

High Speed Rail (Crewe – Manchester)

Background information and data accompanying SES2 and AP2 ES

Land quality

BID LQ-002-00000 SES2 and AP2 ES

Land quality baseline data

MA01: Hough to Walley's Green

MA02: Wimboldsley to Lostock Gralam

MA03: Pickmere to Agden and Hulseheath

MA06: Hulseheath to Manchester Airport

MA07: Davenport Green to Ardwick

MA08: Manchester Piccadilly Station



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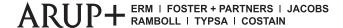
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Land quality
BID LQ-002-00000 SES2 and AP2 ES
MA01, MA02, MA03, MA06, MA07 and MA08
Land quality baseline data

Contents

1	Intro	oduction	3
	1.2	Corrections	4
Pai	t 1: S	upplementary Environmental Statement 2	9
2	Rece	eptor information	9
3	Min	erals data	13
4	Geo	logical Sites of Special Scientific Interest and Local Geological Sites	14
5	Oth	er sources of data and information	15
	5.2	Local authorities contaminated site data	15
	5.3	Landfill site data	15
	5.4	Other regulatory data	15
6	Site	visit records	18
Pai	t 2: A	dditional Provision 2 Environmental Statement	19
7	Rece	eptor information	19
8	Min	erals data	23
9	Geo	logical Sites of Special Scientific Interest and Local Geological Sites	24
10	Oth	er sources of data and information	25
11	Site	visit records	26
12	Refe	erences	27
Tal	oles		
Tab	ole 1: 9	Summary of corrections to the Background Information and Data (BID) Land quality baseline data reports that accompanied the main ES	5
Tab	le 2: I	Receptors – former dry cleaners (on-site)	g
Tab	le 3: I	Receptors – waste transfer facility (on-site)	10
Tab	ole 4: I	Receptors – garage workshops and industrial estate grouped for assessment (off-site)	10
Tab	le 5: I	Receptors – ambulance station (off-site)	11
Tab	le 6: I	Receptors – former printers (off-site)	12
Tab	le 7: 9	Summary of responses in relation to contaminated site data from local	
		authorities	15
Tah	le 8. (Summary of landfill sites	15

Table 9: Summary of other regulatory data in the Hough to Walley's Green study area (MA01)	16
Table 10: Summary of other regulatory data in the Wimboldsley to Lostock Gralam study area (MA02)	16
Table 11: Summary of other regulatory data in the Pickmere to Agden and Hulseheath study area (MA03)	16
Table 12: Summary of other regulatory data in the Hulseheath to Manchester Airport study area (MA06)	17
Table 13: Summary of other regulatory data in the Davenport Green to Ardwick study area (MA07)	17
Table 14: Summary of other regulatory data in the Manchester Piccadilly Station study area (MA08)	17
Table 15: Receptors – freight terminal and former depots grouped for assessment (on-site)	19
Table 16: Receptors – former depot and scrap yard (on-site)*	20
Table 17: Receptors – petrol filling stations (off-site)	21

Land quality
BID LQ-002-00000 SES2 and AP2 ES
MA01, MA02, MA03, MA06, MA07 and MA08
Land quality baseline data

1 Introduction

- 1.1.1 This document presents land quality baseline data highlighting areas of contamination originating from historical and current land use, and mineral and geoconservation resources used in the Supplementary Environmental Statement 2 (SES2) and Additional Provision 2 Environmental Statement (AP2 ES)¹.
- 1.1.2 This report covers the following community areas (CA):
 - Hough to Walley's Green (MA01);
 - Wimboldsley to Lostock Gralam (MA02);
 - Pickmere to Agden and Hulseheath (MA03);
 - Hulseheath to Manchester Airport (MA06);
 - Davenport Green to Ardwick (MA07); and
 - Manchester Piccadilly Station (MA08).
- 1.1.3 This document details land quality baseline data not reported in the Background Information and Data (BID) documents² (the main BID reports) that accompanied the High Speed Two (HS2) High Speed Rail (Crewe Manchester) Environmental Statement (ES) published in 2022³ (the main ES), or the BID document that accompanied the Supplementary Environmental Statement 1 (SES1) and Additional Provision 1 Environmental Statement (AP1 ES)⁴ published in 2022⁵ (the SES1 and AP1 ES BID reports).

¹ High Speed Two Ltd (2023), High Speed Rail (Crewe – Manchester), *Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement*. Available online at: https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-supplementary-environmental-statement-2-and-additional-provision-2-environmental-statement.

² High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Background Information and Data*. Available online at: https://www.gov.uk/government/collections/hs2-phase2b-crewe-manchester-environmental-statement.

³ High Speed Two Ltd (2022) High Speed Rail (Crewe – Manchester), *Environmental Statement*. Available online at: https://www.gov.uk/government/collections/hs2-phase2b-crewe-manchester-environmental-statement.

⁴ High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Background Information and Data accompanying Supplementary Environmental Statement 1 and Additional Provision 1 Environmental Statement*. Available online at: https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-supplementary-environmental-statement-1-and-additional-provision-1-environmental-statement.

⁵ High Speed Two Ltd (2022) High Speed Rail (Crewe – Manchester), *Supplementary Environmental Statement 1 and Additional Provision 1 Environmental Statement*. Available online at: https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-supplementary-environmental-statement-1-and-additional-provision-1-environmental-statement.

Land quality
BID LQ-002-00000 SES2 and AP2 ES
MA01, MA02, MA03, MA06, MA07 and MA08
Land quality baseline data

- 1.1.4 This report is structured into two parts: Part 1 data used in the SES2, and Part 2 data used in the AP2 ES and should be read in conjunction with the SES2 and AP2 ES Land quality report (see SES2 and AP2 ES Volume 5, Appendix: LQ-001-00000).
- 1.1.5 Maps relevant to this report are contained in the SES2 and AP2 ES Volume 5, Land quality Map Book: Map Series LQ-01 Land Quality. Sites carried through to assessment are given a reference number. In this report they are referred to as 'MA02-365' and on the maps they are referred to as '02-46'.
- 1.1.6 The Environmental Impact Assessment Scope and Methodology Report⁶ (see main ES Volume 5, Appendix: CT-001-00001) should be referred to for details of the land quality assessment methodology.
- 1.1.7 In order to differentiate between the original scheme and the subsequent changes, the following terms are used:
 - 'the original scheme' the Bill scheme submitted to Parliament in 2022, which was assessed in the main ES;
 - 'the SES1 scheme' the original scheme with any changes described in SES1 that are within the existing powers of the Bill;
 - 'the AP1 revised scheme' the original scheme as amended by SES1 changes and AP1 amendments;
 - 'the SES2 scheme' the original scheme with any changes described in SES1 (submitted in July 2022) and the SES2; and
 - 'the AP2 revised scheme' the original scheme as amended by SES1 and SES2 changes (as relevant) and AP2 amendments.

1.2 Corrections

- 1.2.1 The need for a number of corrections to the contents of the BID reports that accompanied the main ES (the main BID reports) has been identified.
- 1.2.2 Table 1 provides the following:
 - corrections to factual inaccuracies reported in the main BID Land quality baseline data reports²; and
 - the reason for the correction, the original text from the main BID Land quality baseline data report and, where applicable, revised text.

⁶ 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-phase2b-crewe-manchester-environmental-statement.

Table 1: Summary of corrections to the Background Information and Data (BID) Land quality baseline data reports that accompanied the main ES

Reference in the main BID report that accompanied the main ES	Reason for correction	Text in the relevant main BID report	Revised text
MA01: Hough to Walley's Green Paragraph 2.1.3, Section 2, Land quality BID LQ-002-0MA01	The main BID incorrectly omitted one additional land contamination site from the land quality background information and data document for MA01.	None included.	Section 2, Table 5 of this BID report summarises receptor information of these additional land contamination sites. Assessment of sites is provided in Appendix: LQ-001-00000, Section 3, Part 1.
MA06: Hulseheath to Manchester Airport Paragraph 5.2.1, Land quality BID LQ- 002-0MA06	The main BID incorrectly omitted the contaminated land reports provided by Manchester City Council.	Paragraph 5.2.1: Trafford Metropolitan Borough Council (TMBC) have no listed sites in the study area and no information has been made available from Manchester City Council (MCC).	Paragraph 5.2.1: TMBC have no listed sites in the study area. MCC provided numerous land contamination reports with no specific contaminated land sites identified.
MA06: Hulseheath to Manchester Airport Section 5.3, Table 12, Land quality BID LQ-002-0MA06	The main BID incorrectly omitted the Woodhouse Park Landfill from the land quality background information and data document for MA06.	None included.	Section 5.5, Table 12. Add a new row beneath last row. Landfill permit number and location Environment Agency reference EAHLD16964. It is located off Ringway Road within the footprint of Manchester Airport and adjacent highways. Relevant Site ID Located partially within MA06-110 (Manchester Airport) Description Woodhouse Park Landfill located within Manchester Airport adjacent to an area of proposed highway/utility works was identified by

Reference in the main BID report that accompanied the main ES	Reason for correction	Text in the relevant main BID report	Revised text
			that the small area of landfill received inert fill material from construction activities at the airport. The date of deposition is unknown. Comment
			Not considered in the detailed assessment.
MA07: Davenport Green to Ardwick Paragraph 2.1.3, Section 2, Land quality BID LQ-002-0MA07	The main BID incorrectly omitted three additional land contamination sites from the land quality background information and data document for MA07.	None included.	Section 2, Table 2, Table 3 and Table 4 of this BID report summarises receptor information of these additional land contamination sites. Assessment of sites is provided in Appendix: LQ-001-00000, Section 3, Part 1.
MA07: Davenport Green to Ardwick Paragraph 5.2.1, Land quality BID LQ- 002-0MA07	The main BID incorrectly omitted the contaminated land reports provided by Manchester City Council.	Paragraph 5.2.1: MCC did not provide any data on potentially contaminated sites within the study area.	Paragraph 5.2.1: MCC provided numerous land contamination reports with no specific contaminated land sites identified.
MA07: Davenport Green to Ardwick Paragraph 5.2.1, Land quality BID LQ- 002-0MA07	The main BID incorrectly omitted the Clayton Vale and Bradford Gasworks landfill sites from the land quality background information and data document for MA07.	None included.	Paragraph 5.2.1: The following landfill sites and information were identified by MCC: Clayton Vale and Bradford Gasworks landfills located at the north end of the study area around the Regional Athletics Arena and Etihad Stadium. Neither landfill site is considered in the detailed assessment. Clayton Vale landfill (Environment Agency reference EAHLD16480) is a historical landfill. Waste deposition commenced prior to 1909. Larger scale tipping started in the early 1920s. The fill is thought to comprise domestic and trade waste, pulverised fuel ash and colliery

Reference in the main BID report that accompanied the main ES	Reason for correction	Text in the relevant main BID report	Revised text
			spoil. Tipping ceased prior to 1974 and the site was disused by 1981. Bradford Gasworks landfill (Environment Agency reference EAHLD1649) is a historical landfill. It comprises made ground and structures at depth associated with the former Bradford Gasworks. Fill consists of overburden of largely inert landfilled materials up to 7m in depth and stabilised materials. Some remediation of contamination was reported to have been carried out between 1988 and 1993 and in 1997. Some contamination is reported to remain.
MA07: Davenport Green to Ardwick Paragraph 5.2.2, Land quality BID LQ- 002-0MA07	The main BID incorrectly omitted petrol filling station information provided by Manchester City Council.	Paragraph 5.2.2: Data on fuel stations was obtained and reviewed via Envirocheck Reports.	Paragraph 5.2.2: Data on fuel stations was obtained and reviewed via Envirocheck Reports and supplemented by data provided by MCC.
MA08: Manchester Piccadilly Station Paragraph 2.1.3, Section 2, Land quality BID LQ-002-0MA08	The main BID incorrectly omitted three additional land contamination sites from the land quality background information and data document for MA08.	None included.	Section 2, Table 4 and Table 6 of this BID report summarises receptor information of these additional land contamination sites. Assessment of sites is provided in Appendix: LQ-001-00000, Section 3, Part 1.
MA08: Manchester Piccadilly Station Paragraph 5.2.1, Land quality BID LQ- 002-0MA08	The main BID incorrectly omitted the contaminated land reports provided by Manchester City Council.	Paragraph 5.2.1: MCC did not provide any data on potentially contaminated sites within the study area.	Paragraph 5.2.1: MCC provided numerous land contamination reports with no specific contaminated land sites identified.

Reference in the main BID report that accompanied the main ES	Reason for correction	Text in the relevant main BID report	Revised text
MA08: Manchester Piccadilly Station Paragraph 5.2.1, Land quality BID LQ- 002-0MA08	The main BID incorrectly omitted the Palmerston Street Landfill from the land quality background information and data document for MA08.	None included.	Paragraph 5.2.1 The following landfill site was identified by MCC: Palmerston St (MA08-78) as described in Table 15, Volume 2 of the main ES. Further information provided by MCC indicate that a Waste Management Licence (RD/LIC/440/86) was granted for the site in August 1986. The licence permitted the disposal of spoil generated by the construction of the Inner Relief Route on an area of land bounded by Palmerston Street, Great Ancoats Street and the River Medlock. The conditions of the licence also state that the spoil was likely to contain road materials and materials removed from sites previously cleared by demolition. The spoil, along with the remains of a railway embankment located on the site were then regraded to form an area of landscaped open space. This landfill was considered in the detailed assessment in the main ES.
MA08: Manchester Piccadilly Station Paragraph 5.2.2, Land quality BID LQ- 002-0MA08	The main BID incorrectly omitted petrol filling station information provided by Manchester City Council.	Paragraph 5.2.2: Data on fuel stations was obtained and reviewed via Envirocheck Reports.	Paragraph 5.2.2: Data on fuel stations was obtained and reviewed via Envirocheck Reports and supplemented by data provided by MCC.

Land quality
BID LQ-002-00000 SES2 and AP2 ES
MA01, MA02, MA03, MA06, MA07 and MA08
Land quality baseline data

Part 1: Supplementary Environmental Statement 2

2 Receptor information

- 2.1.1 This section details additional receptors that have been identified through a review of additional baseline data since the publication of the BID reports that accompanied the main ES and SES1 and AP1 ES. It also details any additional receptors that have been identified as a result of changes to committed developments¹.
- 2.1.2 Table 2 to Table 6 detail identified receptors that are relevant to SES2 changes. Section 7 details identified receptors that are relevant to AP2 changes.
- 2.1.3 For clarity, 'on-site' in this report means within the land required for the construction of the AP2 revised scheme and 'off-site' refers to land beyond this boundary, but within the study area. The site and group of sites for assessment in this area comprise:
 - on-site:
 - former dry cleaners; and
 - waste transfer facility.
 - off-site:
 - ambulance station;
 - garage workshops and industrial estate; and
 - former printers.

Table 2: Receptors - former dry cleaners (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 dry cleaners (MA07- 210)	Workers in commercial/ industrial area (existing and adjacent* site users)	Secondary Undifferentiated Aquifer – glacial till Principal Aquifer – Chester Formation	None	None	Buildings, foundations and services (existing and adjacent*)	None

^{*} adjacent site receptors located outside the land required for the construction of the SES2 scheme (off-site) remain and are therefore included in the construction stage assessment. This applies to human and property receptors only.

Table 3: Receptors - waste transfer facility (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
Waste transfer facility (MA07- 212)	Workers in commercial/ industrial area (existing and adjacent* site users)	Secondary Undifferentiated Aquifer – glacial till Principal Aquifer – Chester Formation. Secondary B Aquifer – Manchester Marls Formation	None	None	Buildings, foundations and services (existing and adjacent*)	None

^{*} adjacent site receptors located outside the land required for the construction of the SES2 scheme (off-site) remain and are therefore included in the construction stage assessment. This applies to human and property receptors only.

Table 4: Receptors - garage workshops and industrial estate grouped for assessment (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
Garage workshop (MA07- 217)	Workers in commercial/ industrial area (existing site users) Residents, and workers in commercial/ industrial area (adjacent* site users)	Secondary Undifferentiate d Aquifer – glacial till Principal Aquifer – Collyhurst Sandstone Formation	Platt Brook (culverted) 15m north (Water Framework Directive (WFD) status moderate)	None	Buildings, foundations and services (existing and adjacent*)	None
Garage workshop (MA08- 172)	Workers in commercial/ industrial area (existing and	Secondary Undifferentiated Aquifer – glacial till	River Medlock 250m north (WFD status moderate)	None	Buildings, foundations and services (existing and adjacent*)	None

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)	Principal Aquifer – Chester Formation			Railway infrastructur e (adjacent*)	
Industrial estate (MA08- 168)	Workers in commercial/ industrial area (existing site users) Residents, public open space users, sports facility users and workers in commercial/ industrial area (adjacent* site users)	Secondary Undifferentiate d Aquifer – glacial till Principal Aquifer – Chester Formation Secondary B Aquifer – Manchester Marls Formation	None	None	Buildings, foundations and services (existing and adjacent*) Railway infrastructur e (adjacent*)	None

^{*} adjacent site receptors located outside the land required for the construction of the SES2 scheme (off-site) remain and are therefore included in the construction stage assessment. This applies to human and property receptors only.

Table 5: Receptors – ambulance station (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
Ambulance station (MA01-388)	and visitors	Secondary A Aquifer – alluvium (20m north) Secondary Undifferentiated Aquifer – glacial till Secondary B Aquifer – Sidmouth	None	None	Buildings, foundations and services (existing and adjacent*)	None

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
	industrial area (adjacent* site users)	Mudstone Formation				

^{*} adjacent site receptors located outside the land required for the construction of the SES2 scheme (off-site) remain and are therefore included in the construction stage assessment. This applies to human and property receptors only.

Table 6: Receptors – former printers (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
Former printers (MA08- 165)	Workers in commercial/ industrial area (existing site users) Residents, public open space users and workers in commercial/ industrial area (adjacent* site users)	Secondary Undifferentiated Aquifer – glacial till Principal Aquifer – Chester Formation	Ashton Canal 75m north-west (WFD status not assessed) Water feature within residential and commercial buildings 180m north-east (WFD status not assessed)	None	Buildings, foundations and services (existing and adjacent*)	None

^{*} adjacent site receptors located outside the land required for the construction of the SES2 scheme (off-site) remain and are therefore included in the construction stage assessment. This applies to human and property receptors only.

Land quality
BID LQ-002-00000 SES2 and AP2 ES
MA01, MA02, MA03, MA06, MA07 and MA08
Land quality baseline data

3 Minerals data

3.1.1 No additional minerals data is available from that reported in the BID reports that accompanied the main ES and SES1 and AP1 ES.

Land quality
BID LQ-002-00000 SES2 and AP2 ES
MA01, MA02, MA03, MA06, MA07 and MA08
Land quality baseline data

4 Geological Sites of Special Scientific Interest and Local Geological Sites

4.1.1 No additional geological Sites of Special Scientific Interest (SSSI) or Local Geological Sites (LGS) from those reported in the BID reports that accompanied the main ES and SES1 and AP1 ES are present in any of the study areas.

Land quality
BID LQ-002-00000 SES2 and AP2 ES
MA01, MA02, MA03, MA06, MA07 and MA08
Land quality baseline data

5 Other sources of data and information

5.1.1 Other sources of baseline data and information reviewed include regulatory data relating to environmental permits, pollution incidents and other indicators of possible land contamination sources.

5.2 Local authorities contaminated site data

5.2.1 Local authorities were contacted with respect to land contamination information they hold and updates to data are listed in Table 7.

Table 7: Summary of responses in relation to contaminated site data from local authorities

Local Planning Authority	Land contamination site data
Cheshire East Council (CEC)	CEC provided a summary of land contamination data in September 2020 which is reported in the main ES. A further data set was provided by the council in September 2022. No additional potential land contamination sites were identified in the most recent data set.
Cheshire West and Chester Council (CWCC)	CWCC was consulted in August 2022 with respect to potential land contamination sites in the AP2 revised scheme. Information from the council database was provided as screenshots of sites identified by the council overlain with data from the main ES. No significant omissions from the main ES were highlighted by the council.
Manchester City Council (MCC)	MCC confirmed that there were no updates to the land contamination data they provided for the main ES.

5.3 Landfill site data

5.3.1 Table 8 presents additional information provided by CEC regarding landfill sites within the study area, identified within the Wimboldsley to Lostock Gralam area.

Table 8: Summary of landfill sites

Landfill permit number and location	Relevant site ID	Description	Comment
The Razzer, Thomas Street, Crewe. No permit number provided.	MA01-132 Brickfield	None provided	Assessed as part of the main ES as an infilled brick works (MA01-132).

5.4 Other regulatory data

5.4.1 Since the publication of the BID reports that accompanied the main ES and SES1 and AP1 ES environmental regulatory data has been updated and reviewed. Regulatory data reviewed includes information on pollution incidents (major, significant and minor categories), radioactive and hazardous substances consents, environmental permits (previously

Land quality
BID LQ-002-00000 SES2 and AP2 ES
MA01, MA02, MA03, MA06, MA07 and MA08
Land quality baseline data

integrated pollution control and integrated pollution prevention and control licences), and ecological receptors⁷.

5.4.2 Details of updated baseline data for MA01 to MA03, and MA06 to MA08 are provided in Table 9 to Table 14 below.

Table 9: Summary of other regulatory data in the Hough to Walley's Green study area (MA01)

Data	Description
Local authority recorded pollution incidents	CEC provided a list of pollution incidents from their own records. Precise locations are not given. Where locations of incidents in the study area could be ascertained, these comprised incidents of illegal dumping, leaking of sewage and the unconfirmed potential for petroleum storage at previously identified garages (MA01-10, MA01-204).

Table 10: Summary of other regulatory data in the Wimboldsley to Lostock Gralam study area (MA02)

Data	Description
Pollution incidents to controlled waters	There were an additional two minor pollution incidents to controlled waters reported within the study area.
	A minor pollution incident occurred to the Dane catchment. It involved the release of agricultural slurry/animal waste pollutants.
	A minor pollution incident occurred to the Dane catchment. It involved the release of sewage pollutants.
Environmental permits	There are six additional pollution prevention controls within the study area all of which are located at Green Trees in Byley relating to intensive poultry farming.

Table 11: Summary of other regulatory data in the Pickmere to Agden and Hulseheath study area (MA03)

Data	Description
Discharge consents	Environment Agency data indicates that there are 31 additional consents to surface water within the land quality study area. These relate to sewage and trade discharges. Additionally, Environment Agency data indicate that there are two consents to surface water that are no longer recorded within the study area. These relate to sewage discharge.
Substantiated pollution incident	Environment Agency data indicates one additional substantiated pollution incident, recorded as a significant incident to water located adjacent to the land required for the construction of the AP2 revised scheme along the M6.
Pollution incidents to controlled waters	There was one additional minor and one additional significant pollution incident to controlled waters reported within the study area. A minor pollution incident occurred to Wincham Brook, a freshwater stream, caused by a road traffic accident. It involved the release of oil. A significant pollution incident to controlled water to the River Bollin caused by inadequate and poor maintenance. It involved the release of sewage tank effluent.

 $^{^{7}}$ Regulatory data as listed in the SMR 6 has been reviewed for the entire AP2 ES study area with the exception of the area around M6 junction 20 where publicly accessible sources were used.

Land quality
BID LQ-002-00000 SES2 and AP2 ES
MA01, MA02, MA03, MA06, MA07 and MA08
Land quality baseline data

Table 12: Summary of other regulatory data in the Hulseheath to Manchester Airport study area (MA06)

Data	Description
Discharge consents	Environment Agency data indicates that there are 17 additional discharge consents to surface water within the study area. The majority of these relate to trade, sewage and contaminated water discharge to the River Bollin and its tributaries, Timperley Brook, Birkin Brook, Shooters Brook, Dukes tunnel and the River Medlock.
Pollution incidents to controlled waters	Environment Agency data indicates that there are nine additional pollution incidents to controlled waters all categorised as minor incidents comprising miscellaneous, sewage and oil pollutants to the River Bollin and Sinderland Brook.
Environmental permits	There are an additional two Local Authority Air Pollution Controls in the study area; one located at Lindow Service Station and the other at Hale Barns Service Station. There are also an additional two Local Authority Pollution Prevention and Controls within the study area, at Johnsons Cleaners and E. Delaney Demolition Ltd.

Table 13: Summary of other regulatory data in the Davenport Green to Ardwick study area (MA07)

Data	Description
Discharge consents	Environment Agency data indicates four additional discharge consents to surface waters within the study area. The discharge consents relate to trade discharge to the River Mersey (north-east of Northenden), sewage discharge from storm overflows to the Cornbrook (north of West Gorton) and sewerage discharge to the River Mersey (west of Didsbury).
Registered Radioactive Substances	Environment Agency data indicates two additional sites for the keeping and use of open radioactive sources and/or accumulation and/or disposal of radioactive waste within the study area. The sites are located in Withington at the Christie NHS Foundation Trust (Cancer Treatment Centre) and the University of Manchester Wolfson Molecular Imaging Centre (Medical Imaging Centre).
Pollution incidents to controlled waters	Environment Agency data indicates two additional pollution incidents to controlled waters within the study area. Both incidents are categorised as minor (Category 3), comprising miscellaneous pollutants to the River Mersey Catchment (associated surface water and groundwater) to the west of Didsbury.

Table 14: Summary of other regulatory data in the Manchester Piccadilly Station study area (MA08)

Data	Description
Discharge consents	Environment Agency data indicates three additional discharge consents to surface waters within the study area. The discharge consents relate to sewage discharge to Shooters Brook (tributary of River Medlock), Dukes Tunnel and the River Medlock.
Registered Radioactive Substances	Environment Agency data indicates two additional sites for the keeping and use of open radioactive sources and/or accumulation and/or disposal of radioactive waste within the study area. The sites are located in the University of Manchester (north campus).

Land quality
BID LQ-002-00000 SES2 and AP2 ES
MA01, MA02, MA03, MA06, MA07 and MA08
Land quality baseline data

6 Site visit records

6.1.1 No site visits were carried out for the SES2 scheme.

Land quality
BID LQ-002-00000 SES2 and AP2 ES
MA01, MA02, MA03, MA06, MA07 and MA08
Land quality baseline data

Part 2: Additional Provision 2 Environmental Statement

7 Receptor information

- 7.1.1 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 study area (see main ES Volume 5, Appendices: LQ-001, and SES1 and AP1 ES Volume 5 Appendix: LQ-001-00000).
- 7.1.2 For each site or group of sites, further information on each site receptor can be found in Table 15 to Table 17.
- 7.1.3 For clarity, 'on-site' in this report means 'within the land required for the construction of the AP2 revised scheme' and 'off-site' refers to land beyond this boundary, but within the study area. The site and group of sites for assessment in this area comprise:
 - on-site:
 - freight terminal and former depots; and
 - former depot and scrap yard.
 - off-site:
 - petrol filling stations.

Table 15: Receptors – freight terminal and former depots grouped for assessment (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
Freight terminal (MA07- 221)	Workers in commercial/ industrial area (existing site users) Residents, and workers in commercial/ industrial area (adjacent* site users)	Secondary Undifferentiated Aquifer – glacial till Secondary B Aquifer – Manchester Marls Formation Principal Aquifer – Chester Formation and Collyhurst Sandstone Formation	Corn Brook (culverted) (WFD status not assessed)	None	Buildings, foundations, services (existing and adjacent*) and rail infrastructure (adjacent*)	None

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 railway depot (MA07- 226)	Workers in commercial/ industrial area (existing site users) Residents, and workers in commercial/ industrial area (adjacent* site users)	Secondary Undifferentiated Aquifer – glacial till Secondary B Aquifer – Manchester Marls Formation Principal Aquifer – Chester Formation and Collyhurst Sandstone Formation	Corn Brook (culverted) (WFD status not assessed)	None	Buildings, foundations, services, and rail infrastructure (existing and adjacent*)	None
Former bus depot (MA07- 229)	Workers in commercial/ industrial area (existing site users) Residents, and workers in commercial/ industrial area (adjacent* site users)	Secondary Undifferentiated Aquifer – glacial till Secondary B Aquifer – Manchester Marls Formation Principal Aquifer – Chester Formation and Collyhurst Sandstone Formation	Corn Brook (culverted) (WFD status not assessed)	None	Buildings, foundations and services (existing and adjacent*) and rail infrastructur e (adjacent*)	None

^{*} adjacent site receptors located outside the land required for the construction of the SES2 scheme (off-site) remain and are therefore included in the construction stage assessment. This applies to human and property receptors only.

Table 16: Receptors - former depot and scrap yard (on-site)*

Site title (site ID)	Sensitive land use (human receptor)	Aquifer designation	Surface watercourse	Geological and ecological designations	buildings and	Geoconservation sites
Former depot (MA07- 165)	Workers in commercial/ industrial area (existing site users)	Secondary Undifferentiated Aquifer – glacial till Principal Aquifer – Chester Formation	None	None	Buildings, foundations, services and rail infrastructure (existing and adjacent**)	None

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
	Workers in commercial area (adjacent** site users)					
Scrap yard (MA07- 178)	Workers in commercial/ industrial area (existing site users) Residents, and workers in commercial area (adjacent** site users)	Secondary Undifferentiated Aquifer – glacial till Secondary A Aquifer – Halesowen Formation	None	None	Buildings, foundations, services, and rail infrastructure (existing and adjacent**)	None

^{*} sources assessed in main BID as off-site now assessed as on-site sources for AP2.

Table 17: Receptors – petrol filling stations (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
Petrol filling station (MA06- 209)	Petrol station users and workers (existing site users) Residents, farm workers, walkers and workers in commercial area (adjacent* site users)	Secondary A Aquifer – glaciofluvial deposits Secondary B Aquifer – Tarporley Siltstone Formation	Pigginshaw Brook (a tributary of the River Bollin) 160m west (WFD status moderate)	None	Buildings, foundations and services (existing and adjacent*)	None
Petrol filling	Petrol station	Secondary A Aquifer –	River Mersey (180m south)	None	Buildings, foundations	None

^{**} adjacent site receptors located outside the land required for the construction of the SES2 scheme (off-site) remain and are therefore included in the construction stage assessment. This applies to human and property receptors only.

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
station (MA07- 244)	users and workers (existing site users) Residents, walkers and workers in commercial area (adjacent* site users)	glaciofluvial deposits Principal Aquifer – Wilmslow Sandstone Formation	(WFD status not assessed)		and services (existing and adjacent*)	

^{*} adjacent site receptors located outside the land required for the construction of the SES2 scheme (off-site) remain and are therefore included in the construction stage assessment. This applies to human and property receptors only.

Land quality
BID LQ-002-00000 SES2 and AP2 ES
MA01, MA02, MA03, MA06, MA07 and MA08
Land quality baseline data

8 Minerals data

- 8.1.1 This section presents the following data relating to minerals, when considered as a resource. This includes the following information, where present in the study area:
 - over-arching Mineral plans for all minerals;
 - sand and gravel deposits;
 - coal mining (opencast, shallow and deep);
 - salt and brine deposits and associated cavities;
 - historical marl pits, and clay reserves for brickmaking;
 - presence of reserves of building stone; and
 - presence of potential hydrocarbon resources, including Petroleum Exploration Development Licence, shale gas, coal bed methane and oil deposits.
- 8.1.2 In the Wimboldsley to Lostock Gralam (MA02) area the following additional minerals are recorded:
 - three additional Mineral Safeguarding Areas for sands and gravels within the AP2 study area. Two are noted to surround the crossroads of A559 Manchester Road, A559 Hall Road and Station Road (AP2-002-003); and one is located adjacent to B5309 Kings Street and across Yatehouse Farm (AP2-002-002); and
 - the land required for the construction of the AP2 revised scheme (AP2-002-002) adjacent to B5309 Kings Street and King Street Farm is partially located in Holford Brinefield C, which is a preferred area for controlled brine extraction.
- 8.1.3 In the Davenport Green to Ardwick (MA07) area the following additional minerals are recorded:
 - one additional Mineral Safeguarding Area for sands and gravels within the AP2 study area (AP2-007-003) located to the west of Didsbury (AP2 Palatine Road).

Land quality
BID LQ-002-00000 SES2 and AP2 ES
MA01, MA02, MA03, MA06, MA07 and MA08
Land quality baseline data

9 Geological Sites of Special Scientific Interest and Local Geological Sites

9.1.1 No additional geological SSSI or LGS from those reported in the BID reports that accompanied the main ES and SES1 and AP1 ES are present in any of the study areas.

Land quality
BID LQ-002-00000 SES2 and AP2 ES
MA01, MA02, MA03, MA06, MA07 and MA08
Land quality baseline data

10 Other sources of data and information

10.1.1 Regulatory data presented in Part 1 includes information on pollution incidents, consents, environmental permits, and ecological receptors and will also be relevant to the AP2 revised scheme.

Land quality
BID LQ-002-00000 SES2 and AP2 ES
MA01, MA02, MA03, MA06, MA07 and MA08
Land quality baseline data

11 Site visit records

11.1.1 No site visits were carried out for the AP2 revised scheme.

Land quality
BID LQ-002-00000 SES2 and AP2 ES
MA01, MA02, MA03, MA06, MA07 and MA08
Land quality baseline data

12 References

High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Background Information and Data*. Available online at: https://www.gov.uk/government/collections/hs2-phase2b-crewe-manchester-environmental-statement.

High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Environmental Statement*. Available online at: https://www.gov.uk/government/collections/hs2-phase2b-crewe-manchester-environmental-statement.

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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-phase2b-crewe-manchester-environmental-statement.

High Speed Two Ltd (2023), High Speed Rail (Crewe – Manchester), *Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement.* Available online at: https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-supplementary-environmental-statement-2-and-additional-provision-2-environmental-statement.

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