

HS2 Phase 2a: West Midlands - Crewe Competency Statement

Competency statement:

High Speed Rail (West Midlands - Crewe)

Environmental Statements

The HS2 Phase 2a Environmental Statement ('the main ES') and the Supplementary Environmental Statement (SES) and Additional Provision Environmental Statement (AP ES) submitted to Parliament in support of the High Speed Rail (West Midlands - Crewe) Bill in July 2017 and March 2018 respectively, have been prepared by a team of competent experts.

The team comprises HS2 Ltd technical specialists together with experts drawn from leading consultancies who have extensive experience in the production of Environmental Impact Assessments (EIAs) for a range of major infrastructure developments including high speed railways. The individual experts can demonstrate their competence through degree level qualifications, membership of relevant professional institutions and practical experience in undertaking EIAs.

The consultant team that prepared these documents was led by:

- Nick Mitchard, Associate Director, Arup;
- Paul Johnson, Environmental Fellow, Arup; and
- Ian Gilder, Technical Director and Head of Planning, ERM.

Table 1 outlines the team, their qualifications and membership of relevant professional institutions.

Table 1: Qualifications and memberships of the experts responsible for the production of the HS2 Phase 2a Environmental Statements

Discipline	Document(s)	Discipline Lead's Qualifications and Membership of Professional Institutions
Technical author		
Agriculture, forestry and soils	Main ES SES and AP ES	BA (Hons) Geography, University of Durham. MSc Agricultural Economics, University of Reading. Practitioner Member of the Institute of Environmental Management and Assessment (PIEMA). Member of the British Institute of Agricultural Consultants (MBIAC). Member of the British Society of Soil Science (M I Soil Sci).
Air quality	Main ES SES and AP ES	BSc (Hons) Chemical Engineering, University of Exeter. DIC Public Health Engineering, Imperial College, London. PhD Public Health Engineering, Imperial College, London. Fellow of the Institute of Air Quality Management (FIAQM). Member of the Institution of Chemical Engineers.

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Discipline	Document(s)	Discipline Lead's Qualifications and Membership of Professional Institutions
		Member of the Institution of Environmental Science (MIEnvSc). Chartered Engineer (CEng). Chartered Scientist (CSci). Chartered Environmentalist (CEnv).
Climate Change (adaptation and resilience)	Main ES SES and AP ES	BA (Hons) Geography, University of Manchester. PG Dip Environmental Decision Making, Open University. MSc, Interdisciplinary Design for the Built Environment, University of Cambridge. Member of Institute of Environmental Management and Assessment (MIEMA). Chartered Environmentalist (CEnv).
Climate Change (carbon emissions)	Main ES SES and AP ES	BSc (Hons) Environmental Science, University of Stirling. MSc Environmental Management and Technology, Oxford Brookes University. Member of the Institute of Environmental Management and Assessment (MIEMA). Member of the Institution of Environmental Sciences (MIEnvSc). Chartered Environmentalist (CEnv).
Community	Main ES SES and AP ES	BA (Hons) Town and Country Planning, Manchester University. BPI Town and Country Planning, Manchester University. Member of the Royal Town Planning Institute (MRTPI).
Cultural heritage	Main ES SES and AP ES	MA (Hons) Archaeology, University of Edinburgh. Member of the Chartered Institute for Archaeologists (MCIfA).
Ecology and biodiversity	Main ES	BSc (Hons) Biological Sciences, Royal Holloway College, University of London. MPhil, University of London. Member of the Chartered Institute of Ecology and Environmental Management (MCIEEM). Chartered Environmentalist (CEnv).
	SES and AP ES	BA (Hons) Geography, University of Nottingham. MSc Environmental Management, University of Nottingham. Member of the Chartered Institute of Ecology and Environmental Management (MCIEEM). Chartered Environmentalist (CEnv).
Electromagnetic interference	Main ES SES and AP ES	Electrical Engineering Apprenticeship, Royal Navy. BTEC Marine Engineering, Electrical, Royal Navy.

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		<p>Safety Critical System, Institution of Electrical Engineers.</p> <p>Railway Signalling and Control Systems, Institution of Electrical Engineers.</p> <p>Health and Safety at Work Management, Birmingham University.</p> <p>Electromagnetic Compatibility in Railways, York EMC Services.</p> <p>Fast Track Systems Engineering, University of Oxford.</p>
Health	Main ES	<p>BSc Physics and Meteorology, Reading University.</p> <p>Chartered Meteorologist (CMet).</p> <p>Chartered Scientist (CSci).</p> <p>Vice-Chairman, Institute of Air Quality Management (IAQM).</p> <p>Fellow of the Royal Meteorological Society (FRMetS).</p> <p>Member of the Air and Waste Management Association.</p>
	SES and AP ES	<p>BSc (Hons) Environmental Conservation and Management with Chemistry, Nottingham Trent University.</p> <p>Dip Environmental Monitoring and Assessment, London South Bank University.</p> <p>Chartered Environmentalist (CEnv).</p>
Land quality	Main ES SES and AP ES	<p>BEng Civil and Structural Engineering, University of Sheffield.</p> <p>MSc Geotechnical Engineering, University of Surrey.</p> <p>Member of the Institution of Civil Engineers (MICE).</p> <p>Chartered Engineer (CEng).</p>
Landscape and visual	Main ES	<p>BA (Hons) Landscape Architecture, University of Greenwich.</p> <p>Dip Landscape Architecture, University of Greenwich.</p> <p>Chartered Member of the Landscape Institute (CMLI).</p>
	SES and AP ES	<p>BSc (Hons) Landscape Design and Plant Science, University of Sheffield.</p> <p>Dip Landscape Architecture, University of Sheffield.</p> <p>Chartered Member of the Landscape Institute (CMLI).</p>
Major accidents and natural disasters	Main ES SES and AP ES	<p>MEng (Hons) Civil Engineering, Imperial College, London.</p> <p>PhD Earthquake Loss Estimations: Modelling Losses due to Ground Failure, Imperial College London.</p> <p>Member of the Institution of Civil Engineers (MICE).</p>

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		Chartered Engineer (CEng).
Planning	Main ES SES and AP ES	BA (Hons) Humanities, majoring in Urban Geography, Bristol Polytechnic. MA Town and Country Planning, University of the West of England.
Socio-economics	Main ES SES and AP ES	BSc (Hons) Town Planning Studies, University of Wales. Dip Town Planning, University of Wales. MBA, University of Aston. MSc Advanced Energy and Environmental Studies, University of East London. Member of the Royal Town Planning Institute (MRTPI).
Sound, noise and vibration	Main ES SES and AP ES	BEng (Hons) Engineering Acoustic and Vibration, University of Southampton. Member of the Institute of Acoustics (IOA). Chartered Engineer (CEng).
Traffic and transport	Main ES SES and AP ES	BSc (Hons) Mathematics and Economics, University of Salford. MSc (Hons) Transport Engineering and Planning, University of Salford. Member of the Chartered Institution of Highways and Transportation (MCIHT).
Waste and material resources	Main ES SES and AP ES	Dipl.Ing. (FH) Environmental Technology (Waste Management and Recycling Technology), Hochschule Bremen. Member of Constructing Excellence, Building and Environment Working Group. Member of the British Standards Institution Steering Group PAS908 Automated Waste Collection Systems. Member of the Institution of Civil Engineers (MICE) London Waste Panel. Chartered Engineer (CEng). Chartered Waste Manager. Chartered Water and Environmental Manager (CWEM).
Water resources and flood risk	Main ES SES and AP ES	MA (Hons) Geography, Edinburgh University. PGDip Engineering Hydrology, Newcastle University. Fellow of the Royal Geographical Society (FRGS). Fellow of the Royal Society of Arts (FRSA). Member of the Institution of Environmental Science (MIEnvSc). Member of the British Hydrological Society (BHS). Chartered Scientist (CSci).

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		Chartered Water and Environmental Manager (CWEM).
EIA management and lead reviewers		
Lead author (Non-technical Summary and Volume 1)	Main ES	BSc Geography, Queen's University, Belfast. MSc Environmental Planning, Queen's University, Belfast. Member of the Royal Town Planning Institute (MRTPI).
	SES and AP ES	BA (Hons) Planning Studies, Oxford Brookes University. PGDip Town and Country Planning (EIA), Oxford Brookes University. Member of the Royal Town Planning Institute (MRTPI).
Lead author (Volume 2)	Main ES	BEng (Hons) Mineral and Environmental Engineering, Leeds University. Member of the Institution of Environmental Sciences (MEnvSci). Chartered Environmentalist (CEnv).
	SES and AP ES	BSc (Hons) Environmental Pollution Science, University of Glamorgan. National Diploma in Pollution Assessment and Control, Sligo Institute of Technology. National Certificate in Food Science, Sligo Institute of Technology. Member of the Institution of Environmental Sciences (MIEnvSc). Chartered Environmentalist (CEnv).
Lead author (Volume 3)	Main ES	BSc Geography, University of Plymouth. MSc Land and Water Management, Cranfield University. Member of the Institution of Environmental Sciences (MIEnvSc). Chartered Environmentalist (CEnv).
	SES and AP ES	BEng (Hons) Mineral and Environmental Engineering, Leeds University. Member of the Institution of Environmental Sciences (MEnvSci). Chartered Environmentalist (CEnv).
Lead author (Volume 4)	Main ES	BA (Hons) Planning Studies, Oxford Brookes University. PGDip Town and Country Planning (EIA), Oxford Brookes University. Member of the Royal Town Planning Institute. (MRTPI).
Lead reviewer: Ian Gilder	Main ES	BA (Hons) Geography, University of Cambridge.

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	SES and AP ES	<p>MA University of Cambridge.</p> <p>PGDip Town and Country Planning, Anglia Polytechnic University (Dip TP).</p> <p>Member of the Royal Town Planning Institute (MRTPI).</p> <p>Fellow of Royal Society of Arts (FRSA).</p>
Lead reviewer: Paul Johnson	Main ES SES and AP ES	<p>BSc (Hons) Botany, University of Hull.</p> <p>PhD Applied Ecology, University of Liverpool.</p> <p>Fellow of the Institution of Environmental Sciences (FIEnvSc).</p> <p>Fellow of the Royal Society of Biology (FSB).</p> <p>Member of the Royal Town Planning Institute (MRTPI).</p> <p>Chartered Scientist (CSci).</p> <p>Chartered Environmentalist (CEnv).</p> <p>Chartered Biologist (CBiol).</p>
Lead reviewer: Nick Mitchard	Main ES SES and AP ES	<p>BA (Hons) Business Studies, De Montfort University.</p> <p>MSc Environmental Management, University of Nottingham.</p> <p>Member of the Institution of Environmental Sciences (MIEnvSc).</p> <p>Associate Member of the Institute of Environmental Management and Assessment (AIEMA).</p> <p>Chartered Environmentalist (CEnv).</p>

This information is provided in support of the statements set out in Volume 1 of the main ES Volume 1 and the SES and AP ES.

