



**Cyfoeth  
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Wales

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Mr Martin Bates  
Project Director  
Infrastructure Projects Unit - Transport  
Department for Economy, Science and Transport  
Welsh Government  
Cathay's Park  
CARDIFF CF10 3NQ

14 December 2013

Dear Mr Bates,

**M4 Corridor around Newport - Strategic Environmental Assessment Environmental Report.**

Thank you for giving the Strategic Assessment Team of Natural Resources Wales' Governance Directorate the opportunity to comment on the M4 Corridor around Newport: Strategic Environmental Assessment, Environmental Report. Our comments are made in the context of our responsibilities under the Environmental Assessment of Plans and Programmes (Wales) Regulations 2004 and as statutory advisers to Welsh government on the natural heritage and resources of Wales and its coastal waters. It is not the role of the Strategic Assessment Team to comment on the M4 Corridor proposals themselves. These matters will be considered by our South Operations Directorate in a separate response. Our comments on this Environmental Report should however, be read in the context of our response to the scoping stage of this assessment process dated 16<sup>th</sup> August 2013.

Our specific comments on the report are contained within Annex 1 to this letter. Comments on key issues follow below.

- We are interested to note the assessment makes reference to the construction of bridge piers within the River Usk SAC. This statement suggests some thinking about road and bridge design which has not been shared with us and which prejudices discussions at the design and project stage. Please refer to our comments on the 'Considerations of options for the M4 Corridor around Newport with regard to the Requirements of the Habitats Regulations'.

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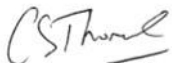
Croesewir gohebiaeth yn y Gymraeg a'r Saesneg  
Correspondence welcomed in Welsh and English

- We note the statement that ‘the main element of the draft Plan is the provision of a three lane motorway...shown as the black route’. As written, this implies that the preferred route has already been ‘selected’ and that other alternative routes (Red and Purple Routes), and options have been discounted from the draft Plan. Clarification would be welcomed given that the aim of the Strategic Environmental Assessment is to ‘inform’ the decision making process.
- We welcome the premise that scoping responses have been taken into account in the preparation of this environmental report. Whilst Appendix A includes copies of responses from the statutory consultees, it is noted that responses from other organisations, including the RSPB, have not been included. No commentary has been provided as to how scoping responses have been ‘taken into account’ within the assessment process and in this environmental report. The Directive requires responses to consultation to be taken into account during the preparation of the plan or programme and before its adoption, and it is therefore suggested that a commentary be produced which shows how consultation responses have been considered within this assessment process.
- In our response letter of 16 August 2013 to the scoping stage of this assessment process, we made the following comments on the proposed SEA objectives. It is disappointing that these suggestions made with regard to objectives do not appear to have been taken into account during this assessment process:
  - We advised that further consideration of both air quality and deposition of pollutants, particularly nitrogen deposition, NO<sub>x</sub>, SO<sub>2</sub>, etc. would be required. This suggestion does not appear to have been taken into account during this assessment process.
  - We suggested that the impact of the proposed transport infrastructure on flooding to other receptors (e.g. drainage and hydrological function) should have been considered as a (potential) significant effect within this assessment process. It would also have been useful for this assessment process to consider how the proposals will ‘adapt’ to the impacts of climate change, including flooding.
  - We recommended that overall tranquility issues should be included within this assessment process, which does not seem to be the case. We would further suggest that noise and vibration should have been considered in the context of biodiversity (and particularly potential effects of noise and vibration on migratory fish species associated with the River Usk).

- We are unable to agree with the assessment's finding of impacts on biodiversity as 'minor negative' and recommend that this is amended to 'major negative', on the basis of the direct and indirect loss of SSSI area from the suite of Gwent Levels SSSIs should the proposals go ahead. At this strategic level, we feel it is premature to be able to state that all impacts could be mitigated. We note that the appraisal carried out as part of the draft Plan consultation document 'M4 Corridor around Newport' concluded a large adverse significance on biodiversity. We refer you to Natural Resources Wales' comments on the draft Plan consultation with particular respect to biodiversity, and would recommend that the two assessment processes should be consistent and reach the same conclusions of 'major negative effects on biodiversity'.
  
- The SEA process requires the consideration of secondary, cumulative, synergistic, short, medium and long term permanent and temporary, positive and negative effects (Annex 1, f(1)). Clarification would be welcomed as to why the consideration of cumulative effects has only been made in respect of transport plans and the Wales Spatial Plan.

Should you have any queries regarding these comments, please do not hesitate to contact Alison Brown at our Maes y Ffynnon office in Bangor.

Yours sincerely



**Clive Thomas**  
**Director of Governance & Communications**

## **Annex 1:**

### **M4 Corridor around Newport - Strategic Environmental Assessment Environmental Report.**

#### **1: Introduction**

We note the statement that ‘the main element of the draft Plan is the provision of a three lane motorway...shown as the black route’. As written, this implies that the preferred route has already been ‘selected’ and that other alternative routes (Red and Purple Routes), and options have been discounted from the draft Plan. Clarification would be welcomed given that the aim of the Strategic Environmental Assessment is to ‘inform’ the decision making process.

We note and welcome the intention to undertake a separate study on proposals for public transport measures. It is disappointing that these public transport issues therefore cannot be included within this assessment process, either in the context of ‘reasonable alternatives’ or as potential mitigation measures in terms of significant adverse effects.

**1.2:** We note the reference to congestion during ‘weekday peak periods’. Clarification would be welcomed as to whether congestion is restricted to these time periods.

**2.5:** Reference should be made to the Wales Tranquillity Maps (CCW 2009) which are also available on the Welsh Government website, in the context of a ‘sustainable development’ indicator.

**Section 2.6.2:** See comments above on 1: Introduction. This section refers to the public transport measures included within the M4 CEM, and states that they are not included in this draft Plan because WG has now commissioned a separate study into proposals for a SE Wales metro system. We recommend that public transport measures, aimed at reducing traffic use of M4, should look more widely than just a metro system (which may or may not happen anyway), but be extended to cover consideration of initiatives to, for example, transfer freight to rail, buses, existing rail, car share schemes, etc.

**3.1.1:** We note the intention to ‘investigate’ a junction strategy in the event that the ‘Black Route’ is adopted. The intention of the SEA process is to consider the likely significant effects of plan proposals on the environment and it seems inappropriate for an integral part of this plan to be deferred for future ‘investigation’. The failure to include junction strategies within the Black Route proposals compromises the ability of this assessment process to consider all the potential significant effects (both positive and negative), at the strategic level.

**4.2:** We welcome the premise that scoping responses have been taken into account in the preparation of this environmental report. Whilst Appendix A includes copies of responses from the statutory consultees, it is noted that responses from other organisations, including the RSPB, have not been included. No commentary has been provided as to how scoping responses have been ‘taken into account’ within the assessment process and in this environmental report. The Directive requires responses to consultation to be taken into account **during** the preparation of the plan or programme and before its adoption, and it is therefore suggested that a commentary be produced which shows how consultation responses have been considered within this assessment process.

We would particularly refer you to our scoping response of 16<sup>th</sup> August 2013, in reference to matters of flood risk, water resources and water quality. Our advice and comments remain relevant at this stage and will also be relevant at future project level.

**4.2.1:** Reference should be made to ‘tranquillity’ issues as well as to light pollution. See comments above on 2.5.

**4.2.3:** Clarification would be welcomed as to how the temporal scope of the assessment process relates to anticipated development, construction and operation phases of the proposals themselves. Given the potentially long lead in time for the proposed works (including the need for appropriate statutory assessments at the project level), it is suggested that the temporal scope and ‘short term effects’ (0-4 years) in particular, may require adaptation.

**Table 5:**

In our response to the scoping stage of this assessment process, we made the following suggestions for additional plans and programmes for inclusion in the ‘review.

**Climate Factors and Water**

Welsh Government’s ‘Adapting to Climate Change: Guidance for Flood and Coastal Management Authorities in Wales’, December 2011.

**Water: Matters relating to Water Resources**

Water Resources Strategy for Wales (currently in development).  
Environment Agency Wales’ Drought Plan.

**Water: Matters relating to Flood Risk**

Reference should be made to the Newport County Local Flood Risk Management Strategy, and to relevant flood and water level management plans in operation in the Gwent Levels.  
Flood & Water Management Act 2010

Water Resources Act 1991  
Land Drainage Act 1994  
Environment Agency - National Coastal Erosion Risk Mapping Project

### **Landscape and Townscape.**

Reference should be made to the 2007 Tranquillity studies undertaken by the Countryside Council for Wales on behalf of Welsh Government.

Wales' Tranquillity Maps (CCW 2009).

### **Table 9: Environmental Objectives.**

In our response to the scoping stage of this assessment process, we made the following comments on the proposed SEA objectives:

#### **Proposed SEA Objectives**

##### **No 1: Minimise transport related air pollution.**

We welcome this objective in principle but would recommend it is strengthened to include reference to both air pollution and deposition. The aims and goals should also consider not only air quality next to the existing M4 corridor but include those areas affected by emissions from any extension to the M4 corridor (both air quality and deposition). Clarification is required as to what is understood by 'air quality' in this objective. We would recommend that air pollution issues are considered in the context of biodiversity as well as humans.

##### **2B: Adaptation Measures to Climate Change.**

We welcome the principle of seeking adaptation measures. However, it is suggested that these measures should, in the light of uncertainty and given the proposed routes to the south of Newport, aim to be more than 'adequate'.

##### **4: Biodiversity.**

Objectives should be strengthened to include consideration of ecological function and connectivity. It is disappointing to note that biodiversity issues have not been included within the M4 Corridor Aims and Goals given that the proposals may offer the opportunity to improve, restore and enhance biodiversity and ecological function.

##### **7: Soils.**

See comments above on 1.3.1. It is disappointing to note that soil and soil function issues have not been included within the M4 Corridor 'Aims and Goals' given that the proposals may offer the opportunity to improve, restore and enhance the soil resource. We would further recommend that the Objective to 'reduce transport related contamination and safeguard soil quality and quantity' be strengthened to account for the potential for development to affect contaminated sites and land affected by historic contamination.

## **8: Transport.**

Whilst we agree, in principle, with Objective 8, it is suggested that it is strengthened to specifically include both surface and groundwater quality.

It is disappointing that the suggestions made in our scoping response with regard to objectives do not appear to have been taken into account during this assessment process.

### **Table 12: Air Quality Assessment.**

It does not appear that there has been any consideration of the impact of air quality issues on the habitats and non-human environment of the area.

In our scoping response letter of 16 August 2013 we advised that further consideration of both air quality and deposition of pollutants, particularly nitrogen deposition, NO<sub>x</sub>, SO<sub>2</sub>, etc. would be required. We reiterate this advice and refer you to the Design Manual for Roads and Bridges for guidance, although we would also recommend that impacts are assessed on relevant designated sites within 200m of the edge, rather than the middle of proposed road routes. We also recommend that any Air Quality Assessment be carried out in accordance with principles outlined in the EA H1 Guidance Annex f, air emissions; and compares the various routes/alternatives and do minimum scenarios against the relevant environmental standards for protecting ecosystems/vegetation/habitats. The principle of using this guidance in relation to proposed road schemes was accepted in relation to the A465, and we would expect it to be used in the context of the M4 proposals.

### **Climatic Factors- Adaptation Measures.**

We would suggest that the impact of the proposed transport infrastructure on flooding to other receptors (e.g. drainage and hydrological function) should have been considered as a (potential) significant effect within this assessment process. It would also have been useful for this assessment process to consider how the proposals will 'adapt' to the impacts of climate change, including flooding. In considering the nature of climate change effects, the consequences of a flood event on the proposed development (over its predicted lifetime) should be demonstrated as 'manageable down to an acceptable level', including any induced effects on existing development, material assets and the environment.

### **Noise and Vibration.**

It is disappointing that overall tranquility issues have not been included within this assessment process, as recommended in our scoping response of 16<sup>th</sup> August 2013. We would further suggest that noise and vibration should have been considered in the context of biodiversity (and particularly potential effects of noise and vibration on migratory fish

species associated with the River Usk).

### **Biodiversity, Flora and Fauna.**

We are unable to agree with the assessment's finding of impacts on biodiversity as 'minor negative' and recommend that this is amended to 'major negative', on the basis of the direct and indirect loss of SSSI area from the suite of Gwent Levels SSSIs should the proposals go ahead. At this strategic level, we feel it is premature to be able to state that all impacts could be mitigated. We disagree that the scale of loss would be insignificant in the context of the Gwent levels SSSIs as a whole. The proposed route alignments are all situated in the north of the Gwent Levels area, with the potential for any impacts on either water quality or water quantity to be felt throughout the whole drainage system as a result of the water level management of this area. In addition, the barrier that any new road alignment would create has implications for the continued management of both the land and drainage system if beneficial agricultural use becomes unfeasible – management which has traditionally supported the SSSI interest features.

In addition there are other aspects of biodiversity which need to be factored into consideration, including protected species, other nationally and internationally designated sites and local designations and biodiversity.

We are interested to note the assessment makes reference to the construction of bridge piers within the River Usk SAC. This statement suggests some thinking about road and bridge design which has not been shared with us and which prejudices discussions at the design/project stage. Please refer to our comments on the 'Considerations of options for the M4 Corridor around Newport with regard to the Requirements of the Habitats Regulations'.

### **Soil and Geology - Contamination**

We have previously commented on the potential impact of the plans on the Docksway Landfill sites and encouraged further detailed assessment of this issue primarily from an engineering perspective. The full extent of the potential effects will be dependent upon the final choice of route.

From comments made in the Non Technical Summary, the Black Route intends to avoid the active and historic parts of the Docksway Landfill. However, the proximity of the proposed routes to this landfill site may impact on the site's engineering integrity and the ability of the operator to control emissions. Further consideration should be given as to how ground works could affect ground stability of this landfill site, water discharges and gas management. Similar, concerns will apply to the Llanwern (south side of Queensway – Tata) industrial waste landfill and Slobland closed landfill (at Alphasteel).



On a point of clarity, while our scoping response of 16<sup>th</sup> August 2013 provided details on sites where contamination is known/strongly suspected to be present, these sites should not be taken as an exhaustive list because other sites or areas may be encountered.

We would also advise that the use of the term 'land contamination' should be used in preference to 'Contaminated Land'. The latter is a legal term referring to determined sites under Part IIa of the Environmental Protection Act 1990. We are not aware of any sites relevant to the draft plan or a reasonable alternative that have been determined as 'contaminated land', but would advise that the Local Authority (as the lead regulator for the Contaminated Land regime) should be consulted.

### **Water**

Changes to the hydrological regime are mentioned as a key issue, however this is not considered fully in Table 20 Water Assessment. While we support the comments on runoff and flood risk, the risk of changes in the hydrological regime from a low flow perspective and sedimentation impacts should also have been considered in this assessment process. We would also suggest that for the water topic of this assessment, additional consideration should be given to water quantity in addition to water quality.

No mention appears to be made about additional statutory main rivers other than the Usk, for example, the River Ebbw. Although this watercourse is not designated as a protected ecological site, it is known as a main river.

Although we appreciate that Monks Ditch may have been considered as part of the wider green network, further consideration should be given to this ditch because it is currently failing WFD standards and there may be opportunities to improve its standard.

### **Material Assets**

Clarification is required for the statement that 'long term benefits for the sustainable use of natural resources and energy following the consumption of materials during construction is considered to warrant a minor negative effect'. We would suggest that the aim of the SEA process is to consider the potential effects of a plan on the environment (including material assets) for the purposes of informing the decision making process. 'Trading off' environmental effects against different environmental assets is unlikely to be helpful, and means that the nature and extent of potential environmental effects is unclear. No consideration has been given to the potential induced effects of the proposals on existing material assets e.g. water infrastructure, housing, etc. We are therefore unable to agree with this assessment's 'score' of minor negative for material assets.

In reference to mitigation and/or enhancement measures we note that the waste hierarchy, local sourcing of materials and the administration of a waste management plan are to be

considered further. It is likely that due to historic land contamination that significant volumes of material will be unsuitable for reuse and therefore regard should be given to the safe disposal or treatment of these wastes on or off 'site'.

### **Cultural Heritage.**

We agree with the 'major negative' assessment made in relation to impacts on cultural heritage. We refer specifically to the fact that large sections of any new road considered in the M4 Corridor around Newport, would pass through the designation of the Gwent Levels Landscape of Outstanding Historic Interest in Wales.

### **Landscape and Townscape**

We agree with the 'major negative' assessment made in relation to impacts on landscape and Townscape.

**7.2:** The SEA process requires the consideration of secondary, cumulative, synergistic, short, medium and long term permanent and temporary, positive and negative effects (Annex 1, f(1)). Clarification would be welcomed as to why the consideration of cumulative effects has only been made in respect of transport plans and the Wales Spatial Plan.

### **7.4: Limitations**

We seek clarification of the first bullet point "Uncertainties were encountered surrounding the following: Uncertainty as to the success in achieving behavioural changes to result in a modal shift to more sustainable modes of travel". As currently written, the point which is trying to be made is unclear and we recommend that it be rewritten and simplified.

We also note that insufficient information is available at this strategic stage to identify and evaluate the risk and extent of contaminated land that the draft Plan, or a reasonable alternative, may cross. Such information would be determined at project level.

### **Section 8: Mitigation**

We note from comments made in Section 8, Mitigation, that additional mitigation and refinement of options will be undertaken at detailed project level. Our view is that any necessary mitigation required should also be based on the resultant outcomes of any surveys, investigations and assessments undertaken for the Plan and/or detailed project level. Further consultation and discussion with Natural Resources Wales would be expected on avoidance and mitigation measures.