 1/023 is to "prioritise the objectives of the National Transport Plan to ensure that the existing transport funding is used effectively, the level of resources enhanced and that future investment decisions are made against these overarching strategic priorities".

- 3.15 In summary, the Scheme supports the objectives of the Welsh Government as set out in the relevant policy documents, including but not limited to the Wales Spatial Plan, Wales Transport Strategy, Wales National Transport Plan, and the Wales Infrastructure Investment Plan for Growth and Jobs.
- 3.16 Relevant to the draft CPO is the need to also be in accordance with the Human Rights Act 1998 and take into consideration The National Assembly for Wales Revised Circular on Compulsory Purchase Orders (NAFWC 14/2004). It is acknowledged that a CPO should only be made where there is a compelling case in the public interest. An acquiring authority, including Welsh Ministers, should be sure that the purposes for which it is making a CPO sufficiently justify interfering with the human rights of those with an interest in the land affected, having regard, in particular, to the provisions of Article 1 of The First Protocol to the European Convention on Human Rights and, in the case of a dwelling, Article 8 of the Convention.

4 EXISTING CONDITIONS

- 4.1 Unreliable journey times and traffic congestion, particularly during peak times, are common occurrences on the M4 around Newport. This is due to the lack of capacity and alternative routes, especially during incidents and accidents. The level of congestion is expected to increase.
- 4.2 The M4 between Junctions 28 and 24 was originally designed as the 'Newport Bypass' in the 1960s
- 4.3 The existing M4 motorway between Magor and Castleton does not meet modern motorway design standards and a greater volume of traffic uses it than it was originally designed for.
- 4.4 Some sections have alignments (gradients and bends) that are below current motorway standards and in places there is no hard shoulder. In addition to this, there are frequent junctions, resulting in many weaving movements with vehicles accelerating, decelerating and changing lanes over relatively short distances.
- 4.5 Congestion on the existing M4, particularly around Newport, is cited by the business community in South Wales as a barrier to economic growth. Where congestion increases, this imposes costs on businesses, commuters and consumers which in turn affects our economy. For commuters, congestion results in longer journey times to work. This reduces access to employment opportunities.
- 4.6 Residents of Newport close to the existing M4 experience poor air quality as a result of motorway traffic. Out of seven Air Quality Management Areas (AQMAs) designated by Newport City Council, four are associated with the M4.

- 4.7 Approximately 9km of the proposed new section of motorway would cross parts of the Wentlooge and Caldicot Levels, collectively referred to as the Gwent Levels, an area of low-lying, flat reclaimed coastal marshes that extend up to the Severn Estuary. The Gwent Levels are designated both for their historic landscape and ecological interest.
- 4.8 The Gwent Levels are dissected by an extensive network of tide locked freshwater drains, locally known as reens, and smaller ditches. These provide habitats which support insects, invertebrates and the Shril Carder Bee. It is for these ecological features that the Gwent Levels are designated as SSSIs. The Welsh Government, in accordance with its duties under environmental legislation, has taken into account the features of the SSSIs during the design of the Scheme.
- 4.9 A number of designations apply to the Gwent Levels, including the following:
- The Gwent Levels Historic Landscape;
 - A number of Sites of Special Scientific Interest (SSSIs), including:
 - Rumney and Peterstone SSSI;
 - St. Brides SSSI;
 - Nash and Goldcliffe SSSI;
 - Whitson SSSI;
 - Redwick and Llandevenny SSSI; and
 - Magor and Undy SSSI.
- 4.10 The reen system on the Caldicot and Wentlooge levels is a network of interconnecting watercourses (reens and field ditches). The water levels in the reens are controlled by a series of sluice structures and are divided into winter penning levels and summer penning levels. Winter penning levels are kept lower to provide additional storage capacity. In summer, the penning levels are kept higher to provide a water source for agricultural purposes.
- 4.11 The existing M4 motorway crosses a number of watercourses, including the River Usk, the River Ebbw, the Monmouthshire and Brecon Canal and a number of local watercourses and ditches. The River Usk is designated at the international level as a Special Area of Conservation (SAC) and at a national level as a Site of Special Scientific Interest (SSSI) for its nature conservation value. The existing M4 motorway crosses over the River Usk immediately to east of the Brynglas Tunnels.
- 4.12 It is envisaged that any required environmental licences/consents would be obtained in order for construction of the Scheme to be completed.

- 4.13 Section 28 of the Wildlife and Countryside Act 1981 enables the Natural Resources Body for Wales, Natural Resources Wales (NRW), to designate land an SSSI, by reason of any of its flora, fauna, or geological or physiological features. The protection of those designated sites was substantially increased by the Countryside and Rights of Way Act 2000 which, by Section 75 and Schedule 9, inserted new sections 28A-28R into the 1981 Act. The Welsh Ministers have a duty, set out in Section 28G(2) to *"take reasonable steps, consistent with the proper exercise of the authority's functions, to further the conservation and enhancement of the flora, fauna or geological or physiographical features by reason of which the site is of special scientific interest"*.

5 CONSULTATIONS

- 5.1 Following consultation in 1993 and 1994, a Preferred Route for the M4 Relief Road was announced by the then Secretary of State for Wales, on 12 July 1995. A TR111 Notice was also published on the same day.
- 5.2 As part of the M4 Corridor Enhancement Measures (CEM) Programme, a comprehensive engagement process was launched in September 2010 culminating in a public consultation held between March and July 2012.
- 5.3 The consultation resulted in public support for the provision of an additional high quality road to the south of Newport, supported by additional measures.
- 5.4 A further M4 Corridor around Newport WelTAG Stage 1 (Strategy Level) Appraisal was undertaken of options that included M4 CEM measures, provision of new section of motorway capacity routed to the south of Newport and complementary measures.
- 5.5 This appraisal concluded that a new section of dual 3-lane motorway to the south of Newport following a protected (TR111) route, in addition to complementary measures, would best achieve the goals and address the problems of the M4 around Newport.
- 5.6 These options subsequently formed the basis for the development of the draft Plan, which was subject to public consultation between September and December 2013. Taking responses to the consultation into account, the Welsh Government decided to adopt the draft Plan and publish 'The Plan' in July 2014.
- 5.7 Local Planning Authorities and Statutory Environmental Bodies have been consulted and an Environmental Liaison Group set up. This brings together representatives from the Welsh Government, Newport City Council, Monmouthshire County Council, Cardiff Council, Natural Resources Wales and Cadw.

- 5.8 The public have been engaged in the development of the current proposals by a series of Public Information Exhibitions during September 2015, supported by media including newsletters, radio advertising and a Scheme website.
- 5.9 Local Planning Authorities and Statutory Environmental Bodies have been visited and made aware of the proposals and had the opportunity to comment on the development of the proposals. Water treatment areas and temporary land for construction have been adjusted during development to accommodate their requirements.
- 5.10 Landowners and persons whose properties or private accesses would be directly affected by the Scheme have been visited or made aware of the proposals and had the opportunity to comment on the development of the proposals.

6 AIMS AND OBJECTIVES

- 6.1 The proposals support the objectives of the Welsh Government set out in the People, Places, Futures: Wales Spatial Plan, Wales Transport Strategy, Wales National Transport Plan, and the Wales Infrastructure Investment Plan for Growth and Jobs. In addition to the Welsh Government's policy objectives, there are Scheme specific aims and objectives. The aims are to:
1. Make it easier and safer for people to access their homes, workplaces and services by walking, cycling, public transport or road.
 2. Deliver a more efficient and sustainable transport network supporting and encouraging long-term prosperity in the region, across Wales, and enabling access to international markets.
 3. To produce positive effects overall on people and the environment, making a positive contribution to the over-arching Welsh Government goals to reduce greenhouse gas emissions and to making Wales more resilient to the effects of climate change.
- 6.2 The objectives are to help achieve:
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.

7 THE PROPOSED SCHEME

- 7.1 The proposed new motorway works would be approximately 23 kilometres (km) in length between connections to the existing motorway and would provide three lanes in both directions.
- 7.2 The proposed new section of dual 3-lane motorway would depart from the line of the existing motorway north of Magor (Junction 23a) passing to the south of Newport across a new River Usk bridge crossing (440m main span), to connect with the existing junction at Castleton (Junction 29), which would be modified.
- 7.3 The route would pass through several SSSI designations through the Caldicot and Wentlooge Levels known as the Gwent Levels SSSIs. In fulfilling its duties under Section 28G of the Wildlife and Countryside Act, consistent with the exercise of the Welsh Ministers' functions, the SSSI's have been central to the design approach for the proposed new motorway. Such measures, for example, include improvements to existing SSSIs shown as SSSI mitigation land, and replacement of reens/ditches.
- 7.4 There would be modified junctions at the west end of the Scheme at Castleton and at the east end at Magor. Two new junctions would be provided along the new section of motorway at Newport Docks and at Glan Llyn.
- 7.5 The existing M4 motorway from Magor to Castleton would lose its special road classification but would continue to be trunk road as would the A48(M) between Castleton and St. Mellons.

- 7.6 The highway cross section would be a three lane motorway. Three lanes and a hard shoulder would generally be provided in each direction, separated by a central reserve (including concrete safety barrier). Drainage channels and fencing would be provided beyond the hard shoulder, with safety barriers where appropriate. This typical profile would vary at junctions (where merge and diverge slip roads would be provided).
- 7.7 The proposals for the new motorway have been designed with a 120 kilometres per hour design speed and a mandatory 70 miles per hour speed limit. The speed limits at either end of the new section of motorway are generally 70 mph, with the exception of the toll booth area associated with the Second Severn Crossing.
- 7.8 New or diverted lengths of highway, public rights of way and private means of access would be provided to replace those affected by the Scheme.
- 7.9 Road drainage would be provided through a combination of piped systems, grass lined channels and concrete channels, which would discharge into a series of twelve water treatment areas, each with an associated reed bed. These water treatment areas would attenuate and treat the collected surface water prior to discharging it into existing watercourses.
- 7.10 The Scheme would provide like for like lengths of replacement reens and field ditches which would be buried by the works. The reens and field ditches have been designed in consultation with NRW to be in keeping with the existing landscape. These reens and field ditches connect existing reens together, and along with the proposed tilting weirs will help to improve water management across the Gwent Levels.
- 7.11 Along the Gwent Levels the Scheme has used grassed channels along the edge of the carriageway where possible. These treat the water runoff from the highway naturally, and are more sustainable than conventional drainage systems. Water treatment areas have been designed to be in keeping with the historical landscape, and will permanently retain water, enhancing their ecological benefit. They have been designed with reed beds to naturally treat water from the highway before it discharges into the reen system.
- 7.12 Flood studies have concluded that construction of the Scheme would have acceptable consequences with respect to flood risk arising from river/reen flooding.
- 7.13 The Welsh Government is committed to the policy of maintaining sea defences to the Gwent Levels through the Severn Estuary Shoreline Management Plan. Provided that improvements to the coastal defences are undertaken in line with Severn Estuary Flood Risk Management Strategy, the Scheme will remain flood free during a 0.1%(1 in 1000) Annual Event Probability tidal event and have acceptable consequences with respect to tidal flood risk.
- 7.14 Works on the existing M4, following the removal of its special road classification, would comprise of the installation of traffic control measures, such as changes to traffic signs and to road markings. Revised layout arrangements would include:

- (a) A48(M), J29A to J29 – Dual two lane trunk road;
- (b) J29 to J26 – Dual three lane trunk road with a lane drop/lane gain between the slip roads at J28 where it becomes dual two lane;
- (c) J26 to J25 – Dual two lane trunk road (maximum speed limit 60mph);
- (d) Removal of J25A slip roads, replaced by new west-facing slips from J25 roundabout, with signalisation of roundabout and retention of link roads between J25 and J25A;
- (e) J25 to J24 – All-Purpose trunk road, three lanes eastbound and two lanes westbound; and
- (f) J24 to J23A – Dual two lane trunk road.

- 7.15 Works on the existing M4 would also include the reconfiguration of Junction 25 at Caerleon and associated works to reopen access to the existing M4 in both directions.
- 7.16 There would be amendments to the merge and diverge layouts at all of the junctions, which would be implemented using road markings and signing.
- 7.17 The existing Variable Speed Limit would continue to operate along the existing M4 between J24 (Coldra) and J28 (Tredegar), but with a maximum speed limit of 60 miles per hour imposed at the Brynglas Tunnels, as identified at (c) above.
- 7.18 A description of the Scheme is provided below, moving west to east.
- 7.19 The existing Castleton junction on the M4 (J29) would be modified to incorporate the new section of motorway. The junction would provide a free flowing junction providing three lanes in both directions for both the new and existing M4 routes. The layout would also provide access to and from the A48(M) and the existing M4 motorway route between Magor and Castleton, both of which would be reclassified following completion of the new section of motorway.
- 7.20 At the Castleton Junction, the existing A48(M) overbridge, Park Farm footbridge and the Pound Hill overbridge would be demolished. A new Park Farm footbridge would be constructed to the west of the existing.
- 7.21 The proposed works near Castleton would require the demolition of six residential properties and a telecommunications installation.
- 7.22 To the east of Castleton junction, the proposed new motorway would depart from the existing motorway route along a south easterly alignment passing to the west and south of Berry Hill Farm on embankment.
- 7.23 Church Lane would be realigned and carried over the new motorway on a bridge. Church Lane would connect back into the existing local road network at a new roundabout junction.

- 7.24 Between Church Lane and the South Wales to London Mainline railway, the proposed new motorway would follow the existing Duffryn Link Road corridor along the boundary between the urban extents of the city of Newport and the adjacent Wentlooge Levels. The proposed new motorway would be constructed on embankment, decreasing in height from its maximum at Castleton Junction and then rising again where it would cross the railway on a new bridge. A new bridge for non-motorised users (NMUs) would be provided, connecting Percoed Lane to the east and the west for the use of pedestrians, cyclists and equestrians.
- 7.25 To the east of the railway, the proposed new motorway would continue on a low embankment across the Wentlooge Levels to the River Ebbw. New bridges would be provided to carry Lighthouse Road and the access to New Dairy Farm over the motorway. The Wales Coast Path would be carried over the proposed new motorway on the New Dairy Farm access bridge with dedication provided in the draft Side Roads Order.
- 7.26 It would cross the River Ebbw on a new bridge, pass to the south of the Docks Way Landfill site and continue through the Newport Docks owned and operated by Associated British Ports. A new full movements junction would be provided here which together with a new link road to the north, would connect the proposed new motorway to the A48 Newport Southern Distributor Road for access to the docks and the centre of the city of Newport.
- 7.27 East of the Docks Way Junction, the proposed new motorway would continue in an easterly direction towards the River Usk, rising in level and carried on a new viaduct.
- 7.28 It would cross the Newport Docks between the South and North Docks, known as the North Dock Cut, before straightening out over the main bridge crossing of the River Usk. To the east of the North Dock Cut the viaduct form would change to that of a cable stayed bridge. A total of 34 existing buildings in the Newport Docks would be directly affected by the proposals, requiring either full or partial demolition or modification. The docks access roads and rail routes would be maintained and would pass beneath the viaduct, being realigned to suit the new works proposals.
- 7.29 The whole of the River Usk bridge crossing is proposed to take the form of a 2.1 km long elevated structure, with viaduct construction on the approaches and a cable stayed bridge crossing of the River Usk at a minimum clearance of 25.5m above the docks water level of 7.56m Above Ordnance Datum (AOD). Over the River Usk, a minimum clearance of 32.0m would be provided above Mean High Water Springs Level of 6.49m AOD. The foundations would be located outside the River Usk mean high water level. The west foundation would be wholly outside the River Usk Special Area of Conservation (SAC) whilst the east foundation would be constructed within the SAC boundary.

- 7.30 On the east bank of the River Usk, the structure would pass over the Wales Coast Path and the industrial area around Corporation Road where the businesses of Marshalls and Bird Port would be directly affected through the construction of the proposed new viaduct bridge supports. Further east, it would cross the Uskmouth Railway line and then pass to the south of the Solutia Chemical Works and would pass over, without encroachment, the storage cell operated by Solutia UK which contains substances hazardous to health.
- 7.31 The Design Commission for Wales reviewed the preliminary Scheme proposals in October 2015. They commented that “the concept design for the Usk Bridge so far is elegant and well-considered”.
- 7.32 To the east of the River Usk Crossing structure, the proposed new motorway would continue eastwards upon low embankment across the Caldicot Levels. Nash Road would be diverted offline to the east with a new bridge to carry it over the proposed new motorway. The existing junction between Nash Road and Meadows Lane would be stopped up and a new junction would be provided between Meadows Road and Nash Road, via Nash Mead.
- 7.33 Continuing east, the alignment would follow a large right hand curve across part of the Caldicot Levels towards the former steelworks. The highway would be supported on a low embankment as it runs to the east towards the former steelworks.
- 7.34 The proposed new motorway would pass along the southern edge of the steelworks operations owned and operated by Tata and to the north of National Grid’s Whitson Substation. A new full movements junction would be provided here which, together with a new link road to the north, would connect the proposed new motorway to the A4810 at the point of the proposed new housing development (by others) to the north named Glan Llyn. The connection would be made at the existing roundabout on the A4810 which would be modified.
- 7.35 To the west of the Glan Llyn junction, a new motorway and trunk road maintenance depot would be constructed as part of the Scheme to replace the Wilcrick Depot that would be demolished near Magor. Access to the new depot would be made from the A4810.
- 7.36 From the new Glan Llyn junction, the new section of motorway would run in an easterly direction parallel to the A4810 and along the edge of the Caldicot Levels. A new bridge would be provided to carry North Row over the new proposed motorway, with North Row diverted offline to the west in order to avoid diversion of overhead electricity lines and pylons.
- 7.37 Further to the east towards Magor, Barecroft Common would be diverted offline to the north and would pass under the proposed new motorway carried on a bridge. A new junction would be provided between Barecroft Common and the A4810. To the south of the proposed new motorway, a new length of public right of way would connect between Barecroft Common and North Row.

- 7.38 The proposed new motorway would align northwards near Magor and towards the northern edge of the Caldicot Levels, the vertical alignment would rise up on a higher embankment in order to cross over the South Wales to London Mainline railway on a bridge. On the north side of the railway, a realigned public right of way would pass beneath the same bridge.
- 7.39 The proposed new motorway would pass to the north and west of Magor and would join the alignment of the existing M4 motorway in line and level east of the existing crossing of St Brides Brook/Mill Reen and of the existing Junction 23A. Between here and the eastern extent of the works connect in to the existing M4 at the South Wales to London mainline railway bridge, the proposed new motorway would be on the line and level of the existing motorway. A new section of bridleway would be provided to the north of Magor between Grange Road and St Brides Brook/Mill Reen Culvert.
- 7.40 To the north of Magor, the reclassified M4 would pass through the existing Junction 23A on the same line and level. Immediately to the east of Junction 23, it would be realigned to the north of the proposed new motorway where a new length of dual two lane trunk road would link to the modified Junction 23 to the east. Here, the M48 and the reclassified M4 link would terminate in a roundabout which would also have full movement links to the proposed new motorway. Additional free flowing links would be provided between the reclassified M4 and the M48 east bound and between the proposed new motorway and the reclassified M4 west bound.
- 7.41 A new roundabout junction would be provided between the realigned B4245 Newport Road and the A4810, northwest of Magor. One residential property and one building at the motorway and trunk road maintenance depot would be demolished. The remainder of the existing depot would be rendered unusable and hence the replacement depot proposed at Glan Llyn.
- 7.42 The existing St Brides Brook/Mill Reen culvert would be extended and the existing provision for pedestrians to walk through the culvert would be retained and replicated through the new structure.
- 7.43 New bridges would be provided to carry Newport Road and Knollbury Lane over the proposed new motorway. Knollbury Lane would remain on its current alignment and the existing bridge over the M4 motorway would remain.
- 7.44 The St. Bride's Road would remain on its current alignment and the existing Magor Penhow Underbridge would be extended (and is often referred to as the St Bride's Road Underbridge).
- 7.45 A new bridge would carry the new section of trunk road over Rockfield Lane which would remain on its current alignment and the existing bridge under the M4 motorway would remain.
- 7.46 At the proposed modified Junction 23, complementary measures include a connection of the B4245 Caldicot Road with the new roundabout, providing access to the motorway.
- 7.47 The Bencroft Lane would remain on its existing alignment and would pass under the link roads which would be carried on either new or existing bridges.

- 7.48 The early appointment of a contractor at the design stage with an Early Contractor Involvement (ECI) phase, has allowed the project to benefit from a continuous and iterative improvement of the designs and environmental mitigation strategies with the construction methodology inputs and production efficiency considerations. The level of details presented in the buildability report (Appendix 3.1 to the Environmental Statement) is an example of output of this early involvement. It describes the construction scenario and demonstrates the level of detail reached. The construction team brought robust experience in all construction and technical fields of the project and large scale project experience.
- 7.49 The ECI phase has allowed the team to challenge each other to make optimal use of all land impacted by the project and selecting it with a holistic perspective of environmental, SSSI, social, economic and technical impacts, with a particular focus on environmental mitigation, earthworks strategy, temporary works, temporary land and major bridge construction.
- 7.50 The design has been reviewed by a team of experienced construction engineers coordinating the technical decisions to a coherent design suitable for implementing modern, state of the art and economical construction techniques.
- 7.51 The ECI process delivered a coherent and robust project validated by all involved parties, including the potential future construction contractor. The proposals combine and bring together each of the involved parties' objectives in a sustainable economic construction perspective.

8 POWERS TO CONSTRUCT THE SCHEME

- 8.1 The Scheme is being promoted and would be constructed using the powers of the Welsh Ministers as Highway Authority in accordance with the Highways Act 1980, which have been transferred to them by virtue of the National Assembly for Wales (Transfer of Functions) Order 1999 and the Government of Wales Act 2006 and delegated to the relevant Assembly Minister.
- 8.2 The powers to construct the new section of motorway, sections of trunk road and to reclassify parts of the existing M4 and A48(M) would be obtained through the statutory Orders, listed below, that are now published in draft:
- (a) The M4 Motorway (Junction 23 (East of Magor) to West of Junction 29 (Castleton) and Connecting Roads) and The M48 Motorway (Junction 23 (East of Magor) Connecting Road) Scheme 201-
 - (b) The London to Fishguard Trunk Road (East of Magor to Castleton) Order 201-
 - (c) The M4 Motorway (West of Magor to East of Castleton) and the A48(M) Motorway (West of Castleton to St Mellons) (Variation of Various Schemes) Scheme 201-

- 8.3 The power to stop up, alter and improve highways, restricted by-ways, bridleways, footpaths and private means of access would be obtained through the Side Roads Order, which is now published in draft:
- (d) The M4 Motorway (Junction 23 (East of Magor) to West of Junction 29 (Castleton) and Connecting Roads) and The M48 Motorway (Junction 23 (East of Magor) Connecting Road) and The London To Fishguard Trunk Road (East of Magor to Castleton) (Side Roads) Order 201-
- 8.4 A draft Compulsory Purchase Order will be published 24th March 2016. If made, this would enable the Welsh Ministers to acquire all the land and rights over the land, necessary for the construction and maintenance of the proposals.
- 8.5 In drawing up the proposals, regard has been given to the interference with the rights of all those with interests in the Order lands and who would otherwise be affected by the Scheme.
- 8.6 As part of the legal process, the Welsh Ministers would consider all of the responses to the draft Schemes and Orders and then decide whether to hold a Public Local Inquiry. Following any Public Local Inquiry, should the Welsh Ministers decide to go ahead with the Scheme after taking into account the findings and recommendations of the independent Inspector, construction could start in early 2018.

9 DEPOSIT POINTS

- 9.1 Copies of the draft Schemes, Orders, the Environmental Statement, and other supporting information, may be inspected free of charge during normal working hours at any of the following deposit points:

Orders Branch, Transport,
Department of Economy Science and Transport,
Welsh Government,
Cathays Park,
Cardiff,
CF10 3NQ.

Newport City Council,
Civic Centre,
Godfrey Road,
Newport,
NP20 4UR.

Monmouthshire County Council,
County Hall,
Rhadyr,
Usk,
NP15 1GA.

Monmouthshire County Council,
Innovation House,
Wales 1 Business Park,
Magor,
Monmouthshire,
NP26 3DG.

Newport Central Library,
John Frost Square,
Newport,
NP20 1PA.

- 9.2 Additional copies of the published information may be obtained from the Welsh Government.

10 LODGING OBJECTIONS TO THE DRAFT SCHEMES AND ORDERS

- 10.1 The Schemes and Orders are published in draft and provide the opportunity for any person or organisation to object or support. You may also submit alternatives.
- 10.2 Any person wishing to support or object may do so by writing to:

Orders Branch, Transport,
Department of Economy Science and Transport,
Welsh Government,
Cathays Park,
Cardiff, CF10 3NQ.
- 10.3 Should you wish to object or support, your correspondence will be considered by the Project Team and we may need to consult with people and organisations outside the Welsh Government. As part of the process of consulting with the others we may pass information to them, including information you have given to us and your personal data. We will however, only disclose your personal details where it is necessary to do so to enable us to deal with issues you brought to our attention. Should the Scheme become the subject of a Public Local Inquiry (PLI), all correspondence would be copied to the Inspector of the PLI and kept in the PLI Library and become publicly available.
- 10.4 Any objections, supports or suggested alternatives should be despatched to arrive no later than 4 May 2016.

11 DECISION PROCESS

- 11.1 As part of the legal process, the Welsh Ministers would consider all of the responses to the draft Schemes and Orders and then decide whether to hold a Public Local Inquiry.
- 11.2 The decision as to whether or not to proceed to make the Schemes, Orders and associated CPO would then be taken by the Welsh Ministers after taking account the findings and recommendations of the independent Inspector, should a Public Local Inquiry be held.
- 11.3 Should the Schemes and Orders be made and the Scheme proceed to construction, the Welsh Ministers would, through their valuation agent, enter into negotiation with all affected landowners regarding compensation for the land and rights needed and where appropriate the carrying out of accommodation works on their retained land to mitigate the effect of the Scheme.