

High Speed Rail (Crewe – Manchester)

Background information and data

Land quality

BID LQ-002-0MA08

MA08: Manchester Piccadilly Station

Land quality baseline data

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Department
for Transport

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 have been collected for the Proposed Scheme in relation to the Manchester Piccadilly Station area. The baseline data in this report has been used to inform the land quality assessment which is set out in the Environmental Statement (see Volume 5, Land quality report, Appendix: LQ-001-0MA08)¹.
- 1.1.3 Sites (for example MA08-89) referred to throughout this report are contained in the Volume 5 Map Book (see Environment Statement, Volume 5 Land quality Map Book, Maps LQ-01-327b²).
- 1.1.4 The Environmental Impact Assessment Scope and Methodology Report (SMR) (see Environment Statement, Volume 5, Appendix CT-001-00001)³ 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, Land quality report*, Volume 5, Appendix LQ-001-0MA08. 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, Volume 5 Land quality Map Book*. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-environmental-statement>.

³ 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>.

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 Manchester Picadilly Station area (see Environmental Statement, Volume 5, Appendix LQ-001-0MA08)¹.
- 2.1.2 For each site or group of sites, further information on each site receptor can be found in Table 1 to Table 24.
- 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:
 - historical cemetery;
 - former depots;
 - former and current works;
 - former printing works;
 - former garage workshop;
 - former petrol filling station;
 - former iron and metal works;
 - former and current tramway and railway land;
 - former dye works, cotton mills and cotton works;
 - former warehouses; and
 - former timber yard.
 - off-site:
 - former and current engineering works and works;
 - former chemical works;
 - former tanks;
 - former metal foundries;
 - former dye works and mills;
 - former timber yards;
 - former gasometer;
 - historical landfill;
 - former and current warehouses;
 - former scrap yard;
 - former railway land;
 - former depot; and
 - former garage workshop.

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Table 1: Receptors – historical cemetery (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
Historical cemetery (MA08-160)	Commercial (existing site user) Commercial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Chester Formation	River Medlock (Water Framework Directive (WFD) Moderate), 160m south-east	None	Commercial buildings (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 2: Receptors – 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
Former depot (MA08-89)	Commercial (existing site user) Commercial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Ashton Canal (WFD Moderate) Rochdale Canal (WFD Moderate), 70m north	Site of Biological Importance (SBI) - Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's Lane-Ducie Street Basin, 70m north	Commercial buildings (existing and adjacent*)	None
Former depot (MA08-69)	Commercial (existing site user) Commercial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 60m east	None	Commercial buildings (existing and adjacent*)	None
Former depot (MA08-76)	Commercial (existing site user) Commercial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	None	None	Commercial buildings (existing and adjacent*)	None

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Table 3: Receptors – former and current works 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
Former works (MA08-21)	Industrial (existing site user) Industrial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 120m north-west	None	Industrial buildings (existing and adjacent*)	None
Former works (MA08-90)	Industrial (existing site user) Commercial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	None	None	Industrial buildings Commercial buildings (adjacent*)	None
Former works (MA08-33)	Commercial (existing site user) Commercial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 160m north-west	None	Commercial buildings (existing and adjacent*)	None
Former works (MA08-42)	Commercial and Industrial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 90m west	None	Commercial buildings (adjacent*)	None
Former works (MA08-49)	Industrial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 30m west	None	Industrial buildings (adjacent*)	None
Former pulply works (MA08-45)	Commercial and Industrial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 150m west	None	Commercial and industrial buildings (adjacent*)	None
Former works (MA08-38)	Commercial and Industrial	Secondary Undifferentiated Aquifer - glacial till	None	None	Commercial and industrial buildings (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 user*)	Principal Aquifer – Collyhurst Sandstone Formation				
Former works (MA08-44)	Industrial (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 230m west	None	Industrial buildings	None
Former works (MA08-30)	Industrial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 70m north-west	None	Industrial buildings (adjacent*)	None
Former works (MA08-29)	Commercial and Industrial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 150m west	None	Commercial and industrial buildings (adjacent*)	None
Current works (MA08-56)	Industrial (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 80m west	None	Industrial buildings	None
Former engineering workshop (MA08-116)	Commercial and residential (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Ashton Canal (WFD Moderate) (West) and Rochdale Canal (WFD Moderate), 42m north	SBI - Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's Lane-Ducie Street Basin 42m north	Commercial and residential buildings (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 4: Receptors – former printing works (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 printing works (MA08-81)	Commercial /industrial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 50m West	None	Commercial/ industrial (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 5: Receptors – former garage workshop (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 garage (MA08-59)	Commercial (existing and adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 60m east	None	Commercial (existing and 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 6: Receptors – former petrol filling station (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 petrol filling station and tanks (MA08-54)	Commercial (existing site and adjacent user*)	Secondary Undifferentiated Aquifer - alluvium Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 20m east	None	Commercial (existing and 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 7: Receptors – former iron and metal works 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
Former Ardwick Iron Works (MA08-62)	Commercial and industrial (existing site user and adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 20m north	None	Industrial buildings and car park (existing and adjacent*)	None
Former Smithy (MA08-105)	Commercial and industrial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Ashton Canal (WFD Moderate) (West) and Rochdale Canal (WFD Moderate), 155m northwest	SBI - Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's Lane-Ducie Street Basin 155m northwest	Industrial buildings (adjacent*)	None
Former iron foundry (MA08-109)	Commercial and industrial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Ashton Canal (WFD Moderate) (West) and Rochdale Canal (WFD Moderate), 42m north	SBI - Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's Lane-Ducie Street Basin 42m north	Industrial buildings (adjacent*)	None
Former smithy (MA08-48)	Commercial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 100m north	None	Commercial buildings (adjacent*)	None
Former Soho Iron works (MA08-158)	Commercial and residential (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Secondary A Aquifer – Halesowen Formation	Ashton Canal (WFD Moderate) (West) and Rochdale Canal (WFD Moderate) adjacent north	SBI - Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's Lane-Ducie Street Basin adjacent north	Commercial and residential buildings (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 8: Receptors – former and current tramway and railway land 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
Current London Railroad Station and lines (MA08-27)	Commercial, residential and industrial (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Ashton Canal (WFD Moderate) (West) and Rochdale Canal (WFD Moderate) and River Medlock (WFD Moderate), various distances	SBI - Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's Lane-Ducie Street Basin adjacent north-east	Commercial buildings, factories and residential	None
Former Ancoats Goods Station and railway line (MA08-75)	Commercial and industrial (existing site user and adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), adjacent north	None	Commercial buildings, factories (existing and adjacent*)	None
Former tramway (MA08-118)	Commercial, residential and industrial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), various distances	None	Commercial buildings, factories and residential (adjacent*)	None
Former tramway (MA08-85)	Commercial, residential and industrial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate) and Rochdale Canal (WFD Moderate), adjacent various directions	SBI – Rochdale Canal and Rochdale Canal, Stott's Lane-Ducie Street Basin, 80m north-west	Commercial, residential and industrial buildings (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 9: Receptors – former dye works, cotton mills and cotton works 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
Former Bridge Street Mill (MA08-66)	Commercial (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 2m north	None	Enterprise park buildings	None
Former Pin Mill (MA08-57)	Commercial (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 30m north	None	Commercial buildings	None
Former Marlborough Mills (MA08-31)	Commercial (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 100m north-west	None	Commercial buildings	None
Former Neptune Works (MA08-41)	Commercial and industrial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 130m west	None	Commercial and industrial buildings (adjacent*)	None
Former Ardwick Mill (MA08-46)	Commercial and industrial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 10m west	None	Commercial and industrial buildings (adjacent*)	None
Former Cotton Mill (MA08-155)	Commercial and residential (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till	Ashton Canal (WFD Moderate) (West) and Rochdale Canal (WFD Moderate) 5m north	SBI - Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's Lane-Ducie Street Basin 5m north	Commercial and residential buildings (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
Former dye works (MA08-80)	Commercial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 5m south	None	Commercial buildings (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 10: Receptors – former warehouses 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
Former warehouse (MA08-97)	Commercial (existing site user) residential (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Ashton Canal (WFD Moderate) (West) and Rochdale Canal (WFD Moderate), 85m north-east	SBI - Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's Lane-Ducie Street Basin 85m north-east	Commercial buildings (existing) residential buildings (adjacent*)	None
Former warehouse (MA08-65)	Commercial (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 40m south	None	True Jesus Church	None
Former warehouse (MA08-84)	Commercial (existing site user, adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Chester Formation	None	None	Network rail building (adjacent*)	None
Former warehouse (MA08-96)	Commercial (existing site user, adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Ashton Canal (WFD Moderate) (West) and Rochdale Canal (WFD Moderate), 60m north	SBI- Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's Lane-Ducie Street Basin 60m north	Commercial and Industrial (existing)	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 11: Receptors – former timber 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
Former timber yard (MA08-74)	Commercial /industrial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 5m south-west	None	Commercial/ industrial buildings (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 12: Receptors – former and current engineering works and works 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
Former engineering works (MA08-60)	Commercial (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	None	None	Commercial buildings	None
Former Phoenix Works (MA08-103)	Industrial (existing site user) Residential (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Ashton Canal (WFD Moderate) (West) and Rochdale Canal (WFD Moderate), 20m north	SBI - Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's Lane-Ducie Street Basin 20m north	Industrial buildings	Phoenix Works (MA08-103)
Former packing case manufacturing (MA08-110)	Residential and commercial (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Ashton Canal (WFD Moderate) (West) and Rochdale Canal (WFD Moderate), adjacent north	SBI- Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's Lane-Ducie Street Basin adjacent	Residential properties	None
Current works (MA08-98)	Commercial and industrial (existing site)	Secondary Undifferentiated Aquifer - glacial till	Ashton Canal (WFD Moderate) (West) and	SBI - Ashton Canal (WFD Moderate) (West) and	Aero works buildings	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
	user and adjacent site user*)	Principal Aquifer – Collyhurst Sandstone Formation	Rochdale Canal (WFD Moderate), 90m north	Rochdale Canal, Stott's Lane-Ducie Street Basin 90m north	Commercial buildings (adjacent*)	
Former coach manufactory (MA08-58)	Commercial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 20m north	None	Commercial buildings (adjacent*)	None
Former works (MA08-08)	Industrial (existing site user)	Secondary Undifferentiated Aquifer - glacial till	River Medlock (WFD Moderate), 370m north	None	Industrial buildings	None
Former works (MA08-09)	Industrial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till	River Medlock (WFD Moderate), 470m north	None	Industrial buildings (adjacent*)	None
Former sugar works (MA08-11)	Commercial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till	River Medlock (WFD Moderate), 355m north-west	None	Commercial buildings (adjacent*)	None
Former engineering workshops (MA08-124)	Residential (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Ashton Canal (WFD Moderate) (West) and Rochdale Canal (WFD Moderate), 10m north	SBI - Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's Lane-Ducie Street Basin 10m north	Residential flats	None
Former saddlery works (MA08-127)	Commercial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Ashton Canal (WFD Moderate) (West) and Rochdale Canal (WFD Moderate), adjacent south	SBI - Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's Lane-Ducie Street Basin adjacent south	Commercial buildings (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
Former engineering workshops (MA08-68)	Commercial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till	River Medlock (WFD Moderate), adjacent	None	Commercial buildings (adjacent*)	None

* adjacent site receptors located within the land required for the construction of the Proposed Scheme (on-site) are assumed to have been removed at the construction stage and are therefore not considered in the construction stage assessment. This applies to human and property receptors only.

Table 13: Receptors – former chemical works 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
Former Ardwick Bridge Chemical Works (MA08-15)	Commercial and industrial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), Below site in culvert	None	Commercial and industrial buildings (adjacent*)	None
Former Soho Chemical works (MA08-154)	Commercial (existing site user)	Secondary Undifferentiated Aquifer - glacial till	Ashton Canal (WFD Moderate) 80m north-west	SBI - Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's Lane-Ducie Street Basin 80m north-west	Commercial buildings	None
Former chemical works (MA08-01)	Industrial (existing site user)	Secondary Undifferentiated Aquifer - glacial till	None	None	Industrial buildings	None
Former rubber and plastics works (MA08-13)	Residential (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 70m north	None	Residential buildings (adjacent*)	None
Former paint and varnish works (MA08-03)	Industrial and commercial (existing site user)	Secondary Undifferentiated Aquifer - glacial till	None	None	Depot buildings Commercial buildings	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
					(existing and adjacent*)	
Former Ancoats Vale Rubber Works (MA08-86)	Residential (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till	River Medlock (WFD Moderate), adjacent	None	Residential buildings (adjacent*)	None

* adjacent site receptors located within the land required for the construction of the Proposed Scheme (on-site) are assumed to have been removed at the construction stage and are therefore not considered in the construction stage assessment. This applies to human and property receptors only.

Table 14: Receptors – former tanks 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
Former tank (MA08-18)	Commercial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 50m north	None	Commercial buildings (adjacent*)	None
Former tank (MA08-06)	Industrial (existing site user)	Secondary Undifferentiated Aquifer - glacial till	River Medlock (WFD Moderate), 414m north	None	Industrial buildings	None
Former tank (MA08-93)	None	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Rochdale Canal (WFD Moderate), 23m north-west	SBI – Rochdale Canal, Stott's Lane-Ducie Street Basin 240m north-east	None	None

* adjacent site receptors located within the land required for the construction of the Proposed Scheme (on-site) are assumed to have been removed at the construction stage and are therefore not considered in the construction stage assessment. This applies to human and property receptors only.

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Table 15: Receptors – former metal foundries 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
Former Sheffield Iron Foundry (MA08-140)	Residential (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Ashton Canal (WFD Moderate) (West) and Rochdale Canal (WFD Moderate), 20m south	SBI - Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's Lane-Ducie Street Basin 20m south	Residential buildings (adjacent)	None
Former iron foundry and clothing works (MA08-142)	Commercial (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Ashton Canal (WFD Moderate) (West) and Rochdale Canal (WFD Moderate), 10m southwest	SBI - Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's Lane-Ducie Street Basin 10m southwest	Commercial buildings	None
Former Pin Mill Iron Forge (MA08-61)	Commercial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 10m north	None	Commercial buildings (adjacent*)	None
Former Iron and Brass Foundry (MA08-82)	Residential (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till	River Medlock (WFD Moderate), 60m east	None	Residential (adjacent*)	None
Former smithy (MA08-83)	Commercial (existing site user)	Principal Aquifer – Collyhurst Sandstone Formation	None	None	Commercial buildings	None
Former Phoenix Brass and Iron Works (MA08-115)	Commercial and residential (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Ashton Canal	SBI - Ashton Canal (WFD Moderate) (West)	Residential and commercial buildings	None
Former Mill'd Lead and Patent	Commercial (existing site user)	Secondary Undifferentiated Aquifer - glacial till	Rochdale Canal (WFD Moderate), adjacent	SBI – Rochdale Canal, Stott's Lane-Ducie	Rodwell Tower	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
Pipe Works (MA08-119)		Principal Aquifer – Collyhurst Sandstone Formation		Street Basin 50m north-east		
Former tin works (MA08-121)	Residential (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Ashton Canal (WFD Moderate) (West) and Rochdale Canal, (WFD Moderate) 5m north	SBI - Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's Lane-Ducie Street Basin 5m north	Residential buildings	None

* adjacent site receptors located within the land required for the construction of the Proposed Scheme (on-site) are assumed to have been removed at the construction stage and are therefore not considered in the construction stage assessment. This applies to human and property receptors only.

Table 16: Receptors – former dye works and mills 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
Former Ardwick Dye Works (MA08-77)	Residential (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 2m west	None	Residential buildings (adjacent*)	None
Former Sandy Nook Mill (MA08-72)	Industrial (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 2m south	None	Industrial buildings	None
Former Mayfield Dye and Print Works (MA08-43)	Commercial (existing site user and adjacent site user*)	Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 2m south	None	Industrial or commercial buildings (existing and adjacent*)	None
Former cotton mill (MA08-126)	Residential (existing site user and adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst	Ashton Canal (WFD Moderate), 50m north-west	SBI - Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's	Residential buildings (existing and 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
		Sandstone Formation		Lane-Ducie Street Basin 50m north		
Former Hanover Mill (MA08-32)	Residential (existing site user)	Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 5m south	None	Residential buildings	None
Former cotton mill (MA08-34)	Commercial and residential (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 112m east	None	Commercial and residential block	None
Former dye works (MA08-17)	Commercial / industrial (existing site user and adjacent site user*)	Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 20m north	None	Industrial factory (existing and adjacent*)	None
Former clothing factory (MA08-123)	Residential and commercial (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Rochdale Canal (WFD Moderate)	SBI – Rochdale Canal, Stott's Lane-Ducie Street Basin 10m north-east.	Hotel and Rodwell Tower	None
Former Shepley St Mill (MA08-92)	Residential and commercial (existing site user and adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Rochdale Canal (WFD Moderate), 80m north	SBI – Rochdale Canal, Stott's Lane-Ducie Street Basin 160m north-east	Hotel and other commercial buildings (existing and adjacent*)	None
Former Piccadilly Mill (MA08-101)	Residential and commercial (existing site user and adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Rochdale Canal (WFD Moderate), 20m north	SBI – Rochdale Canal, Stott's Lane-Ducie Street Basin 150m north-east	Hotel and other commercial buildings (existing and adjacent*)	None
Former cloth finishing	Commercial (existing site user)	Secondary Undifferentiated Aquifer - glacial till	Ashton Canal (WFD Moderate)	SBI - Ashton Canal (WFD Moderate)	Commercial buildings	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
works (MA08-39)		Principal Aquifer – Collyhurst Sandstone Formation	(West) and Rochdale Canal (WFD Moderate), 70m east	(West) and Rochdale Canal, Stott's Lane-Ducie Street Basin 70m east		
Former cotton mill (MA08-122)	Residential (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Ashton Canal (WFD Moderate) (West) and Rochdale Canal(WFD Moderate), 2m north	SBI - Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's Lane-Ducie Street Basin 2m north	Residential buildings	None
Former clothing factory (MA08-67)	Residential and commercial (existing site user and adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Rochdale Canal (WFD Moderate), 250m north-west	None	Residential buildings (existing and adjacent*)	None
Former textile and dye works (MA08-04)	Industrial (existing site user and adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 470m north	None	Industrial buildings	None
Former Minshull Cotton Works (MA08-73)	Residential (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Rochdale Canal (WFD Moderate), 150m north-west	None	Residential buildings	None
Former cotton mill (MA08-95)	Residential (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Rochdale Canal (WFD Moderate), 10m north	SBI – Rochdale Canal, Stott's Lane-Ducie Street Basin 190m north-east	Residential buildings	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
Former Medlock Cotton and Indiarubber works (MA08-19)	Commercial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer - Collyhurst Sandstone Formation	River Medlock (WFD Moderate), adjacent	None	Commercial buildings (adjacent*)	None
Former Hope Mill (MA08-151)	Commercial (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer - Collyhurst Sandstone Formation	Ashton Canal (WFD Moderate) (West) and Rochdale Canal (WFD Moderate) adjacent	SBI - Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's Lane-Ducie Street Basin adjacent	Theatre and other commercial buildings	None

* adjacent site receptors located within the land required for the construction of the Proposed Scheme (on-site) are assumed to have been removed at the construction stage and are therefore not considered in the construction stage assessment. This applies to human and property receptors only.

Table 17: Receptors – former timber yards 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
Former timber yard (MA08-47)	Commercial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer - Collyhurst Sandstone Formation	River Medlock (WFD Moderate), culverted under the site	None	Commercial buildings (adjacent*)	None
Former timber yard (MA08-64)	Commercial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer - Collyhurst Sandstone Formation	None	None	Commercial buildings (adjacent*)	None
Former Ardwick Sawmill and Timber Yard (MA08-40)	Commercial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer - Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 30m east	None	Commercial buildings (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
Former timber yard (MA08-108)	Commercial (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Ashton Canal (WFD Moderate)	SBI - Ashton Canal (WFD Moderate) (West)	Industrial estate buildings	None
Former timber yard (MA08-70)	Commercial (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Rochdale Canal (WFD Moderate), 119m northwest	None	Joule Library	None
Former timber yard (MA08-79)	Commercial (existing site user)	Principal Aquifer – Collyhurst Sandstone Formation	Rochdale Canal (WFD Moderate), 100m northwest	None	Commercial	None

* adjacent site receptors located within the land required for the construction of the Proposed Scheme (on-site) are assumed to have been removed at the construction stage and are therefore not considered in the construction stage assessment. This applies to human and property receptors only.

Table 18: Receptors – former gasometer (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 gasometer (MA08-94)	Commercial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Rochdale Canal (WFD Moderate), 20m northwest	SBI – Rochdale Canal, Stott's Lane-Ducie Street Basin 220m north-east	Commercial buildings (adjacent*)	None

* adjacent site receptors located within the land required for the construction of the Proposed Scheme (on-site) are assumed to have been removed at the construction stage and are therefore not considered in the construction stage assessment. This applies to human and property receptors only.

Table 19: Receptors – Historical landfill (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
Historical Palmerston Street Landfill (MA08-78)	Residential (adjacent site user*)	Secondary Undifferentiated Aquifer -alluvium Principal Aquifer – Collyhurst	River Medlock (WFD Moderate), 1m, east	None	Residential buildings (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
		Sandstone Formation				

* adjacent site receptors located within the land required for the construction of the Proposed Scheme (on-site) are assumed to have been removed at the construction stage and are therefore not considered in the construction stage assessment. This applies to human and property receptors only.

Table 20: Receptors – former and current warehouses 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
Former warehouse (MA08-106)	Commercial and industrial (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 150m north	None	Commercial and industrial buildings	None
Former warehouse (MA08-107)	Commercial and industrial (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 125m north	None	Commercial and industrial buildings	None
Former warehouse (MA08-111)	Commercial and industrial (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Ashton Canal (WFD Moderate) (West) and Rochdale Canal (WFD Moderate), 77m northwest	SBI - Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's Lane-Ducie Street Basin 77m northwest	Commercial and industrial buildings	None
Former general wharf and stores (MA08-125)	Commercial hotel (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	Rochdale Canal (WFD Moderate), 10m north	None	Commercial hotel (existing)	None
Current warehouse (MA08-100)	Commercial (existing site user and adjacent site user*) Residential	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst	Ashton Canal (WFD Moderate) (West) and Rochdale Canal (WFD Moderate),	SBI - Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's Lane-Ducie	Commercial warehouse (existing and 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 user)	Sandstone Formation	100m north-west	Street Basin 100m north-west		
Former iron warehouse (MA08-129)	Commercial (existing site user)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer - Collyhurst Sandstone Formation	Rochdale Canal (WFD Moderate), 5m north	SBI - Rochdale Canal, Stott's Lane-Ducie Street Basin 5m north	Commercial buildings	None

* adjacent site receptors located within the land required for the construction of the Proposed Scheme (on-site) are assumed to have been removed at the construction stage and are therefore not considered in the construction stage assessment. This applies to human and property receptors only.

Table 21: Receptors – former scrap yard (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 scrap yard (MA08-134)	Residential and commercial (existing and adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer - Collyhurst Sandstone Formation	Ashton Canal (WFD Moderate) 20m south	SBI - Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stott's Lane-Ducie Street Basin 20m south	Oxygen Tower	None

* adjacent site receptors located within the land required for the construction of the Proposed Scheme (on-site) are assumed to have been removed at the construction stage and are therefore not considered in the construction stage assessment. This applies to human and property receptors only.

Table 22: Receptors – former railway land (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 Mayfield train station (MA08-52)	Commercial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer - Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 10m south	None	Commercial (adjacent*)	None

* adjacent site receptors located within the land required for the construction of the Proposed Scheme (on-site) are assumed to have been removed at the construction stage and are therefore not considered in the construction stage assessment. This applies to human and property receptors only.

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Table 23: Receptors – former 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
Former depot (MA08-63)	Commercial (adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 249m Southeast	None	None	None

* adjacent site receptors located within the land required for the construction of the Proposed Scheme (on-site) are assumed to have been removed at the construction stage and are therefore not considered in the construction stage assessment. This applies to human and property receptors only.

Table 24: Receptors – former garage workshop (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 garage (MA08-10)	Commercial (existing and adjacent site user*)	Secondary Undifferentiated Aquifer - glacial till Principal Aquifer – Collyhurst Sandstone Formation	River Medlock (WFD Moderate), 370m north	None	Commercial buildings (adjacent*)	None

* adjacent site receptors located within the land required for the construction of the Proposed Scheme (on-site) are assumed to have been removed at the construction stage and are therefore not considered in the construction stage assessment. This applies to human and property receptors only.

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3 Minerals data

- 3.1.1 All relevant information associated with minerals, when considered as a resource, is presented in Environmental Statement, Volume 2, Land Quality, Community Area report: Manchester Piccadilly Station (MA08), Section 10⁴.

⁴ High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Environmental Statement, Volume 2, Community Area report: Manchester Piccadilly Station (MA08), Section 10 Land quality*. 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 Manchester Piccadilly station 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 to include:

- local authority contaminated site data;
- relevant planning applications;
- landfill site data; and
- regulatory data summary.

5.2 Local authorities contaminated site data

5.2.1 Manchester City Council (MCC) did not provide any data on potentially contaminated sites within the study area.

5.2.2 Data on petrol filling stations (PFS) was obtained and reviewed via Envirocheck reports. The data was used in the assessment of site MA08-54, which is on land required for the construction of the Proposed Scheme.

5.3 Planning applications

5.3.1 Relevant and available historical ground investigation reports submitted as part of the planning application process are outlined in Table 25.

Table 25: Summary of ground investigation reports from local authority planning applications

Planning reference and location	Relevant site ID	Description	Comment
061693, Albion Mill Site, Pollard Street, Manchester	MA08-126	Site identified as land utilised for Mills and Vulcan Iron Works. By 1951 the site had been developed as a warehouse. Desk based study identified potential sources of contamination at the site and recommended that as there is likely to be elevated levels of contamination and/or ground gasses and an intrusive investigation is to take place. The report does not include any information regarding remediation works.	Included in the detailed assessment.

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5.4 Landfill site data

5.4.1 Table 26 presents information provided by the Environment Agency regarding landfill sites within the study area.

Table 26: Summary of landfill sites

Landfill Permit Number	Relevant Site ID	Description	Comment
Environment Agency historical landfill ref: EAHLD16530	MA08-78 - Palmerston Street Landfill (historical landfill)	Environment Agency records indicate that the landfill (EAHLD16530) accepted both inert and industrial wastes between 1 September 1986 and 31 December 1987. The issue and surrender dates for the licence are noted as 20 August 1986 and 21 July 1988, respectively. No engineering details are known.	Included in the detailed assessment.

5.5 Other regulatory data

5.5.1 Regulatory data reviewed includes pollution incidents (major, significant and minor categories), radioactive and hazardous substances consents, environmental permits (integrated pollution control and integrated pollution prevention and control licences) and ecological receptors. Details are provided in Table 27 below.

Table 27: Summary of other regulatory data

Data	Description
Pollution incidents to controlled waters	There have been 24 pollution incidents to controlled waters in the study area between 1991 and 1999; four of which are registered to locations within the land required for the Proposed Scheme. The majority are classified as minor incidents. There has been one significant incident to the River Medlock (WFD Moderate) (pollutant is listed as 'colour') and one major incident to a tributary of the River Mersey (sewage). The major incident is registered to a location within land required for the Proposed Scheme but occurred nearly 30 years ago.
Discharge consents	Environment Agency data indicate that there are 16 active discharge consents to surface water within the study area. They are all held by United Utilities for sewage discharge. Two consents are registered to locations within the land required for the Proposed Scheme.
Groundwater and Surface Water abstractions	There are three groundwater licences registered to two locations in the study area including a SPZ3 in the south west of the study area. The water is used for 'industrial, commercial and public services. There are no surface water abstractions in the study area.

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Data	Description
Ecological receptors	The Ashton Canal (WFD Moderate) (West) and Rochdale Canal, Stotts Lane – Ducie Street Basin are listed as SBI

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6 Site visit records

6.1.1 Records of site visits are included in the following Section. Site specific visits were completed at:

- MA08-78 Former Palmerston Street Landfill;
- MA08-61 Former Pin Mill Iron Forge;
- MA08-55 Former Works; and
- MA08-75 Former Ancoats Goods Station.

Table 28: Geo-environmental site inspection pro forma for MA08-78, MA08-61, MA08-55 and MA08-75

Project	Site walkover		
Land Access Number(s):	L4928, L4744, L4383 and L4299		
Site name:	Former Palmerston Street Landfill, Former Pin Mill Iron Forge, Former Works and Former Ancoats Goods Station		
Surveyor name:	AM/CO	NGR (centre of land parcel):	385742 397806
Weather:	Dry and overcast	Date:	10 September 2018
Overview site description			
<p>All four of the sites are in the same general area, overlapping in places and were visited on the same day. For clarity, all four site inspections records are reported here together.</p> <p>The sites are largely overgrown shrubland amongst an urban environment. Evidence of rough sleeping, with 2-3 people emerging from bushes once aware of surveyor's presence. Evidence of fly-tipping observed comprising household waste, possible building materials and suspected asbestos sheeting.</p> <p>Old public house building present, with other vacant lots and hardstanding observed.</p> <p>Due to the presence of used hypodermic needles and potentially aggressive people on-site, only a perimeter walk was undertaken on safety grounds.</p>			
Topography			
Steep landscaped area in the north-west of the site which slopes down to the south and east. Made ground visible in built up area forming a landscaped embankment.			
Soil quality			
Soil material visible at the surface is of poor quality with evidence of fly-tipping observed. Hardstanding is in areas associated with the old public house building and other vacant lots, which consisted of asphalt, concrete and a former car park area.			
Mining evidence			
No evidence of mining activity on-site.			
Water quality			
The River Medlock (WFD Moderate) was noted running through the middle of the site and was observed to be slightly murky with some litter throughout. In observed locations the river is channelised with concrete banks and concrete base. No vegetation was observed apart from in areas of sediment in the watercourse, including stands of Himalayan balsam.			
Site drainage			
Not able to assess on safety grounds.			

Background Information and Data

Land quality

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Project	Site walkover
Vegetation cover	
Vegetation is a mix of improved grassland and semi-mature trees and an understory of brambles and nettles. Some areas of hardstanding had Buddleia emerging through cracks in the concrete along with other self-seeded sapling trees.	
Ecological issues (outline)	
Himalayan balsam identified on the banks of the river in isolated patches in all land parcels. Japanese knotweed observed within the centre of the site growing out of a hard-standing area that was inaccessible. A full invasive species survey was outside the scope of the site walkover.	
Buildings and large infrastructure (if applicable)	
Abandoned old public house in the north-east was in poor condition with roof falling in and boarded up windows and doors. No visual evidence of contamination observed in association with this structure. Possibility of asbestos within the building.	
Ancillary infrastructure (if applicable)	
None	
Site operation (past and present)	
Past: The site is identified as a former iron forge and a goods station. Present: Site is now open space for recreational use but is in poor condition and covered in tipped material. Some old plots still have hardstanding areas and old walls still standing but not possible to access due to safety concerns.	
Visual or anecdotal evidence of contamination	
Some fly-tipping with possible asbestos seen to the northern boundary of the land parcels. No visual or olfactory evidence of contamination on the water.	
Surrounding land use	
North	Residential
East	Commercial
West	Residential
South	Commercial
General	Some sensitive receptors close to sites including houses and commercial properties. Walkers and homeless people are also present.
Miscellaneous comments/notes	
None	

Background Information and Data

Land quality

BID LQ-002-0MA08

MA08: Manchester Picadilly Station

Land quality baseline data

7 References

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