

M54 to M6 Link Road

TR010054

Volume 6

6.3 Environmental Statement

Appendices

**Appendix 4.5 Changes to Scope and
Methodology**

Regulation 5(2)(a)

Planning Act 2008

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

July 2020

Infrastructure Planning

Planning Act 2008

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

**M54 to M6 Link Road
Development Consent Order 202[]**

**6.3 Environmental Statement Appendices
Appendix 4.5 Changes to Scope and Methodology**

Regulation Number	Regulation 5(2)(a)
Planning Inspectorate Scheme Reference	TR010054
Application Document Reference	6.3
Author	M54 to M6 Link Road Project Team and Highways England

Version	Date	Status of Version
2	July 2020	DCO Application

Table of contents

1	Appendix 4.5 Changes to Scope and Methodology	1
1.1	Background	1

List of Tables

Table 1: Changes to scope and methodology.....	2
--	---

1 Appendix 4.5 Changes to Scope and Methodology

1.1 Background

- 1.1.1 Since the submission of the Scoping Report to the Inspectorate on 11 January 2019 the Design Manual for Roads and Bridges environmental standards have been updated. Where possible these new standards have been utilised in undertaking the EIA. Table 1 below outlines the changes in scope and methodology since the submission of the Scoping Report in January 2019.

Table 1: Changes to scope and methodology

ES Chapter	Guidance Scoping	Guidance ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion
Chapter 4: Environmental Assessment Methodology	DMRB V11, S2, P5: HA205/08 Assessment and Management of Environmental Effects	DMRB, LA 104 Environmental assessment and monitoring	Environmental Value of Receptors	No change
			Magnitude of Impact	No change
			Significance of Effect Matrix	No change
Chapter 5: Air Quality	IAN 170/12 v3 IAN 174/13 IAN 175/13 Defra's Local Air Quality Management Technical Guidance TG16. Latest Transport Analysis Guidance as provided by the Department for Transport	Due to the timing of publication of DMRB LA 105 the assessment has been undertaken in line with the scoping opinion and a sensitivity test has been will be undertaken. For details of the sensitivity testing completed, refer to application document 'DMRB Updates and the Impact on the DCO Application' [TR010054/APP/8.2]. Latest Transport Analysis Guidance as provided by the Department for Transport	Construction dust assessment	No change to assessment methodology
			Local air quality assessment	No change to assessment methodology
			Designated ecosystem assessment	No change to assessment methodology
			Local air quality compliance risk assessment	No change to assessment methodology
			Local air quality plan level WebTAG appraisal	Assessment of PM _{2.5} instead of PM ₁₀ in line with updated WebTAG guidance.
			Regional Assessment	No change to assessment methodology.
			Aspects scoped in	Assessment of changes to PM _{2.5} added to the scope of the local and regional assessment in addition to NO _x and PM ₁₀ following comments from Public Health England. Concentrations of PM _{2.5} have been calculated based on the modelled PM ₁₀ concentrations.
			Aspects scoped out	No new aspects scoped out of the assessment.

ES Chapter	Guidance Scoping	Guidance ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion
Chapter 6: Cultural Heritage	DMRB, V11, S3, P2: HA208/07 Cultural Heritage	DMRB, LA 106 Cultural Heritage DMRB, LA 104 Environmental assessment and monitoring	Chapter title	No change
			Archaeological assets	No change to study area.
			Built heritage	Receptor sensitivity/ value and magnitude of impact criteria updated in line with LA 106 and LA 104.
			Historic landscapes	No change to significance of effect matrix compliant with LA 104.
			Aspects scoped in	No additional aspects scoped in for assessment.
			Aspects scoped out	No new aspects scoped out of the assessment.
Chapter 7: Landscape and Visual	DMRB V11, S3, P5: Landscape Effects. Interim Advice Note 135/10, Landscape and Visual Effects Assessment. Guidelines for Landscape and Visual Impact Assessment (Third Edition) (GLVIA3)	DMRB, LA 107 Landscape and Visual DMRB, LA 104 Environmental assessment and monitoring Guidelines for Landscape and Visual Impact Assessment (Third Edition) (GLVIA3) Landscape Institute TGN 06/19 Visual Representation of development proposals	Chapter title	No change.
			Landscape assessment	No change to study area. Receptor sensitivity/ value and magnitude of impact criteria updated in line with LA 107.
			Visual assessment	Significance of effects matrix updated in line with LA 104. Viewpoint photography figures updated in line with Landscape Institute TGN 06/19.
			Aspects scoped in	Night time views scoped in, in response to consultation response.
			Aspects scoped out	No new aspects of the LVIA have been scoped out.

ES Chapter	Guidance Scoping	Guidance ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion
Chapter 8: Biodiversity	DMRB, V11, S3, P4: Ecology and Nature Conservation. DMRB, V10 S4: Nature Conservation IAN 130/10: Ecology and Nature Conservation: Criteria for Impact Assessment. Guidelines of Ecological Impact Assessment in the UK and Ireland (Chartered Institute of Ecology and Environmental Management, Second Edition 2016)	DMRB, LA 108 Biodiversity DMRB, LA 118 Biodiversity design	Chapter title	No change.
			International nature conservation designations	No change to 30 km study area for SAC designated for bats. Study area reduced from 10 km to 2 km or within 200 m of the affected road network for other international statutory nature conservation designations Internationally designates sites. Change of scope agreed with Natural England. Receptor importance, level of impact and significance matrix criteria updated in line with LA108. Terminology changes but no change to impact assessment.
			National statutory nature conservation designations	No change to study area. Receptor importance, level of impact and significance matrix criteria updated in line with LA108. Terminology changes but no change to impact assessment.
			Non-statutory nature conservation designations	No change to study area. Receptor importance, level of impact and significance matrix criteria updated in line with LA108. Terminology changes but no change to impact assessment.
			Protected Species	A number of the study areas for protected species have been revised since the scoping opinion. These changes were updated in the PEI Report and reviewed by the County Ecologist and Natural England. Receptor importance, level of impact and significance matrix criteria updated in line with LA108. Terminology changes but no change to impact assessment. Changes to the study areas are as follows:

ES Chapter	Guidance Scoping	Guidance ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion
				<ul style="list-style-type: none"> • Desk study area for Barn Owl increased from 2 km to 5 km. The following survey study areas have change • Badger - Increased from 50 m to 250 m from the Scheme boundary. • Barn Owl - Increased from 250 m to 500 m from the Scheme boundary. • Bats trees and structures - Increased tree inspections from 50 m to 100 m from the Scheme boundary. • Bat Transects - Reduced from 100m from the Scheme boundary to adjacent to the Scheme boundary. • Bat Crossing point surveys - surveys undertaken following scoping response. • Breeding and wintering birds - Increased from 100 m to 250 m from the Scheme boundary • Otter and water vole - Increased from 250 m upstream and downstream of crossing points to 100 m from the Scheme boundary. • Terrestrial Invertebrates reduced from 100 m from the Scheme boundary to the Scheme boundary. • White-clawed crayfish - Increased from 250 m upstream and downstream of crossing points to the Scheme boundary.
			Aspects scoped in	Assessment of impacts on barn owl, great crested newt, otter and water vole were scoped back in to the EIA following issue of Scoping Report due to changes in the Scheme boundary.
			Aspects scoped out	Dormouse scoped out of the assessment in agreement with the County Ecologist.

ES Chapter	Guidance Scoping	Guidance ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion
Chapter 9: Geology and Soils	DMRB, V11, S3, P11: Geology and Soils	DMRB, LA 109 Geology and Soils	Chapter title	No change.
			Geology and geologically designated sites	No change to study area for geologically designated sites. Geology study area increased to match the geologically designated sites, from Scheme boundary to a 250_m study area. Receptor sensitivity and magnitude of impact criteria a have been updated in line with LA 109. Significance matrix updated in line with LA104.
			Contamination (Human Health)	No change to study area. Receptor sensitivity and magnitude of impact criteria a have been updated in line with LA 109. Significance matrix updated in line with LA104.
			Controlled Waters (Contamination)	Study area for contamination of controlled waters (now referred to instead as surface water and groundwater) increased to 1 km from 500 m. Receptor sensitivity and magnitude of impact criteria a have been updated in line with LA 109 and LA 113. Significance matrix updated in line with LA104.
			Agricultural land	No change to study area. Receptor sensitivity and magnitude of impact criteria a have been updated in line with LA 109. Significance matrix updated in line with LA104.
			Aspects scoped in	No additional aspects scoped in for assessment
			Aspects scoped out	No new aspects scoped out of the assessment. Impacts on agricultural land holdings are now reported in Chapter 12: Population and Human Health.

ES Chapter	Guidance Scoping	Guidance ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion
Chapter 10: Material Assets and Waste	IAN 153/11	DMRB, LA 110 Material Assets and Waste	Chapter title	No change
			Impact on the existing capacity of landfill	Prediction and assessment methodology fundamentally unchanged, no change to assessment outcome.
			Impacts on the use of primary material resources	Prediction and assessment methodology fundamentally unchanged, the same no change to assessment outcome.
			Aspects scoped in	No change
			Aspects scoped out	No change
Chapter 11: Noise and Vibration	DMRB V11, S3, P7 HD 213/11 Noise and Vibration, IAN 185/15¹ BS 5228: 2009+A1: 2014 'Code of Practice for Noise and Vibration Control on Construction and Open Sites' CRTN methodology BNL BS 7385-2: 1993 'Evaluation and measurement for	Due to the timing of publication of the revision to the DMRB LA 111 Noise and Vibration , the original assessment [APP-050/Volume 6.1] was has been undertaken in line with the 2011 version of the DMRB as set out in the scoping report/opinion and a sensitivity test will be undertaken.	Chapter title	No change
			Construction noise and vibration impacts	No effective change to the study area. No change to the scope or prediction methodology. New magnitude of impact criteria have been adopted in line with LA 111, though this does not affect the methodology for the identification of potentially significant effects.
			Construction traffic noise impacts	With the exception of night time diversion routes (see below), no change to the construction traffic noise study area. No change to the prediction methodology. With the exception of night time diversion routes (see below), no change to the magnitude of impact criteria or identification of potentially significant effects as already in line with LA 111. Scope extended to include the new explicit requirement in LA 111 to assess the impacts from night-time diversion routes using a

¹ [In addition to DMRB the Noise and Vibration assessment utilises a wide range of guidance and standards, as detailed in Section 11.3 'Assessment methodology' of the ES and listed in Section 11.11 'References'. These are unchanged from the Scoping stage and are therefore not listed in the table.](#)

ES Chapter	Guidance Scoping	Guidance ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion
	<p>vibration in buildings —Part 2: Guide to damage levels from ground borne vibration'</p> <p>ISO 4866:2010 'Mechanical vibration and shock. Vibration of fixed structures. Guidelines for the measurement of vibrations and evaluation of their effects on structures'</p> <p>WHO Guidelines for Community Noise</p>	<p><u>Version 2 of the Noise and Vibration assessment was submitted to the Planning Inspectorate in July 2020. The assessment presented in this revision as undertaken in line with the updated DMRB LA 111 Noise and Vibration.</u></p> <p><u>No other changes to relevant guidance or standards have occurred since Scoping.</u></p>	<p>Operational phase noise impacts</p> <p>Operational phase airborne vibration annoyance impacts</p>	<p><u>study area of 25 m from any existing roads affected by night-time diversions (23:00-07:00), due to the closure of an existing road.</u></p> <p><u>Study area updated as follows: the revised DMRB LA 111 adopts the same two operational traffic noise assessment methodologies as the previous 2011 DMRB:</u>No change</p> <ul style="list-style-type: none"> <u>noise modelling (calculations of noise level changes at specific receptors using 3D noise modelling software); and</u> <u>changes in Basic Noise Level (BNL) (calculations based on the source level of the road rather than the level at each individual receptor).</u> <p><u>LA 111 sets the area of operational traffic noise modelling (the calculation area) at 600 m from the Scheme and existing routes bypassed by the Scheme (i.e. A460 Cannock Road). The requirement in the previous DMRB to also include areas within 600 m of 'affected routes', up to a maximum of 1 km from the Scheme and routes bypassed by the Scheme, has been removed. In both the revised and previous DMRB affected routes outside the calculation area are assessed using the change in the BNL and a 50 m study area, unless this indicates a specific need for detailed modelling.</u></p> <p><u>The traffic speed data used in the traffic noise predictions has been updated to use pivoted rather than banded speeds. No other changes to the prediction methodology.</u></p> <p><u>Minor changes to the factors which are considered in identifying significant effects.</u></p> <p>All<u>Operational traffic vibration impacts now scoped out of the assessment, in line with LA 111.</u></p>

ES Chapter	Guidance Scoping	Guidance ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion
			due to airborne vibration	
			Aspects scoped in	No additional aspects scoped in for assessment. Inclusion of the new explicit requirement in LA 111 to assess the impacts from night-time diversion routes during construction.
			Aspects scoped out	Operational traffic vibration impacts and operational traffic noise annoyance impacts scoped out as no longer required by the revised DMRB LA 111 .
Chapter 12: Population and Health	DMRB V11, S3, P6: Land Use. DMRB V11, S3, P8: Pedestrians, Cyclists, Equestrians and Community Effects. DMRB V11, S3, P9: Vehicle Travellers. IEMA, Health in Environmental Impact Assessment: A Primer for a Proportionate Approach.	DMRB, LA 112 Population and Human Health. DMRB, LA 104 Environmental Assessment and Monitoring. IEMA, Health in Environmental Impact Assessment: A Primer for a Proportionate Approach. London Healthy Urban Development Unit (2019) HUDU Planning for Health: Rapid	Chapter title	Updated to 'Population and <u>Human</u> Health' from 'Population and Health' in line with LA112.
			Non-motorised user (NMUs)	NMUS are now referred to as Walkers, Cyclists and Horse-riders (WCH). No change to study area. WCH are considered under the wider heading of 'Land use and access'. Receptor sensitivity and magnitude of impact criteria and significance effect matrix have been updated in line with LA 112 and LA104.
			Motorised users	Views from the road' and 'driver stress' are no longer required to be assessed under the current DMRB standards. It is considered that aspects such as vehicle journey times, congestion and safety are considered in other aspects of the DCO application. These aspects have not been assessed as part of the Population and Human Health Assessment.

ES Chapter	Guidance Scoping	Guidance ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion
		Health Impact Assessment Tool	Private assets and development land	<p>These aspects are considered under the wider heading of 'Land use and access' which considers the impacts of the Scheme on 'Businesses and development land', 'Private property and housing', 'Community land and assets', 'agricultural land holdings' and 'WCH'.</p> <p>The study area has been extended to include receptors up to 500 m from the Scheme boundary.</p> <p>Receptor sensitivity and magnitude of impact criteria and significance effect matrix have been updated in line with LA 112 and LA104.</p>
			Community severance	<p>Community severance is now considered under the 'Land use and access' assessment which assesses the change in impact on accessibility restrictions/ severance within the following aspects of the assessment 'community land and assets', 'development land and business' and 'agricultural land holdings'.</p> <p>Receptor sensitivity and magnitude of impact criteria and significance effect matrix have been updated in line with LA 112 and LA104.</p>
			Human Health	No change to study area or methodology.
			Aspects scoped in	<p>Community land was previously scoped out of the assessment. Though there are no areas of community land within the new study area the topic of 'Community land and assets' is scoped into the assessment and reported in the ES to consider any changes to access or severance of community assets (e.g. village halls and health care facilities).</p> <p>Impacts on Agricultural Land Holdings was previously scoped in as part of Chapter 9: Geology and Soils. This aspect is now assessed in Chapter 12: Population and Human Health. No change to study area. Receptor sensitivity and magnitude of</p>

ES Chapter	Guidance Scoping	Guidance ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion
				impact criteria and significance effect matrix have been updated in line with LA 112 and LA104.
			Aspects scoped out	No new aspects have been scoped out of the assessment.
Chapter 13: Road Drainage and the Water Environment	V11, S3, P10: HD45/09 Road Drainage and the Water Environment	LA113 Road Drainage and the Water Environment	Chapter Title	No change.
			Groundwater	No change to study area.
			Surface Water	Receptor sensitivity/ value and magnitude of impact criteria updated in line with LA 113.
			Morphology	Significance of effects matrix updated in line with LA 113 and LA 104.
			Flood Risk	
			Aspects scoped in	No additional aspects scoped in for assessment.
			Aspects scoped out	No new aspects have been scoped out of the assessment.
Chapter 14: Climate	HA 207/07: Air Quality IAN 114/08: Highways Agency carbon calculations and reporting requirements	LA114 Climate	Chapter Title	No change.
			Greenhouse gas impact assessment	No change to study area. GHG emissions as a result of loss of carbon sink/ land use change now considered in the assessment.
			Climate change resilience assessment	No change to study area. Minor changes to the significance matrix in line with LA 114.
			In-combination climate impacts assessment	No change to study area. No change to methodology compliant with LA 114.
			Aspects scoped in	No additional aspects scoped in for assessment.
			Aspects scoped out	No new aspects have been scoped out of the assessment.

ES Chapter	Guidance Scoping	Guidance ES	Environmental Aspect	Change to Scope or Methodology since Scoping Opinion
Chapter 15: Assessment of Cumulative Effects	DMRB V11, S2, P5: HA 205/08 Assessment and Management of Environmental Effects. Planning Inspectorate (2015) Advice Note 17 Cumulative Effects Assessment.	LA104 Environmental assessment and monitoring. Planning Inspectorate (2019) Advice Note 17 Cumulative Effects Assessment.	Chapter title	No change
			Assessment of combined effects	No change to scope or methodology compliant with LA 104.
			Assessment of cumulative effects	No change to scope or methodology compliant with LA 104.