

High Speed Rail (Crewe – Manchester)

Background information and data

Land quality

BID LQ-002-OR003

Off-route works: Annandale depot

Land quality baseline data

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High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

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1 Introduction

- 1.1.1 This report presents land quality baseline data highlighting areas of contamination originating from historical and current land use, and mineral and geoconservation resources in the study area.
- 1.1.2 Baseline data has been collected for the Proposed Scheme off-route works in relation to the Annandale depot area.
- 1.1.3 Sites (for example ADEP-02) referred to throughout this report are contained in the Volume 5 Map Book (see Environment Statement, Volume 5 Land quality Map Book, Maps LQ-01-803 to LQ-01-804)¹.
- 1.1.4 The Environmental Impact Assessment Scope and Methodology Report (SMR) (see Environment Statement, Volume 5, Appendix CT-001-00001)² should be referred to for details of the land quality assessment methodology.

¹ High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Environmental Statement, Volume 5 Land quality Map Book*. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-environmental-statement>.

² High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Environmental Statement, Environmental Impact Assessment Scope and Methodology Report*, Volume 5, Appendix CT-001-00001. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-environmental-statement>.

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2 Receptor information

- 2.1.1 This section provides further receptor information for sites that have been evaluated in stages C and D of the land quality assessment and assessed for the Annandale depot area (see Environmental Statement, Volume 5, Appendix LQ-001-OR003).
- 2.1.2 For each site or group of sites, further information on each site receptor can be found in Table 1 to Table 4.
- 2.1.3 For clarity, 'on-site' in this report means 'within the land required for the construction of the Proposed Scheme' and 'off-site' refers to land beyond this boundary, but within the study area. The sites and groups of sites for assessment in this area include:
- on-site:
 - railway land;
 - storage yard; and
 - potentially infilled reservoir.
 - off-site:
 - depot.

Table 1: Receptors – Railway land (on-site)

Site title (site ID)	Sensitive land use (human receptor)	Aquifer designation	Surface watercourse	Geological and ecological designations	Property e.g. buildings and structures	Geoconservation sites
West Coast Mainline railway (ADEP-02)	Railway staff/maintenance workers (existing site users) Residents, school users, farm workers, workers on commercial/ industrial sites, walkers (adjacent site users*)	Moderate to high productivity aquifers – alluvium and river terrace deposits High productivity aquifer – St Bees Sandstone Member	None	None	Railway infrastructure (existing) Residential and commercial properties (adjacent*)	None

* adjacent site receptors located outside the land required for the construction of the Proposed Scheme (off-site) remain and are therefore included in the construction stage assessment. This applies to human and property receptors only.

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Table 2: Receptors – Storage yard (on-site)

Site title (site ID)	Sensitive land use (human receptor)	Aquifer designation	Surface watercourse	Geological and ecological designations	Property e.g. buildings and structures	Geoconservation sites
Storage yard (ADEP-05)	Railway staff/workers (existing site users) Residents, farm workers, railway staff, walkers (adjacent site users*)	High productivity aquifer – St Bees Sandstone Member	None	None	Farm buildings, railway line (adjacent*)	None

* adjacent site receptors located outside the land required for the construction of the Proposed Scheme (off-site) remain and are therefore included in the construction stage assessment. This applies to human and property receptors only.

Table 3: Receptors – Potentially infilled reservoir (on-site)

Site title (site ID)	Sensitive land use (human receptor)	Aquifer designation	Surface watercourse	Geological and ecological designations	Property e.g. buildings and structures	Geoconservation sites
Former potentially infilled reservoir (ADEP-07)	Hotel/venue guests and staff (existing and adjacent site users*)	High productivity aquifer – St Bees Sandstone Member	None	None	None (existing) Commercial property (adjacent*)	None

* adjacent site receptors located outside the land required for the construction of the Proposed Scheme (off-site) remain and are therefore included in the construction stage assessment. This applies to human and property receptors only.

Table 4: Receptors – Depot (off-site)

Site title (site ID)	Sensitive land use (human receptor)	Aquifer designation	Surface watercourse	Geological and ecological designations	Property e.g. buildings and structures	Geoconservation sites
Depot (ADEP-16)	Workers (existing site users) School users and residential site users	High productivity aquifer – St Bees Sandstone Member	Kirkpatrick Burn, 70m south, (tributary of Kirtle Water, poor WFD status)	None	Depot building (on-site) School and residential (adjacent*)	None

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Site title (site ID)	Sensitive land use (human receptor)	Aquifer designation	Surface watercourse	Geological and ecological designations	Property e.g. buildings and structures	Geoconservation sites
	(adjacent site users*)					

** adjacent site receptors located outside the land required for the construction of the Proposed Scheme (off-site) remain and are therefore included in the construction stage assessment. This applies to human and property receptors only.*

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3 Minerals data

- 3.1.1 There are no mineral designations within the Annandale depot area.
- 3.1.2 All relevant information associated with minerals, when considered as a resource, is presented in Environmental Statement, Volume 4, Off-route effects, Section 6.8³.

³ High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Environmental Statement, Volume 4, Off-route effects*. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-environmental-statement>.

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4 Geological Sites of Special Scientific Interest and Local Geological Sites

- 4.1.1 No geological Sites of Special Scientific Interest (SSSI) or Local Geological Sites (LGS) are present in the Annandale depot area.

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5 Other sources of data and information

5.1.1 Other sources of baseline data and information that are deemed necessary include:

- data gained from local authorities regarding contaminated land;
- landfill site data supplied by the local authority and the Scottish Environmental Protection Agency (SEPA); and
- foot and mouth burial sites.

5.2 Local authorities contaminated site data

5.2.1 Sites potentially considered as contaminated land by Dumfries and Galloway Council within the study area have been listed in Table 5. None are reported to be prioritised for inspection by the council.

Table 5: Summary of contaminated site data from local authorities

Site location/ grid reference	Relevant site ID	Description	Comment
326810 570800	ADEP-34	Lorry Park: Made ground, vehicles. Site investigation carried out, planning permission granted for housing with condition requiring remediation. Planning reference 19/0413/FUL	Not considered in the detailed assessment
327410 570560	ADEP-22	Smithy, metalworks, active 1840-1909	Not considered in the detailed assessment
327510 570580	ADEP-15	Garage and motor repair workshop	Not considered in the detailed assessment
		Garage: Petrol tank. Underground tank in use 2010. Exact location not recorded	Not considered in the detailed assessment
		Garage: Tanks. One 500 gallon underground tank installed 1927, two 500 gallon underground tanks installed 1935, all steam cleaned and removed 1979. One 3000 gallon tank and one 500 gallon tank above ground paraffin remaining	Not considered in the detailed assessment
327560 570540	ADEP-23	Smithy, metalworks, active 1896-1955	Not considered in the detailed assessment
327560 570430	ADEP-16 (on-site)	Coal yard, depot, active 1896-1955	Identified as a potential contamination site and included in the detailed assessment
327540 570340	ADEP-24	Cove Quarry (sandstone), potential landfill, active 1840-1909	Not considered in the detailed assessment
328560 570000	-	The Mill: Petrol tank, 500 gallon underground tank changed to diesel by 1983 Supplied location in B7076. Exact location of tank not able to be determined from mapping therefore no polygon assigned. The Mill Hotel	Not considered in the detailed assessment

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Site location/ grid reference	Relevant site ID	Description	Comment
		sits outside of land required for the construction of the Proposed Scheme	
329620 570050	ADEP-25	Gravel pit, potential infill	Not considered in the detailed assessment
330260 569170	ADEP-03	Gretna depot: Tanks. Depot during M74 motorway construction. Above ground tanks, petrol, diesel, gas oil. One underground petrol tank removed by 1983. Possibly petrol station before depot but no records available	Not considered in the detailed assessment
330964 569118	ADEP-19	Gretna Reservoir/waterworks	Not considered in the detailed assessment
331440 569830	ADEP-01	Poultry breeding and research station, active 1971-current	Not considered in the detailed assessment

5.3 Planning applications

5.3.1 No historical ground investigation reports submitted as part of planning applications were identified in the study area.

5.4 Landfill sites

5.4.1 A registered landfill is identified in the east of the study area. Available details are outlined in Table 6.

Table 6: Summary of landfill sites

Landfill permit number and location	Relevant site ID	Description	Comment
WML/W/0000202 (35/L/93), Woodhouse Mains (M74), Kirtlebridge, Lockerbie, Dumfriesshire	ADEP-33	Name: Castelli & Girolla Licence Status: Closed Max. input: Large (Equal to or greater than 75,000 tonnes and less than 250,000 tonnes per year) Located 180m to the north of the land required for the construction of the Proposed Scheme	Not considered in the detailed assessment

5.5 Foot and mouth burial sites

5.5.1 Information provided by Dumfries and Galloway Council regarding foot and mouth burial sites and pyre sites located within the study area is presented in Table 7. The locations of the sites are unknown.

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Table 7: Foot and mouth, and pyre sites in the Annandale depot area

Site name	Description	Comment
Unknown, pyre	275 cattle, active 2001	Not considered in the detailed assessment
Unknown, pyre	Two differing reports, one states 325 cattle and 739 sheep, one states 338 cattle and 973 sheep, active 2001	Not considered in the detailed assessment

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6 Site visit records

- 6.1.1 No site visits have been undertaken in the Annandale depot area owing to access restrictions.

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7 References

British Geological Survey (2019), *BGS Geology 50k DiGMapGN-50 WMS, superficial deposits and bedrock geology*. Available online at: <https://www.bgs.ac.uk/datasets/bgs-geology-50k-digmapgb/>.

Department for Environment, Food and Rural Affairs and Environment Agency (2002), *Potential Contaminants for the Assessment of Land*. R&D Publication CLR8.

Dumfries and Galloway Council, *Local Development Plan, Supplementary Guidance, Mineral resources, adopted 22nd January 2016*. Available online at: https://www.dumgal.gov.uk/media/17424/LDP-Supplementary-Guidance-Mineral-Resources/pdf/Mineral_resources.pdf.

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High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Environmental Statement, Environmental Impact Assessment Scope and Methodology Report, Volume 5, Appendix CT-001-00001*. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-environmental-statement>.

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