

Welsh Government

M4 Corridor around Newport

Strategic Environmental Assessment (SEA) Scoping Report

8908

Issue | 9 July 2013

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Job number 117300

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Contents

	Page
1 Introduction	2
1.1 Scoping	2
1.2 Background	3
1.3 Preparation of a draft Plan	6
1.4 Consequences of Doing Nothing	13
2 The draft Plan	17
2.1 Contents of the draft Plan	17
2.2 Approach to Reporting	17
3 SEA Scoping	19
3.1 Approach to SEA	19
3.2 Relevant Policies, Plans and Programmes	20
3.3 Baseline Information	26
3.4 Identifying Environmental Problems	27
3.5 Developing SEA Objectives	27
3.6 Assessment of Effects	28
3.7 Mitigation and Enhancement	32
3.8 Monitoring of Significant Effects	32
4 Consultation Programme	34
5 Next Steps	35

1 Introduction

The M4 motorway between Magor and Castleton falls well short of modern motorway design standards, particularly in relation to capacity and safety. Problems with congestion and unreliable journey times have been a fact of life on the M4 around Newport for many years.

On 26 June 2013, Edwina Hart AM CStJ MBE, Minister for Economy, Science and Transport, published the following written statement:

“Addressing the capacity and resilience issues on the M4 around Newport is the top transport challenge that we face in ensuring that Wales has an effective economic infrastructure which improves our competitiveness and access to jobs and services...As a result of ongoing discussions with the UK Government there has been a significant change in the assessment of the affordability of a major enhancement of the M4. Building on the extensive development and consultation work undertaken on M4 Corridor Enhancement Measures (CEM), we will be consulting formally over the summer with Natural Resources Wales in order to go out to public consultation this September with a finalised draft Plan and Strategic Environmental Assessment (SEA) Report. If implemented, the draft plan would lead to a motorway being built south of Newport.”

A draft Plan will present the Welsh Government’s preferred strategy alongside any reasonable alternatives to that preferred strategy, which will be subject to stakeholder and public consultation.

1.1 Scoping

This report sets out the proposed scope of a proposed Strategic Environmental Assessment (SEA) of the M4 Corridor around Newport draft Plan. An SEA Environmental Report of the draft Plan will be prepared, taking into consideration any comments received by consultation bodies in response to this Scoping Report.

The process will build upon work undertaken for the preparation of the National Transport Plan (NTP) in 2009 on the statement in the NTP SEA Environmental Report (2009) that:

“... Any such “subsidiary” SEA is likely to draw heavily upon the work already undertaken for the NTP, although there will be programme specific issues and assessment activities that will be required. Examples of where this may be the case include the studies to consider how transport issues around Wrexham, Cheshire and Deeside can be resolved and the consideration of a package of measures to improve the efficiency of the M4 in south-east Wales.”

The SEA will help inform the Welsh Government in its decision as to whether or not to adopt the draft Plan and would support further appraisal of options presented within any adopted draft Plan at a scheme (project) level.

This Scoping Report draws attention to a proposed Habitats Regulations Assessment (HRA) screening that will be undertaken, although not as part of this scoping exercise. A scoping exercise for Health Impact Assessment (HIA) and Equality Impact Assessment (EqIA) will also be undertaken separately.

1.2 Background

For many years, concerns have been raised regarding the potential for delays on the motorway and trunk road network in South Wales. In March 1989, the Secretary of State for Wales commissioned the South Wales Area Traffic Survey (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. As a consequence, a proposal for a new dual 3-lane motorway (known as the M4 Relief Road) was included in the Welsh Trunk Road Forward Programme in 1991.

Much assessment, appraisal and engagement has been undertaken to develop a motorway solution to the south of Newport since 1991 and a detailed history is provided within the M4 Corridor around Newport Welsh Transport Planning and Appraisal Guidance¹ (WelTAG) Appraisal Report Stage 1 (Strategy Level)².

In December 2004, the Minister for Economic Development and Transport reported on the outcome of his review of transport programmes, which he had undertaken to ensure a good strategic fit with 'Wales: A Better Country' and the Wales Spatial Plan. One of the conclusions of the review was that additional capacity was required on the M4 motorway in South East Wales, in order to reduce congestion, improve resilience and remove an obstacle to greater prosperity along the whole corridor through to Swansea and West Wales. In addition to widening the motorway north of Cardiff, the Minister announced proposals to develop a New M4 south of Newport between Magor and Castleton.

Following the Ministerial Review in November 2004, the New M4 Project was the subject of a thorough re-examination in order to ensure fit with current policies and to take account of physical and legislative changes. Three key activities were undertaken:

- A re-examination of route corridors considering, in particular, the implications and consequences of legislative changes and physical developments within the original project study area;
- An holistic review of the previously published Preferred Route (published 1997); and
- A review of the junction strategy.

The conclusion of these studies confirmed the route to the south of Newport as the optimal solution to tackling problems of congestion on the M4 corridor around Newport. Following the Preferred Route and Junction Strategy Review, a TR 111³ (April 2006) was published to protect a revised route corridor. A series of public exhibitions were held in April and May 2006 to explain the changes to the public and other stakeholders.

¹ Welsh Transport Planning and Appraisal Guidance, June 2008, Welsh Assembly Government

² M4 Corridor around Newport WelTAG Appraisal Report Stage 1 (Strategy Level), June 2013, Welsh Government, available at www.m4cem.com.

³ Once the preferred route is announced, Welsh Government serves a *statutory notice* (TR 111) on the local planning authorities requiring the line to be protected from development. The statutory blight rules come into play. This is enacted under Article 15 of the Town & Country Planning General Development Order 1995.

However, a written statement in July 2009 by the then Deputy First Minister Ieuan Wyn Jones announced that the New M4 was not affordable. The statement, however, accepted “*the need to urgently address safety and capacity issues on the existing route*” through the introduction of “*a range of measures*”. The M4 Corridor Enhancement Measures (CEM) Programme was thus initiated and this aimed to create a package of measures to deal with resilience, safety and reliability issues within the M4 corridor between Magor and Castleton. Under the M4 CEM Programme, a long list of possible solutions was explored. Packages that combine public transport, highway and other travel solutions were identified for appraisal. These included on line widening of the M4 between Junctions 24 and 29 as well as improvement to the existing road network to the south of the city centre and a new dual carriageway all-purpose road to the south of Newport.

As part of the M4 CEM Programme, a comprehensive engagement process was launched in September 2010 culminating in a public consultation, open to all, held between March and July 2012. During the engagement process, the Welsh Government and its project team conducted dialogue and deliberative sessions both with internal and external specialists and expert stakeholders, encompassing a diverse range of views and interests relating to transport in South Wales.

The appraisal/engagement processes during 2012 have shown that there are additional supporting measures available to address travel related problems within the M4 Corridor between Magor and Castleton. These were referred to as Common Measures. They comprise a mix of network improvements/management, demand management, alternative modes and smarter sustainable choices. An M4 CEM WelTAG Stage 1 (Strategy Level)⁴ Appraisal concluded that the following measures are worthy of further consideration:

- A new dual carriageway route to the south of Newport;
- Public transport enhancement; and
- Common measures.

Recent initiatives including discussions between Welsh Government and HM Treasury/Department for Transport, as well as the work of the Silk Commission⁵, have created potential funding opportunities for Welsh Government infrastructure projects. As a consequence, the decision was taken to further reconsider solutions to resolve capacity issues on the M4. Thus, in order to inform the strategy for the M4 Corridor around Newport, a further M4 Corridor around Newport WelTAG Stage 1 Appraisal has been undertaken of options that include M4 CEM short-listed measures, provision of new motorway capacity routed to the south of Newport, which could potentially be unrestrained by funding, public transport and complementary measures.

The M4 Corridor around Newport is shown in Figure 1.1.

⁴ Welsh Government, M4 Corridor Enhancement Measures (M4 CEM), WelTAG Appraisal Report Stage 1 (Strategy Level), Arup, March 2013

⁵ The Commission on Devolution in Wales which is reviewing the case for the devolution of fiscal powers and reviewing the powers of the National Assembly for Wales due to report in Spring 2014

This map illustrates the M4 corridor in South Wales, highlighting the route from Cardiff to the Severn Estuary. The M4 motorway is shown in blue, with its route marked by mileposts 23 to 30. Key locations along the route include Cardiff, Newport, and Caldicot. The map also shows the River Usk, the Severn Bridge, and the Severn Estuary. A scale bar indicates 0 to 3 km.

Key Locations and Features:

- Cardiff:** Cardiff Caerdydd, To Cardiff I Gaerdydd.
- Newport:** Newport Docks, Dociau Casnewydd, Newport CASNEWYDD.
- Caldicot:** Caldicot, Caldicot Level, Gwastadeddau Cil-y-coed.
- Severn Bridge:** Severn Bridge, Pont Hafren.
- Other Locations:** Risca Rhisga, Bettws, Malpas, Brynglas Tunnel, Twnnel Brynglas, Caerleon Caerllion, Cwmbran, Magor Magwyr.
- Roads:** A468, A467, A48, A449, A466, A46M.
- Waterways:** River Usk, Aton Wysg, Severn Estuary, Aber Hafren.
- Infrastructure:** Main South Wales to London Railway Line, Prif Reilffordd De Cymru i Lundain, Steelworks Access Road, Ffordd Fynediad y Gwaith Dur.

1.3 Preparation of a draft Plan

1.3.1 Transport Problems on the M4 Corridor

The Welsh Government has looked in detail at what travel related problems exist on the M4 Corridor Magor to Castleton, and asked people, stakeholders and those involved in managing transport in and around Newport what they thought the problems amount to. The problems have been defined as:

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, with 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.

1.3.2 Transport Planning Objectives

Having due regard for the WTS Outcomes and Strategic Priorities, the Welsh Government has identified the following Transport Planning Objectives (TPOs) for the M4 corridor around Newport between Magor and Castleton:

- TPO 1 Safer, easier and more reliable travel east-west in South Wales.
- TPO 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.
- TPO 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.
- TPO 4 Best possible use of the existing M4, local road network and other transport networks.
- TPO 5 More reliable journey times along the M4 Corridor.
- TPO 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.
- TPO 7 Improved safety on the M4 Corridor between Magor and Castleton.
- TPO 8 Improved air quality in areas next to the M4 around Newport.
- TPO 9 Reduced disturbance to people from high noise levels, from all transport modes and traffic within the M4 Corridor.
- TPO 10 Reduced greenhouse gas emissions per vehicle and/or person kilometre.
- TPO 11 Improved travel experience into South Wales along the M4 Corridor.
- TPO 12 An M4 attractive for strategic journeys that discourages local traffic use.
- TPO 13 Improved traffic management in and around Newport on the M4 Corridor.
- TPO 14 Easier access to local key services and residential and commercial centres.
- TPO 15 A cultural shift in travel behaviour towards more sustainable choices.

Arup has reviewed the objectives, which have been agreed as a result of various earlier analyses and consultation/engagement exercises during the New M4 Project and the M4 CEM Programme. For the current circumstances, the objectives as previously proposed are considered to remain wholly relevant to the M4 transport corridor around Newport and, as such, represent a good framework within which to appraise the relative performance of strategic options for improvement of operating conditions/transport provision within the M4 Corridor around Newport.

1.3.3 Development of options

Having established that there are problems with regard to transport operations on the M4 corridor around Newport and that there is a need to tackle these, the Welsh Government has involved others in exploring a very wide range of possible ways of solving these problems and of meeting the objectives set for the M4 Corridor around Newport. A long list of possible solutions has been explored.

As a result of this process, it has been acknowledged that, in addition to provision of additional east/west highway capacity on the strategic road network and more general network management / improvement, public transport enhancement will contribute to the objectives for the M4 Corridor around Newport.

A draft Plan will present the Welsh Government's preferred strategy alongside any reasonable alternatives to that preferred strategy, which would be subject to public consultation. A Strategic Environmental Assessment (SEA) Environment Report, Habitats Regulations Assessment (HRA), Health Impact Assessment (HIA) and Equality Impact Assessment (EqIA) for the draft Plan would also be subject to public consultation alongside a draft Plan Consultation Document.

On 1 May 2013, in response to a question at Plenary, the Minister stated that it is the intention to make a statement before the summer recess with regard to the M4 Relief Road. Earlier work has resulted in a TR 111 protected route for a new section of motorway to the south of Newport. This route is to be considered further along with a dual carriageway all-purpose road that has emerged as a result of the M4 CEM WelTAG Stage 1 appraisal. Given the potential for Welsh Government to fund major infrastructure works, consideration has also been given to the provision of a 3-lane motorway along the alignment of the all-purpose road.

The options that were short-listed for appraisal included:

- New section of 3-lane motorway to the south of Newport following the protected (TR 111) route;
- New dual 2-lane all-purpose road to the south of Newport following the Red route alignment in the M4 CEM Programme;
- New section of 3-lane motorway to the south of Newport along a similar alignment to the all-purpose Red Route;
- Public transport measures; and
- Complementary network management and/or network improvement measures.

Each option is briefly described below.

1.3.4 Motorway following TR 111 Protected Route – The Black Route

This option comprises the construction of a new 3-lane motorway mainly following the protected TR 111 route, between Junctions 23 and 29, including a new crossing of the River Usk south of Newport. The River Usk is designated as a Special Area of Conservation (SAC).

The TR 111 route to the south of Newport has remained protected for planning purposes since April 2006 up to the present time.

The alignment of this proposed new section of motorway has been developed following extensive consultation, investigation and analysis. The aim is to minimise the impact on the environment, whilst fully meeting current motorway design and safety standard. Minor changes to the alignment of the TR111 protected route could still be made, subject to further investigation if this option is taken forward. This motorway solution would be delivered in as one scheme.

The junction strategy will be further investigated at a scheme (project) level if this option is taken forward for further appraisal.

The alignment of the new section of motorway is shown in Figure 1.2.

1.3.5 Dual 2-lane All-Purpose Road – The Red Route

This option involves the construction of an additional high quality road to the south of Newport, as a dual carriageway solution. The route aims to minimise negative impacts on local communities and the environment. As a dual carriageway on this corridor alignment, the road could be delivered in phases by tying into the existing road network in Newport. Delivery could thus be phased with availability of funding. However, the main benefits will only be realised when the route is complete.

This road will require a new crossing of the River Usk, which is designated as a Special Area of Conservation (SAC).

The alignment of the route is such that the impact on the Port of Newport is minimised. However, there could be significant impact upon the Newport Council's Docks Way landfill site. There are also on-going and potential further development sites along this route. There could also be some impact upon the Duffryn residential area, in terms of property demolition and increased noise and air pollution.

The junction strategy will be further investigated at a scheme (project) level if this option is taken forward for further appraisal.

The alignment of the road is shown in Figure 1.2.

1.3.6 Motorway along Alternative Alignment to the South of Newport – The Purple Route

In order to fully represent the highway options to the south of Newport, this option comprises a 3-lane motorway along a similar route to that proposed for the dual 2-lane all-purpose road.

This new motorway will require a new crossing of the River Usk, which is designated as a Special Area of Conservation (SAC). There are on-going developments and potential further development sites along the alignment of this route.

The junction strategy will be further investigated at a scheme (project) level if this option is taken forward for further appraisal.

The alignment of this route is shown in Figure 1.2.

1.3.7 Public Transport Measures

Studies have shown that new or improved public transport services are likely to have only minimal impact with respect to reducing traffic on the M4⁶. Generally, investment in public transport measures is more likely to be aimed at achieving wider benefits than relieving motorway traffic.

The Welsh Government has commissioned a separate study and report on proposals to develop a metro system for South East Wales. The report will focus on how a metro system could support economic growth and regeneration at key locations across South East Wales.

⁶ M4 CEM Public Transport Overview (2012) [revised February 2013]

1.3.8 Complementary Measures

In addition to the highway infrastructure improvement options, there are additional complementary measures that could assist in alleviating travel related problems within the M4 Corridor between Magor and Castleton. These could comprise a mix of network improvements/management, demand management, alternative modes and smarter sustainable choices.

The provision of a new section of motorway to the south of Newport between Junction 23 and Junction 29 would enable consideration to be given to the re-classification of the existing M4 around Newport with a view to improvement of accessibility along the northern fringe of the City. The potential for junction improvements along the existing M4 will be dependent upon the option taken forward.

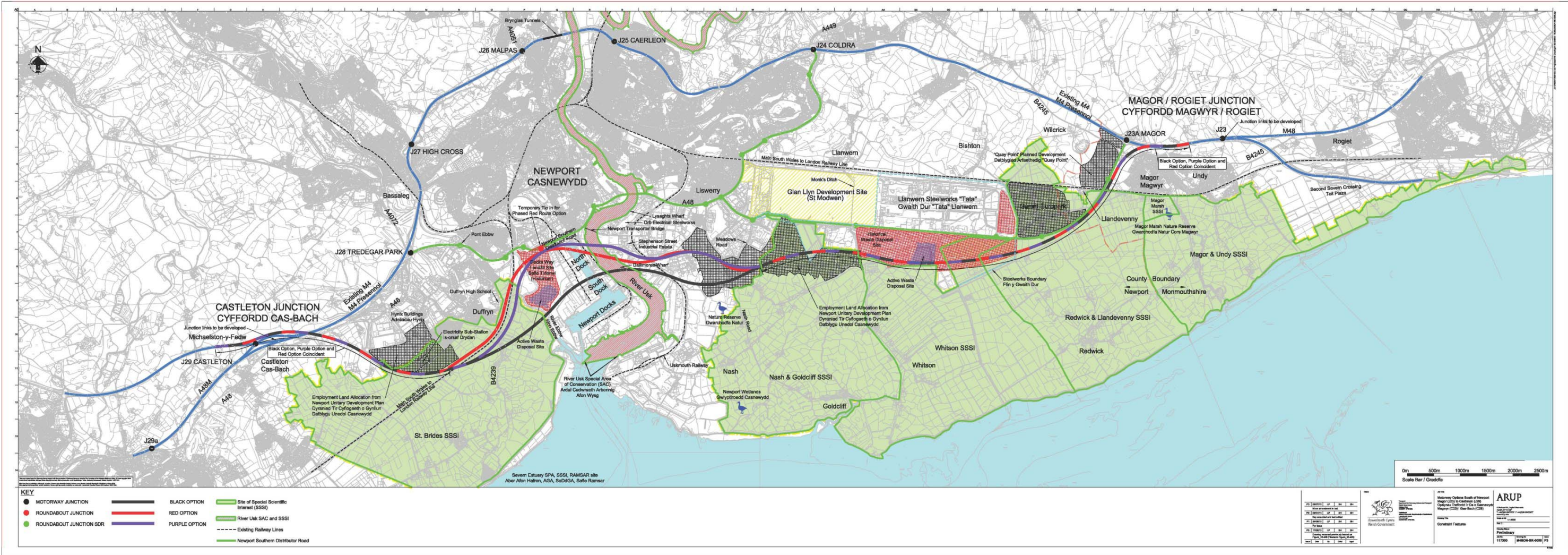
At the New M4 Project Public Information Exhibitions held at Magor in May 2006, members of the public expressed the desire for a highway connection between the B4245 Caldicot Road and the M48 corridor in the vicinity of east Magor / Rogiet. Such a connection is perceived publicly to be a solution to reported peak period delays affecting traffic wishing to join the M4 at junction 23A.

Having due regard for the previous work, the complementary measures are shown in Table 1.1.

Table 1.1: Complementary Measures

Complementary Measure	Description
Re-classify existing M4 between Magor and Castleton (only applicable if a new motorway is provided)	Re-classify the existing motorway as a trunk road, which could enable traffic management, safety and junction improvement measures. These will include value engineering of the proposed interchanges at Magor and Castleton.
M48 – B4245 Link (common to all options)	New single carriageway link between the M48 and B4245. This would potentially provide relief to Junction 23a and to the local road network. It may also facilitate the introduction of a park and ride facility at Severn Tunnel Junction.
Provide cycle friendly infrastructure (common to all options)	Promoting the use of cycling as an alternative to the car for journeys of up to three miles. This is likely to have a positive impact upon physical fitness and social inclusion.
Provide walking friendly infrastructure (common to all options)	Promoting the use of walking as a primary modal choice for car users undertaking journeys of up to two miles. This is likely to have a positive impact upon physical fitness and social inclusion.

Figure 1.2: Black, Purple and Red Route shown within the local study area for the SEA and main constraints around Newport



The M4 Corridor around Newport WelTAG Appraisal Report Stage 1 (Strategy Level)⁷ that has been undertaken and is available to view at www.m4cem.com, concludes that:

- The Red Route should not be taken forward for further appraisal;
- The Black Route should be taken forward as part of the preferred strategy;
- Any further public transport enhancements should be considered by the delivery team(s) set up for the purpose by the Welsh Government; and
- Complementary measures should be considered further.

1.4 Consequences of Doing Nothing

Analysis shows that, in 2012 during peak periods, traffic flows exceed 100% of capacity along sections of the M4 around Newport⁸. Once flows reach above 100% of capacity, traffic can expect severe operational problems over longer periods. The more congested road conditions become, the greater the risk of incidents and accidents occurring. In the future, the situation is expected to deteriorate further. Forecasts of future traffic volumes show that, in the 'Do Minimum' situation⁹, traffic volumes on most links would increase by 30-45% by 2035. This suggests that the motorway around Newport will be heavily congested, with all sections between J23a and J29 experiencing flows above 100% of capacity during weekday peak periods¹⁰. Congestion on the M4, particularly around Cardiff and Newport, is sighted by the business community in South Wales as a barrier to economic growth. Where congestion increases, the cost of transport for businesses, commuters and consumers and economic performance can be affected. Increased congestion will also result in higher journey times for commuters, reducing the effective travel to work area.

In terms of the environment, that the presence of the M4 has adverse impacts on the environment is evidenced by the fact that four out of Newport's seven Air Quality Management Areas (AQMAs) are associated with the M4. Higher traffic volumes along the M4 are likely to contribute not only to poor air quality but also noise pollution, compromising the aural amenity of neighbouring residential communities. Assuming no improvements to vehicle emissions technology, the increased flows and stop start conditions will give rise to more vehicle emissions along these routes. Alongside the motorway at Newport, there are also 'Noise Action Planning Areas' (NAPAs). These also need to be addressed. Figure 1.3 identifies the AQMAs in the local study area around Newport. Figure 1.4 presents the recently published (December 2012) Wales Noise Mapping. The noise maps are being used to help Welsh Government develop and implement a noise action plan for Wales. This is due to be published in 2013.

⁷ M4 Corridor around Newport WelTAG Appraisal Report Stage 1 (Strategy Level), June 2013, Welsh Government

⁸ Source: Arup analysis 2012

⁹ The Do Minimum, in this case, includes all recent network modifications (such as the Junction 24 improvement and the Variable Speed Limit system) and any committed interventions (such as the Junction 28/Bassaleg Roundabout/Pont Ebbw Roundabout improvement and the Steelworks Access Road).

¹⁰ Source: Arup analysis 2012

The Environmental Report will describe and assess the ‘Do Minimum’ situation, the draft Plan and its reasonable alternatives, including the complementary measures. Assessments will be made against the ‘Do Minimum’ scenario as well as comparing the draft Plan with the reasonable alternatives.

Figure 1.3: Air Quality Management Areas in Newport

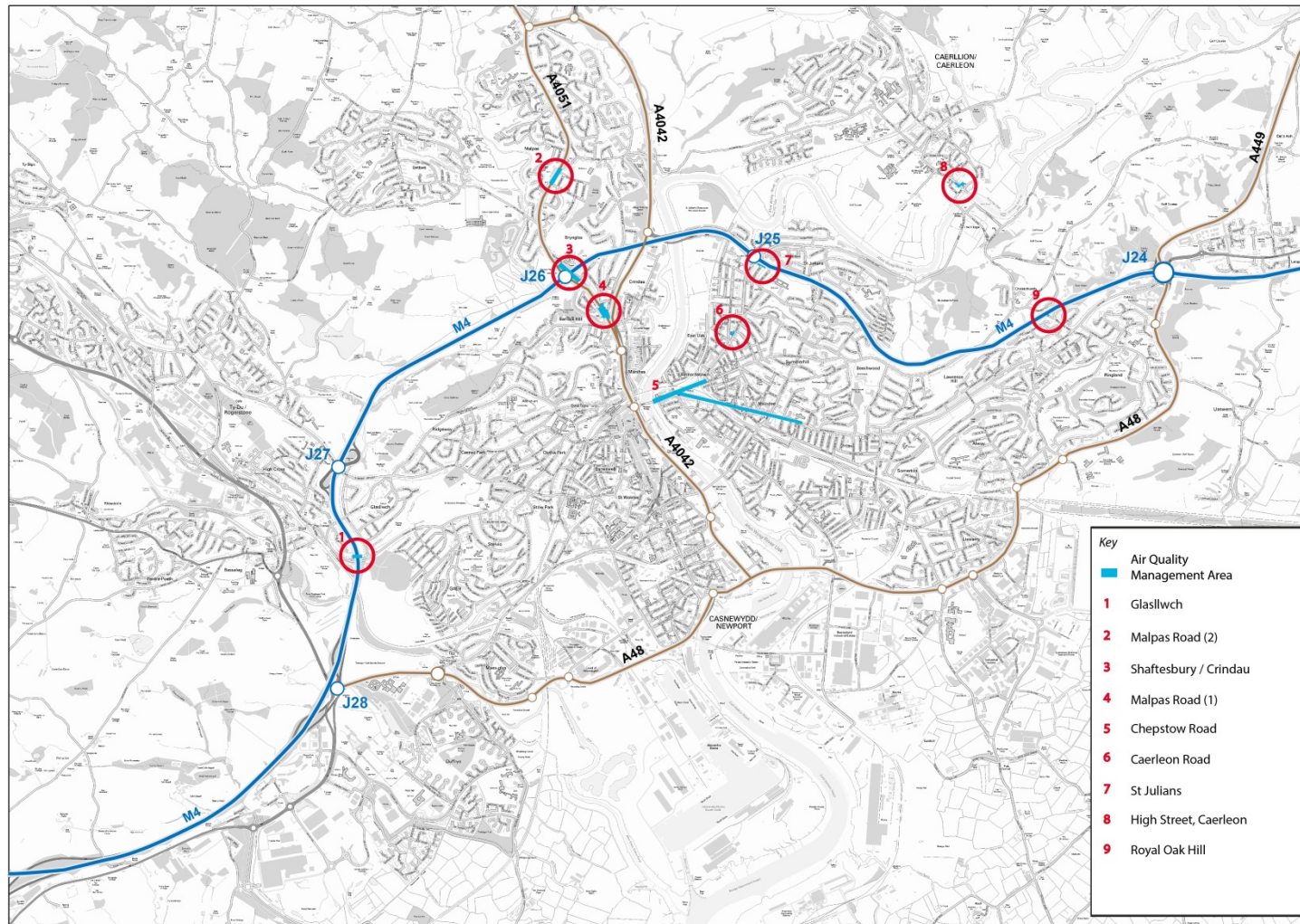
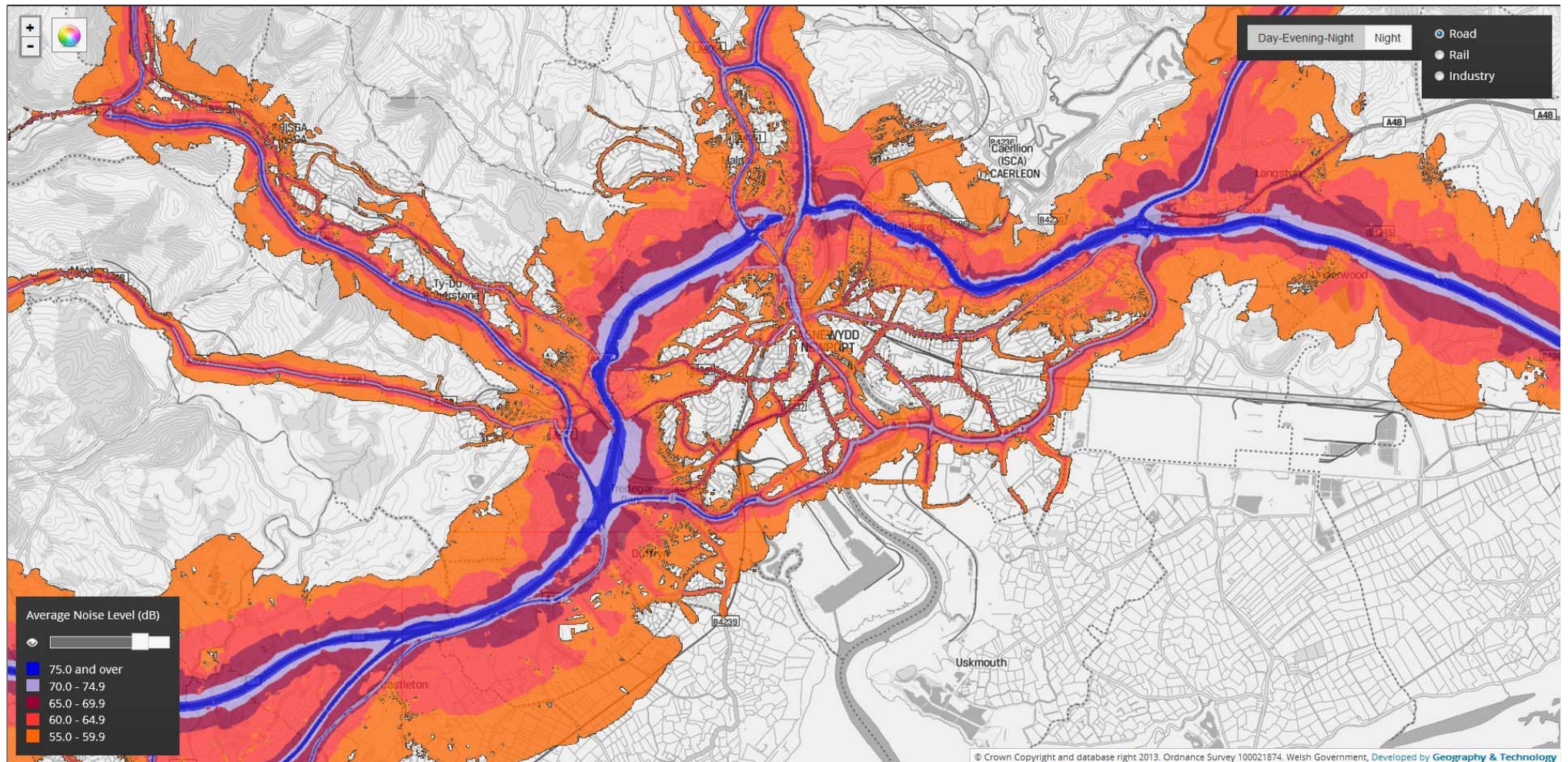


Figure 1.4: Wales Noise Mapping (Road) for Newport



2 The draft Plan

2.1 Contents of the draft Plan

The draft Plan for the M4 Corridor around Newport will comprise:

- New section of 3-lane motorway between Magor and Castleton to the south of Newport along the corridor of the Black Route; and
- Complementary Measures.

The dual 2-lane all-purpose road (Red Route) and a motorway solution along a similar alignment (Purple Route) are considered to comprise reasonable alternatives. These will also be assessed alongside the 'Do-Minimum' scenario, for the purposes of Strategic Environmental Assessment.

2.2 Approach to Reporting

2.2.1 Strategic Environmental Assessment

SEA is a process that provides for the high level protection of the environment, by ensuring that the integration of environmental considerations into the preparation of plans and programmes and to contribute to the promotion of sustainable development and environmental protection.

SEA for certain plans and programmes is a legal requirement under the SEA Directive (2001/42/EC). In Wales, this is transposed and implemented through the Environmental Assessment of Plans and Programmes (Wales) Regulations 2004 (referred to as the SEA Regulations in this report).

The statutory requirements of the SEA process are established in the SEA Regulations. WelTAG Appendix E.2 describes the approach to be taken for SEA on Welsh transport programmes that will be used in the assessment and it describes the SEA process in terms of five main stages:

- Stage A: Setting the context and objectives of the plan, establishing the baseline and deciding on the scope;
- Stage B: Developing and refining alternatives and assessing effects;
- Stage C: Preparing an Environmental Report on the likely significant effects of the plan;
- Stage D: Consulting on the Draft Plan and the Environmental Report;
- Stage E: Monitoring the significant effects of implementing plan on the environment.

In accordance with the SEA Regulations, a statement will be published to outline how the results of consultation under Stage D have been addressed. As a strategy or programme, the Welsh Government considers that the M4 Corridor around Newport draft Plan falls within the Strategic Environmental Assessment (SEA) Regulations 2004 and that an SEA of the Programme is required. In undertaking the SEA, the Welsh Government will also employ the detailed SEA advice

produced by the Office for the Deputy Prime Minister (now Communities and Local Government)¹¹.

A separate Habitats Regulation Assessment is proposed; which is described in more detail below, and subject to a separate screening process.

2.2.2 Habitats Regulations Assessment

In Wales, the Conservation of Habitats and Species Regulations¹² (referred to as the ‘Habitats Regulations’ in this report), implements the EU ‘Habitats Directive’ (Directive (92/43/EEC) on the Conservation of natural habitats and of wild flora and fauna) and certain elements of the ‘Birds Directive’ (2009/147/EC). This legislation provides the legal framework for the protection of habitats and species of European importance, identifying a network of protected sites.

Protected sites comprise Special Areas of Conservation (SAC) and Special Protection Areas (SPA). The Habitats Regulations are also applied to candidate SACs (cSAC), potential Special Protection Areas (pSPA) and Ramsar sites (designated under the 1971 Ramsar Convention for their internationally important wetlands). These sites are referred to collectively in this report as European sites.

Regulation 9(5) of the Habitats Regulations requires that a ‘competent authority’ must consider the requirements of Habitats Directive in exercising any of its functions. Article 6(3) of the Habitats Directive defines the requirements for assessment of plans and projects potentially affecting European sites. This requires that:

‘a competent authority, before deciding to undertake, or give any consent, permission or other authorisation for a plan or project which is likely to have a significant effect on a European site, and is not directly connected with or necessary to the management of that site, must make an Appropriate Assessment of the implications for that site in view of that site’s conservation objectives’

The Welsh Government considers that the M4 Corridor around Newport draft Plan falls within the definition of a “plan” as defined by the Habitats Directive and the Programme will therefore require consideration in a Habitats Regulation Assessment (HRA). HRA is a separate, discrete requirement to the SEA. As a result, an HRA screening at a strategic level will be undertaken as a separate assessment.

¹¹ A Practical Guide to the Strategic Environmental Assessment Directive, ODPM, 2005

¹² The Conservation of Habitats and Species Regulations 2010, SI 490, 2010

3 SEA Scoping

The SEA Regulations require responsible authorities, when deciding on the scope and level of detail of the information that must be included in an SEA Environmental Report, to consult with the statutory consultation bodies. Where a consultation body wishes to respond, it must do so within the period of 5 weeks beginning with the date on which the consultation begins.

The Welsh Government is therefore consulting the following organisations on the scope of the SEA:

- Natural Resources Wales;
- Cadw;
- Natural England; and
- Environment Agency.

Other stakeholders, organisations and individuals, including the general public, will be consulted on the SEA Environmental Report. The SEA Environmental Report will be made available for comment in paper copy and electronically on the Welsh Government consultation website and designated Arup hosted M4 Corridor around Newport website (currently www.m4cem.com). In addition to widespread publicity in the South Wales region, invitations to respond to the consultation will be sent to over 1,500 contacts that are stored on the Arup database, including individuals and organisations who have an interest in transport in South Wales, or who have registered an interest in and/or responded to previous M4 CEM consultations. This list includes local authorities, inland drainage boards and environmental non-governmental organisations such as RSPB, Wildlife Trust and Friends of the Earth.

3.1 Approach to SEA

In accordance with the Regulations, the SEA will satisfy the following stages of assessment, utilising data gathered for the draft Plan to date:

1. Identifying other relevant plans, programmes and environmental protection objectives;
2. Collecting and updating further baseline information over an appropriate study area;
3. Identifying any further environmental problems not identified as part of the M4 CEM programme; and
4. Developing SEA objectives.

This refers to the four parts of the Scoping Stage of SEA. Details of the full SEA methodology applied will be described in the Environmental Report.

The objectives of the draft Plan specifically relate to the M4 corridor around Newport between Magor and Castleton. However, the spatial scope for this assessment is wider and is focused on;

- Newport – the existing M4 route runs through Newport, as do the principal highway infrastructure options of the draft Plan;

- Cardiff – the city is likely to experience indirect and direct effects of the construction and operation of the draft Plan measures;
- The M4 Corridor and the rest of South Wales communities along the rest of the M4 corridor and in wider South Wales are also likely to be affected to a greater or lesser extent as a result of the draft Plan; and
- Wales-England cross-border issues including North Bristol and South Gloucestershire. The programme will have significant effects on the reliability of journey times between Cardiff/Newport and Bristol. This could affect access to employment, open space and facilities for residents in both areas.

By the nature of the draft Plan, the environmental effects are most likely to be experienced at a local, regional or national (Wales and the UK) geographic scale. As such, the extent of the assessment of the strategic environmental impacts will be tailored as appropriate to reflect the potential varying scales of influence. However, it is expected that the majority of significant environmental issues and focus for the assessment of the strategic environmental impacts will be around the local environmental study area indicated in Figure 1.2. The area contains a range of environmental designations and constraints including those of an international protected status and these will be fully acknowledged in the Environmental Report.

In terms of temporal scope, the assessment will examine three spatial scales: Short term effects: effects expected in the next 0 - 4 years; Medium term effects: effects expected in the next 5- 9 years; and Long term effects: effects expected in the next 10+ years. These have been chosen to reflect the timescales of the programme and also to reflect the long term nature of some of the environmental effects caused by transport.

3.2 Relevant Policies, Plans and Programmes

The SEA Regulations require the Environmental Report to consider the environmental protection objectives that are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation.

The SEA Scoping Report for the National Transport Plan (February 2009) incorporated a thorough review of national, regional and local plans and programmes¹³. The topics covered in the National Transport Plan SEA are broadly in line with those to be addressed in the SEA for the draft Plan.

The review of plans and programmes therefore includes an assessment of plans, programmes and policies that were considered as part of the National Transport Plan SEA and which have the most direct relevance to the draft Plan SEA. The review also considers policies and guidance that has been published or amended since the publication of the National Transport Plan SEA.

A review of relevant policies, plans and programmes (PPPs) has been carried out to identify environmental objectives which may provide constraints or synergies with the draft Plan options. The document review includes:

- International and EU legislation;

¹³ Table 2 National Transport Plan SEA Scoping Report, February 2009

- National legislation and policy (UK and Wales specific matters); and
- Relevant Sub-Regional and Local plans.

A list of all the PPPs that are reviewed is provided in Table 3.1.

The review of plans and programmes identified environmental objectives that might be relevant for the draft Plan. It also identified any environmental problems or issues that could be addressed or affected by the option taken forward by the draft Plan.

The review findings will be summarised in terms of the environmental topic areas, together with information about the current and future environmental baseline.

A definitive list of relevant policies, plans and programmes will be provided in the Environmental Report. As part of the scoping exercise, we welcome any information from consultees in identifying additional plans and programmes that should be considered as part of the SEA.

Table 3.1: Plans, programmes and policies

Relevant Plans, Policies and Programmes
Transport
EU Directive 2009/28/EC Promotion of the use of energy from renewable sources European Commission White Paper Roadmap to a Single European Transport Area (EC, 2011) European Commission Green Paper “Towards a new culture for urban mobility” (2007) Smarter Choices – Changing the Way We Travel (July 2004) The Future of Transport (2004) – UK white paper on transport Towards a Sustainable Transport System: Supporting Economic Growth in a Low Carbon World (DfT, 2007) UKT1 Carbon Reduction Strategy for Transport, Low Carbon Transport: A Greener Future, July 2009 Prioritised National Transport Plan for Wales, 2011 National Transport Plan for Wales, 2010 The Wales Transport Strategy (WTS) (2008) One Wales: Connecting the Nation. The Wales Freight Strategy (WFS) (May, 2008) Technical Advice Note (TAN) 18 – Transport (2007) Draft Road Safety Delivery Plan Consultation, Welsh Government 2012 Smarter Choices: Wales (Feb 2007) A Walking and Cycling Action Plan for Wales (2009-2013) Planning Policy Wales (Edition 4, February 2011) South East Wales (Sewta) Regional Transport Plan (January 2009) Sewta Rail Strategy Review and Roll Forward (2011) Wales Route Utilisation Strategy (2008) The Intercity Express Programme: Expanding and improving the rail network (2012)

Relevant Plans, Policies and Programmes

Air Quality

Cleaner Air for Europe (CAFE) Directive (2008/50/EC)
 National Emission Ceilings Directive (2001/81/EC) amended by Council Directive 2006/105/EC
 Gothenburg Protocol
 Programme of measures: UK national programme to combat acidification, eutrophication and ground level ozone (Feb 2007)
 The National Emission Ceilings Regulations 2002
 Air Pollution: Action in a Changing Climate (March 2010)
 The Environment Act 1995
 Programme of measures: UK national programme to combat acidification, eutrophication and ground level ozone (Feb 2007)
 The Air Quality Standards (Wales) Regulations 2010
 Air Quality (Amendment) (Wales) Regulations 2002
 Air Quality and Climate Change: a UK perspective (2007)
 The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (July 2007)
 Air Quality Action Plan for Newport 2008
 Environment Strategy for Wales 2006: Air Quality Policy
 Local Air Quality Management Policy Guidance Wales (LAQM. PG09) and Addendum to Policy Guidance (LAQM. PG(09)) 2012

Climatic Factors, Including Greenhouse Gas Emissions and Adaptation to the Effects of Climate Change

Adapting to Climate Change in Europe – Options for EU Action – (EC, 2007)
 Climate for a transport change. TERM 2007: indicators tracking transport and environment in the European Union (EEA, 2008)
 European Commission's Action and Renewable Energy (CARE) Package
 Climate Change Act 2008
 The Planning Response to Climate Change. Advice on better Practice (2004)
 Climate Change Strategy for Wales 2010-2020 (Oct 2010)
 Delivery Plan for Emission Reduction: Climate Change Strategy for Wales (Oct 2010)
 Adaption Delivery Plan: Climate Change Strategy for Wales (Oct 2010)
 One Wales, One Planet: Sustainable Development Scheme Pt2, May 2009
 Climate Change Risk Assessment for Wales (Jan 2012)
 The Carbon Plan: Delivering our Low Carbon Future (2011)
 Policy Statement: Preparing for a changing climate (Oct 2011)
 The Planning Response to Climate Change. Advice on better Practice (2004)
 The Stern Report (2007)
 UK Climate Change Programme: Tomorrow's Climate Today's Challenge (2006)
 UKT1 Carbon Reduction Strategy for Transport, Low Carbon Transport: A Greener Future (July 2009)
 Wales Changing Climate, Challenging Choices: The impacts of climate change in Wales from 2000 to 2080

Relevant Plans, Policies and Programmes

Noise and Vibration

EU Directive 2002/49/EC relating to the Assessment and Management of Environmental Noise – The Environmental Noise Directive (2002)
 The Environmental Noise Directive (END) Noise Action Plan for Transport – Consultation Report and Plan (2009)
 The Environmental Noise (Wales) (Amendment) Regulations 2009
 Cardiff and the Vale of Glamorgan Agglomeration Action Plan
 Railway Action Plan for Wales
 Roads Action Plan for Wales
 Noise Action Planning Priority Areas (NAPPAs) for road traffic noise and railways in Wales
 Noise action planning priority areas - Roads and Railways (South East Wales)
 Technical Advice Note (TAN) 11 – Noise (1997)

Biodiversity, Fauna and Flora

The Environmental Liability Directive : Directive 2004/35/EC – Environmental Liability
 Environmental Protection Act
 Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)
 Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979)
 Directive 2009/147/EC- Birds Directive
 The Protection of Badgers Act 1991
 Convention on Biological Diversity, Rio de Janeiro (1992)
 Ramsar Convention on wetlands of international importance especially as waterfowl habitat (1971)
 Environmental Liability Directive
 Countryside and Rights of Way Act 2000
 The Conservation of Habitats and Species Regulations (2010, as amended)
 EU Directive 79/409/EEC on the Conservation of Wild Birds
 EU Directive 92/43/EEC – Habitats Directive
 EU Biodiversity Strategy (EU, 2011)
 Earth Science Conservation in Great Britain: A Strategy (Nature Conservancy Council, 1990)
 UK Biodiversity Action Plan – UK BAP (DEFRA, 1994)
 UK BAP Post 2010 Biodiversity Framework July 2012
 UK Forestry Standard: The Governments Approach to Sustainable Forestry (FC, 2004)
 Wildlife and Countryside Act (1981) (as amended)
 Woodlands for Wales – The Strategy for woodlands and trees , (2009)
 CCW Priority Habitats of Wales (2003)
 Ecological Connectivity, CCW, September (2006)
 TAN 5 – Nature Conservation and Planning (2009)
 Trunk Road Estate Biodiversity Action Plan 2004-2014 (2004)
 Wales Biodiversity Framework (Wales Biodiversity Partnership, 2007)
 Natural Environment and Rural Communities Act 2006

Soil

EC Thematic Strategy for Soil protection 2007
 Soil: a precious resource (2007) Environment Agency
 The Welsh Soils Action Plan (Consultation Draft, 2008)

Relevant Plans, Policies and Programmes

Water, Including Quality, Quantity and Flood Risk

EU Directive 2000/60/EC Establishing a Framework for the Community Action in the Field of Water Policy – The Water Framework Directive
 EU Directive 2007/60/EC on the Assessment and Management of Flood Risks
 A Better Environment, Healthier Fisheries: Better Fisheries for our nations 2006-2011 (EA, 2006)
 Cleaner Coasts, Healthier Seas: Working for a better marine environment 2005-2011 (EA, 2005)
 TAN 14 - Coastal Planning (1998)
 TAN 15 - Development and Flood Risk (2004)
 Draft Strategy for Wales on Integrated Coastal Zone Management (ICZM)
 The Severn Estuary Shoreline Management Plan Review 2010
 River Usk Catchment Abstraction Management Strategy (CAMS), 2007
 Severn Estuary Flood Risk Management Strategy
 Severn River Basin Management Plan – Environment Agency 2009
 River Usk SAC Core Management Plan - CCW 2008
 Wye and Usk Catchment Flood Management Plan 2010

Material Assets, including Resource Efficiency and Waste

EU Directive 2008/98/EC on waste (Waste Framework Directive)
 EU Directive 99/31/EC - Waste to Landfill
 Hidden Infrastructure (EA 2007)
 Report on the Thematic Strategy on waste prevention and recycling (Jan 2011)
 Minerals Planning Policy Wales (2000)
 Minerals Technical Advice Note (MTAN) 1 - Aggregates (2004)
 Remediation of Contaminated Land (2001)
 TAN 21 - Waste (2001)
 Towards Zero Waste: The Overarching Waste Strategy Document for Wales, 2010

Cultural Heritage and the Historic Environment, Including Architectural and Archaeological Heritage

The Welsh Historic Environment: Position Statement 2007
 Traffic Management in Historic Areas (Cadw, 2003)
 Wales Tourist Board - Cultural Tourism Strategy for Wales (2003)
 Welsh Office Circular 1/98: Planning and the historic environment: directions by the Secretary of State for Wales
 Welsh Office Circular 60/96 Planning and the Historic Environment – Archaeology
 Welsh Office Circular 61/96 Planning and the Historic Environment - Historic Buildings and Conservation Areas

Landscape and Townscape, including Light Pollution

European Landscape Convention (Council of Europe)
 Countryside and Rights of Way (CROW) Act, (2000)

Relevant Plans, Policies and Programmes

Sustainable Development

The UN Millennium Declaration and Millennium Development Goals (2002)

World Summit on Sustainable Development - Earth Summit leading to the Johannesburg Plan of Implementation (Johannesburg, 2002)

Mainstreaming sustainable development – The Government’s vision and what this means in practice (2011)

The Future We Want: Rio +20 Outcome Document (2012)

EU Sustainable Development Strategy (2006)

One future: different paths – UK Shared Framework for Sustainable Development (2005)

Securing the Future – UK Government Sustainable Development Strategy (2005)

Beyond Boundaries: Citizen-Centred Local Services for Wales (2006)

Environment Strategy for Wales (2006) and Environment Strategy Action Plan 2008 – 2011

Making the Connections: Delivering better services in Wales (2004)

One Wales: One Planet, Sustainable Development Scheme of the Welsh Assembly Government 2009

People, Places, Futures - The Wales Spatial Plan (2008 update)

Planning Policy Wales Edition 4 (February 2011)

Sustainable Development Indicators for Wales, 2007.

The Sustainable Development Action Plan 2004 – 2007 (2004)

Programme for Government; Welsh Government (2011)

Welsh Assembly Integration Tool (2002)

Report of the United Nations Conference on Sustainable Development Rio de Janeiro 2012

Environment and Sustainability Programme, Welsh Government, 2011

Newport Unitary Development Plan (Adopted Plan, 2006) and Newport Local Development Plan (Revised Deposit Plan, 2013)

Monmouthshire Unitary Development Plan (Adopted Plan, 2006) and Local Development Plan (Deposit, 2012)

Health, Social Care and Wellbeing Strategy 2011-2014. Newport’s Healthy Future, Newport City Council Aneurin Bevan Local Health Board, One Newport, Healthy Newport.

The Community Strategy: Feeling Good About Newport (2010-2020)

3.3 Baseline Information

The SEA Regulations require a discussion of the ‘relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme’ (Annex 1 (b)). The baseline provides the reference point for predicting and monitoring the likely effects of the draft Plan options. In this context, the baseline means the prevailing characteristics of the current situation.

Baseline information has been collected during the development of the draft Plan, building on assessments undertaken as part of the New M4 Project and M4 CEM Programme (see available reports, appraisals and assessments at www.m4cem.com). An assessment of baseline information has been undertaken and will be updated as part of the preparation of the Environmental Report. This will include a review of relevant policies, plans and programmes, which contain a range of background data and information. In addition, a range of social, environmental and economic data has been collected to inform the M4 CEM and M4 Corridor around Newport WelTAG Stage 1 (Strategy Level) appraisal process.

Key issues have been identified as a result of the review of environmental baseline information and will be presented as part of the consideration of each environmental topic area. Issues can be any problems or uncertainties that need to be understood and addressed before the set of measures can be confidently considered to be sustainable. Issues can be positive or negative, and will help to identify enhancement opportunities as well as measures to minimise detrimental impacts. Baseline information identifies the current state, trends and future baseline, data gaps and uncertainties, and key issues of each SEA topic.

The SEA topics, as described in the National Transport Plan SEA Scoping Report, will include:

- Air quality
- Climatic factors, including greenhouse gas emissions and adaptation to the effects of climate change;
- Noise and vibration;
- Biodiversity, fauna and flora;
- Population, including severance and accessibility;
- Human health, including physical fitness, security and safety;
- Soil;
- Water, including quality, quantity and flood risk;
- Material assets, including resource efficiency and waste;
- Cultural heritage and the historic environment, including architectural and archaeological heritage;
- Landscape and townscape, including light pollution; and
- The inter-relationships of the above.

3.4 Identifying Environmental Problems

The draft Plan, its reasonable alternatives and the do-minimum scenario will be assessed against the relevant SEA criteria.

As the transport sector has wide ranging effects across the range of environmental topics it is not possible to scope out any of the topics from the assessment process. The SEA will therefore place equal emphasis on all the SEA topics. These topics will form the basis for identifying relevant environmental problems in response to the baseline conditions.

3.5 Developing SEA Objectives

The proposed SEA Objectives, in line with the National Transport Plan and the draft Plan aims and goals, are summarised in Table 3.2.

It is important to note that these proposed SEA Objectives will be updated as result of the policy and plans update review and further review of the environmental baseline data collected for the preparation of the Environmental Report.

Table 3.2: Proposed SEA Objectives

No.	NTP SEA Objective ¹⁴	M4 Corridor Aims and Goals	Proposed SEA Objective
1	Minimise transport related air pollution	Improved air quality in areas next to the existing M4 around Newport	Improved air quality in areas next to the existing M4 around Newport
2a	Reduce transport related greenhouse gas emissions	Reduced greenhouse gas emissions per vehicle and/or person kilometre	Reduced greenhouse gas emissions per vehicle and/or person kilometre
2b	Ensure that adequate adaptation measures to climate change are in place	To produce positive effects overall on people and the environment, making a positive contribution to the overarching Welsh Government goals to reduce greenhouse gas emissions and to making Wales more resilient to the effects of climate change.	Ensure that adequate adaptation measures to climate change are in place
3	Minimise transport related noise and vibration	Reduced disturbance to people from high noise levels, from all transport modes and traffic within the existing M4 Corridor	Reduced disturbance to people from high noise levels, from all transport modes and traffic within the existing M4 Corridor
4	Ensure that biodiversity is valued, protected and enhanced	n/a	Ensure that biodiversity is valued, protected and enhanced
5	Provide inclusive access to all services and facilities and reduce severance	Easier access to local key services and residential and commercial centres	Provide inclusive access to all services and facilities and reduce severance

¹⁴ National Transport Plan Strategic Environmental Assessment Scoping Report, February 2009

No.	NTP SEA Objective ¹⁴	M4 Corridor Aims and Goals	Proposed SEA Objective
6	Protect and promote everyone's physical and mental wellbeing and safety	Improved safety on the existing M4 Corridor between Magor and Castleton	Protect and promote everyone's physical and mental wellbeing and safety
7	Reduce transport related contamination and safeguard soil function quality and quantity	n/a	Reduce transport related contamination and safeguard soil function quality and quantity
8	Minimise transport related effects on water quality, flood plains and areas of flood risk	n/a	Minimise transport related effects on water quality, flood plains and areas of flood risk
9	Prudent and sustainable use of natural resources and energy	n/a	Ensure the prudent and sustainable use of natural resources and energy.
10	Ensure that diversity, local distinctiveness and cultural heritage are valued, protected, celebrated and enhanced	n/a	Ensure that diversity, local distinctiveness and cultural heritage are valued, protected, celebrated and enhanced
11	Ensure that landscape and townscape is properly valued, conserved and enhanced	Improved travel experience into South Wales along the M4 Corridor	Ensure that landscape and townscape is properly valued, conserved and enhanced

An assessment of the compatibility of objectives against each other will be provided in the Environmental Report.

3.6 Assessment of Effects

Expert judgement will be the primary method used to assess the effects of the draft Plan. The significant effects, both during construction and operation, which require consideration are summarised in Table 3.3 and are developed from the identification of significant effects in the National Transport Plan (NTP) SEA Statement (Table 3.2).¹⁵ It is considered appropriate that these can be applied directly to the draft Plan SEA as the latter contains a subset of the types of transport interventions and measures considered in the NTP.

¹⁵ National Transport Plan SEA Statement, March 2010

Table 3.3: Assessment of Significant Effects

SEA Topics (Indicators)	Significant Effects
Air quality	Changes in air quality Air quality in areas directly affected by transport interventions Project level effects
Biodiversity	The impact of land take on the loss of/fragmentation of habitats Direct disturbance of transport related activity for flora and fauna, loss of habitats function, disturbance to fauna resulting from noise and artificial light Impact of non-native invasive species arriving in imported soil Roadside casualties and indirect transport effects (such as runoff and accidental spill from drainage systems associated with transport networks) Project level effects
Climate change adaptation	Flood risk and flooding events on the transport network Project level effects
Cultural heritage	Transport effects on historic sites and landscapes Project level effects
Greenhouse gas emissions	Levels of greenhouse gas emissions
Human health	Transport related impacts on human access to recreational or open space facilities Accidents related to transport Respiratory health Effects relating to the use of active travel modes Project level effects
Landscape and townscape	Transport effects on tranquillity and light pollution Effects on landscapes and townscapes from transport Project level effects
Material assets	Levels of use of secondary and recycled aggregates Condition of the transport infrastructure Project level effects
Noise and vibration	Noise levels related to transport Project level effects
Population	Access to key services Transport related security Community severance from transport Project level effects
Soil	Transport effects on soil (loss, sealing, contamination), soil erosion (wind and water), compaction, introduction of noxious weeds in imported soil Project level effects
Water	Transport effects on water quality Changes to hydrological regimes Project level effects

The baseline data will provide the evidence base to support expert judgements on the significance of effects and it will also be important to consider how the SEA Objectives interact with each other. The full extent of these considerations is described in Table 3.4 below. These considerations are comparable with those used on the SEA of the National Transport Plan.

Table 3.4: Considerations to be used during the SEA

Issues for Consideration	Details
Type of Effect	Positive or negative
	Direct or indirect, primary or secondary;
	Cumulative; and
	Temporary or permanent.
Magnitude and Spatial Extent	Where will it impact? Will it be within Newport, South Wales, Wales, or more widely?
	Will it cause trans-boundary issues and impact on adjacent areas or regionally, nationally or internationally?
	What is the geographical area and size of population likely to be affected?
Vulnerability of Receptor	Sensitivity of receptors;
	Special natural characteristics/areas or cultural heritage;
	Protected areas (nature conservation and cultural heritage); and
	Relative importance of the site, whether it is a nationally or internationally important feature or of local significance.
Timing and Duration of the Effect	Short term – 0 – 4 years
	Medium – 5 – 9 years
	Long term -10+ years

Once the impact has been identified the significance of the effect needs to be determined. To do this a suite of significance criteria has been developed. The proposed criteria are described in Table 3.5 below. As with Table 3.4, these criteria are comparable with those used on the SEA of the National Transport Plan. The SEA is proportionate with this strategy level of detail, identifying the uncertainties and recommending further assessment of environmental effects at project stage. The assessment will be supported by commentary on the nature of the effect, effect significance, any uncertainties or assumptions made, and the need for monitoring and mitigation.

Table 3.5: SEA Significance Criteria

Significance of Effect		Description of Effect
2	Major Positive	Likely to benefit a large part of the M4 Corridor around Newport or a large number of people and receptors. The effects are likely to be direct and permanent and the magnitude will be major
1	Minor Positive	The extent of predicted beneficial effects is likely to be limited to small areas within the M4 Corridor around Newport or small groups of people and receptors. The effects can be direct or indirect, temporary or reversible. The magnitude of the predicted effects will be minor.
0	Neutral	Neutral effects are predicted where the option being assessed is unlikely to alter the present or future baseline situation.
-1	Minor Negative	Minor negative effects are likely to be limited to small areas within the M4 Corridor around Newport, or limited to small groups of people and receptors. The effects can be direct or indirect, temporary or reversible. The importance of the receptor that is effect is likely to be minor as is the magnitude of the predicted effect.
-2	Major Negative	Likely to affect the whole, or large part of the M4 Corridor around Newport. Also applies to effects on nationally or internationally important assets. The effects are likely to be direct, irreversible and permanent. The magnitude of the predicted effects will also be major.
?	Unknown	This significance criterion is applied to effects where there is insufficient information to make a robust assessment. It is also applied to the assessment of options that can have both positive and negative effects and it is not clear whether the positive or negative effects outweigh each other.
N/A	Not Applicable	This is applied to objectives that are clearly not affected by the option or project being assessed.

The assessment of the strategic environmental effects of the draft Plan options will be undertaken using the Environmental Objectives and significance criteria. Broadly, the assessment will include:

- Identifying the environmental effects of the draft Plan, its reasonable alternatives and the do-minimum scenario; and
- Assessing effects for their significance.

An appraisal summary table will be prepared for each environmental indicator.

3.6.1 Effects In-Combination with other Plans

As well as looking at cumulative effects resulting from the measures within the draft Plan, the SEA regulations also require the consideration of the effects of a Programme in combination with other plans and programmes. As such, cumulative effects with the following plans and programmes will be considered:

- National Transport Plan;
- South East Wales Regional Transport Plan; and
- The Wales Spatial Plan (WSP).

3.6.2 Potential cross-boundary and trans-boundary effects

A requirement of the SEA Regulations is to determine whether a programme is likely to result in significant environmental effects in areas outside the area covered by the programme. Taking forward a draft Plan for the M4 Corridor around Newport has the potential to have effects on transport conditions outside of Wales. For example, reduced congestion on the M4 around Newport could change traffic flows in England on the M5, M50 and A40. However, these effects are related to changed traffic flows outside Wales rather than to specific cross-boundary environmental effects. The changes are not anticipated to result in any new significant environmental effects outside Wales but are being considered and consulted on at a strategic level.

3.7 Mitigation and Enhancement

Where the assessment identifies the potential for significant adverse environmental effects, the Environmental Report will either recommend changes to the programme or identify mitigation measures that can help to offset these effects to be considered in the SEA of the draft Plan.

It is likely that some of the mitigation measures may have to be delivered by parties other than the Welsh Government. Indeed, several levels of administrative jurisdictions and stakeholders may be involved, particularly through links to planning activities associated with the Wales Spatial Plan. The co-operation of these other interests is needed to ensure that the mitigation and enhancement measures are successfully implemented. Monitoring will play a key role in determining whether mitigation measures have been implemented and how successful they have been at addressing any potential adverse effects.

3.8 Monitoring of Significant Effects

The assessment of options will identify the likely benefits in monitoring any environmental effects arising from the potential progression of any options. These might include:

- Identifying when action should be taken to reduce or offset any potential environmental effects of the draft Plan;
- Enhancing understanding of how the environment is changing across South East Wales;
- Tracking whether the draft Plan has any unforeseen environmental effects; and
- Providing baseline data for future Environmental Impact Assessments at scheme (project) level, in the event that the draft Plan or an alternative draft Plan is adopted.

Any significant effects that may be monitored will be identified for each topic area.

Where possible, a draft Plan will make use of existing monitoring arrangements to obtain required information. Such sources might include, but are not limited to, the following:

- Monitoring of the National Transport Plan¹⁶;
- Monitoring by Newport City Council, for example, NCC operates two automatic air quality monitoring sites with “real-time” analysers that constantly monitor pollutants¹⁷;
- Monitoring by other agencies e.g. flooding by the EA;
- Monitoring by the Atomic Energy Agency for the National Air Quality Emissions Inventory;
- Welsh Government END noise mapping; and
- Welsh Government Trunk Road Estate Biodiversity Action Plan monitoring.

¹⁶ Welsh Government, Monitoring of the National Transport Plan, available at: <http://wales.gov.uk/topics/statistics/headlines/transport2012/120327/?lang=en>

¹⁷ Newport City Council Air Pollution Monitoring, available at: http://www.newport.gov.uk/_dc/index.cfm?fuseaction=environmentalhealth.homepage&contentid=cont446705

4 Consultation Programme

This report is available for comment by the statutory consultees for the statutory five week period commencing **9 July 2013**.

This scoping consultation will close on **16 August 2013**.

All queries and formal responses to this scoping report should be directed to the following:

Simon Power

Arup

4 Pierhead Street

Cardiff CF10 4QP

In preparing responses to this combined consultation, the Welsh Government wishes to pose the following specific questions:

1. Are there any specific policies, plans and programmes that will affect or influence environmental aspects of the draft Plan that we should address in our detailed review?
2. Do you agree that the approach to reviewing and updating the baseline data summarised for inclusion in the Environmental Report is appropriate, i.e. is it at the right level and coverage across social and environmental issues? Do we propose to cover the correct geographic area and issues?
3. Do you know of any additional relevant baseline data which is pertinent to the draft Plan SEA? Do you collect any information that could be used to enhance the completeness of baseline information?
4. Do you agree that the identified SEA objectives are appropriate?
5. Is the SEA process set out transparent and appropriate?
6. Are any specific organisations who should be contacted as part of the SEA Environmental Report consultation process?

The views expressed during the consultation period will feed into the next stages of the SEA and add to the understanding of the nature and importance of the potential effects of the draft Plan. They will contribute to the analysis of key environmental issues and trends identified as a result of the review of policies and plans, and of the environmental baseline.

The strategic environmental assessment, which has started, will be collated in an Environmental Report and there will be a further opportunity for consultation on the Environment Report, alongside the draft Plan Consultation Document, in due course.

The preparation of the HRA, HIA and EqIA will be started shortly separately and relevant organisations approached for information and advice.

5 Next Steps

An Environmental Report of the draft Plan will be finalised, taking into consideration any comments received by consultation bodies to this Scoping Report. A draft Plan setting out the proposed measures for the M4 corridor around Newport, and the consequential Environmental Report, will be published and will be the subject of consultation with statutory and public consultees in accordance with the relevant regulations. Following any such consultation, the Welsh Ministers would determine whether or not to adopt the published draft Plan with or without amendments.

Once the scoping consultation period has been completed, the following stages will be undertaken:

- Update the review of policy and plans in detail;
- Update the baseline environmental information;
- Preparation of the SEA Environmental Report;
- Consultation on the Environmental Report alongside the draft Plan;
- Use the Environmental Report to inform decision-making on the potential adoption of the draft Plan.

The SEA Regulations set specific requirements for consultation with the Statutory Environmental Bodies, the public and other interested parties. The Environmental Report and Draft Plan will be made available for all these parties so that they can provide a response to the contents of the reports. Regard will be made to the 5 week response time that is set out in the SEA Consultation Bodies' Services and Standards for Responsible Authorities in Wales to give all statutory bodies an effective opportunity to comment.

In addition, as there is the potential for cross border effects in England to result from implementation of the proposed draft Plan for the M4 Corridor around Newport, the equivalent English statutory consultation bodies (Natural England and the Environment Agency) are to also be consulted at this stage.

A Non-Technical Summary of the Environmental Report will be used as the key vehicle for communicating the key findings of the SEA process.

The comments received on the Environmental Report consultation will be given consideration and taken into account in an SEA Statement. An SEA Statement will be published when the draft Plan is adopted by the Welsh Government. The purpose of the SEA Statement will be to outline how the environmental assessment and consultation influence the option(s) to be progressed by the Minister for the Economy, Transport and Science, as part of a preferred strategy.