

**M42 Junction 6 Improvement  
Scheme Number TR010027  
Volume 6**

**6.3 Environmental Statement**  
**Appendix 5.1 Transboundary Effects  
Screening Matrix**

Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed  
Forms and Procedure) Regulations 2009

January 2019

Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning  
(Applications: Prescribed Forms  
and Procedure) Regulations 2009**

**M42 Junction 6 Improvement  
Development Consent Order 201[-]**

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**6.3 Environmental Statement  
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<b>Regulation Number</b>	Regulation 5(2)(a)
<b>Planning Inspectorate Scheme Reference</b>	TR010027
<b>Application Document Reference</b>	6.3
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Rev 1	January 2018	DCO Application

## Appendix 5.1: Transboundary effects screening matrix

### Background

- 1.1.1 Regulation 32 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 [REF 1] requires the consideration of any likely significant effects on the environment of another European Economic Association (EEA) State.
- 1.1.2 Guidance upon the consideration of transboundary effects is provided in Planning Inspectorate's Advice Note 12: Transboundary Impacts [REF 2]. The following screening matrix presents the consideration of transboundary effects for the Scheme, taking account of this guidance.

**Table 1: Screening of potentially significant effects on the environment of other EEA states**

Criteria and relevant considerations	Commentary with regard to the Scheme
<b>Characteristics of the development</b> <ul style="list-style-type: none"> <li>a. size of the development</li> <li>b. use of natural resources</li> <li>c. production of waste</li> <li>d. pollution and nuisance</li> <li>e. risk of accidents</li> <li>f. use of technologies</li> </ul>	<p>The Scheme comprises the following components:</p> <ul style="list-style-type: none"> <li>a. a new junction approximately 1.8km south of the existing Junction 6 off the M42 (referred to as M42 Junction 5A);</li> <li>b. a new 2.4km long dual carriageway mainline link road between M42 Junction 5A and Clock Interchange, with a free flow slip road to the A45 Coventry Road;</li> <li>c. capacity and junction improvements at Clock Interchange;</li> <li>d. new free flow links between the A45 and M42 motorway at M42 Junction 6;</li> <li>e. the realignment and modification of the B4438 Catherine de Barnes Lane, Clock Lane and St. Peters Lane west of the M42 motorway, and of Eastway and the Middle Bickenhill Loop north east of M42 Junction 6;</li> <li>f. modifications to the location and spacing of emergency refuge areas, overhead gantries and message signing along the M42 motorway;</li> <li>g. modifications and improvements to public rights of way, footbridges and private accesses; and</li> <li>h. the reconfiguring of the Warwickshire Gaelic Athletic Association (Páirc na hÉireann) sports facility.</li> </ul> <p>The Scheme would be progressed within the administrative boundary of Solihull Metropolitan Borough Council.</p> <p>A review of the characteristics of the Scheme has concluded that:</p> <ul style="list-style-type: none"> <li>a. some of the resources required to construct the Scheme are likely to be obtained from the global market e.g. steel; however it is envisaged that such materials would be able</li> </ul>

Criteria and relevant considerations	Commentary with regard to the Scheme
	<p>to be obtained locally within the UK.</p> <p>b. no waste, nuisances or accidents are likely that would extend beyond the border of the UK as a result of construction or operation of the Scheme.</p> <p>c. no novel technologies are proposed that would introduce potential for transboundary effects to occur on other EEA states.</p>
<p><b>Geographical area</b></p> <p>What is the extent of the area of a likely impact under the jurisdiction of another EEA state?</p>	<p>A review of the geographical area of impact associated with the Scheme has concluded that any environmental effects associated with its construction and operation are unlikely to extend beyond the jurisdiction of the UK, with the exception of potential release of greenhouse gas emissions from vehicles (traffic) in relation to their contribution to climate change.</p>
<p><b>Location of development</b></p> <p>a. What is the existing use?</p> <p>b. What is the distance to another EEA state?</p>	<p>A review of the location within which the Scheme would be constructed and would operate has concluded that existing land uses are mixed but predominantly agricultural. Some of the areas of land that would be permanently taken by the Scheme are currently occupied by similar land uses i.e. the existing highway network.</p> <p>The location of the Scheme is situated approximately 290km from France and 310km from the Republic of Ireland. The study areas proposed within each individual assessment have been reviewed, and it has been concluded that none of their boundaries would extend into these EEA states.</p>
<p><b>Cumulative impacts</b></p> <p>Are other major developments close by?</p>	<p>A number of developments which could interact cumulatively with the Scheme have been identified and are presented in the cumulative assessment chapter in Chapter 16 Assessment of Cumulative Effects [TR010027/APP/6.1] of the Environmental Statement.</p> <p>The form and nature of several of these developments are such that they are likely to result in the attraction or reassignment of traffic on the strategic and local highway network of the area which, in combination with the Scheme, could give rise to cumulative increases in greenhouse gas emissions.</p>
<p><b>Carrier</b></p> <p>By what means could impacts be spread?</p>	<p>Environmental effects would derive from the physical introduction of highway built form into the receiving environment, and from vehicles (traffic) travelling on the improved highway network.</p> <p>Potential effects associated with noise, ecology, landscape, flood risk and land use (land take) would be relative to the Scheme, and would be focused within the adopted assessment study areas identified for these topics.</p> <p>Emissions to air (specifically greenhouse gas) derived from vehicles travelling on the improved highway would be spread</p>

Criteria and relevant considerations	Commentary with regard to the Scheme
	and dispersed by normal atmospheric processes and conditions. Such emissions have the potential to combine with greenhouse gas emissions associated with other developments within EEA states, and with the cumulative developments identified above.
<b>Environmental importance</b> <ol style="list-style-type: none"> <li>Are particular environmental values likely to be affected?</li> <li>Capacity of the natural environment</li> <li>Wetlands, coastal zones, mountain and forest areas, nature reserves and parks, Natura 2000 sites, areas where environmental quality standards already exceeded, densely populated areas, landscapes of historical, cultural or archaeological significance</li> </ol>	<p>A review of the geographic location of the Scheme against statutory and non-statutory nature conservation designations confirmed that:</p> <ol style="list-style-type: none"> <li>there are no international nature conservation sites within 10km of the Scheme.</li> <li>there are three (statutory) Sites of Special Scientific Interest of national importance within 2km of the Scheme.</li> <li>there are three (statutory) Local Nature Reserves of local importance within 2km of the Scheme.</li> <li>there are five (non-statutory) Local Wildlife Sites (LWS) and 10 potential LWS/Ecosites of local importance within 250m of the Scheme.</li> </ol> <p>Accordingly, there would be no significant effects from construction and operation of the Scheme on European (Natura 2000) sites.</p> <p>Birmingham City Council has declared a city-wide Air Quality Management Area west of the existing M42 corridor.</p> <p>Three Scheduled Monuments of national importance in heritage terms are located within the 1km study area proposed for the cultural heritage assessment. No internationally important sites have been identified.</p> <p>No landscape designations of national importance have been identified within the 1km study area proposed for the landscape and visual effects assessment.</p>
<b>Extent</b> What is the likely extent of the impact?	<p>The only potential transboundary environmental impact is from greenhouse gas emissions, which could contribute to climatic changes on a global scale.</p> <p>Based on a review of the characteristics of the Scheme, it has been concluded that such changes to the existing strategic highway network are unlikely to result in a significant contribution to global climate change.</p>
<b>Magnitude</b> What will the likely magnitude of the change in relevant variables relative to the status quo, taking into account the	<p>Total UK greenhouse gas emissions were estimated to be 495.7 million tonnes carbon dioxide equivalent (MtCO<sub>2</sub>e) in 2015, whilst greenhouse gas emissions from UK transport were estimated to be approximately 120MtCO<sub>2</sub>e (Department for Business, Energy &amp; Industrial Strategy (7 February 2017<sup>1</sup>).</p>

<sup>1</sup> <https://www.gov.uk/government/statistics/final-uk-greenhouse-gas-emissions-national-statistics-1990-2015>

Criteria and relevant considerations	Commentary with regard to the Scheme
sensitivity of the variable?	<p>A review of the Scheme has concluded that there would be a negligible contribution to the UK's overall greenhouse gas emissions associated with changes of the type proposed, and accordingly negligible potential to contribute to global climate change when considered against other EEA member state emissions in a transboundary context (and with other identified cumulative developments).</p> <p>Greenhouse gas emissions derived from the Scheme will be calculated as part of the EIA process.</p>
<b>Probability</b> a. What is the degree of probability of the impact? b. Is the impact likely to occur as a consequence of normal conditions or exceptional situations, such as accidents?	<p>By virtue of its form and scale the Scheme would result in greenhouse gas emissions. Greenhouse gases would principally derive from vehicle exhaust emissions during operation of the Scheme, with reduced emissions from plant, machinery and other vehicles during its construction.</p> <p>Both increases and decreases in air quality (and greenhouse gas emissions) are likely to occur at different locations as a result of the Scheme implementation.</p>
<b>Duration</b> a. Is the impact likely to be temporary, short-term or long-term? b. Is the impact likely to relate to the construction, operation or decommissioning phase of the activity?	<p>Greenhouse gas emissions are likely to occur over a long-term duration, and would be predominantly associated with the operational stage of the Scheme where traffic would travel continuously on the improved sections of highway.</p> <p>Notwithstanding this, it is expected that improvements in the levels of greenhouse gas emissions from individual vehicles will be achieved in the medium- to long-term through technological advancements and the UK's drive to decrease dependency on carbon-based fuels (such as diesel).</p>
<b>Frequency</b> What is likely to be the temporal pattern of the impact?	<p>The temporal pattern of greenhouse gas emissions is likely to be relatively constant, due to the Scheme forming part of the strategic highway network and being in constant use.</p>
<b>Reversibility</b> Is the impact likely to be reversible or irreversible?	<p>The impact of greenhouse gas emissions is considered irreversible, as the highways improvements are unlikely to be decommissioned within human lifetimes.</p>

## References

REF 1	The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. HMSO (2017). <a href="http://www.legislation.gov.uk/ukxi/2017/572/contents/made">http://www.legislation.gov.uk/ukxi/2017/572/contents/made</a>
REF 2	Advice Note Twelve – Transboundary Impacts and Process. The Planning Inspectorate (2018). <a href="https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2013/04/Advice-note-12v2.pdf">https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2013/04/Advice-note-12v2.pdf</a>