

High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 5: Map Book

Water resources and flood risk (WR-01, WR-03, WR-05, WR-06)

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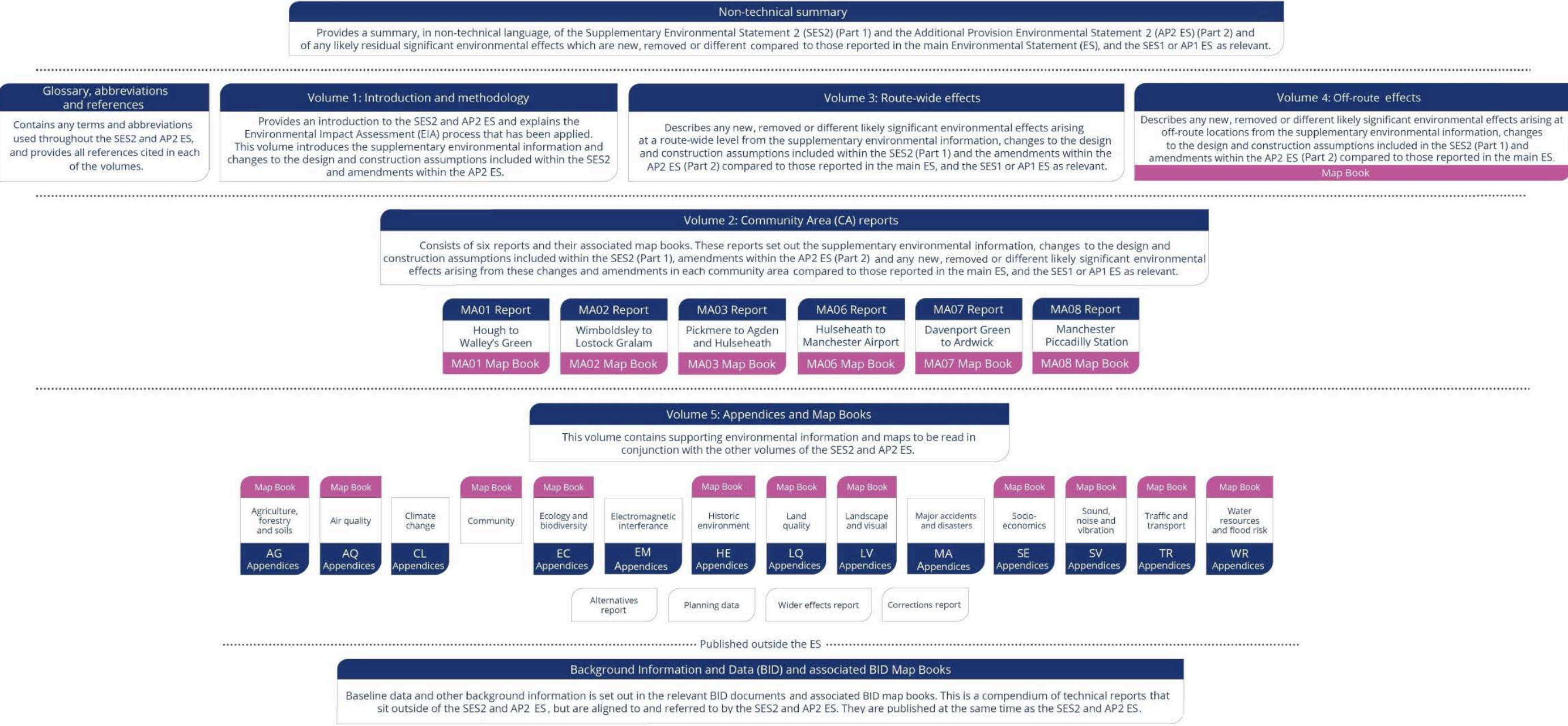
Data dictionary and definitions

Map series name	WR-01 - Surface Water Baseline	WR-03 - Water Framework Directive	WR-05 - Modelled Baseline and Post Development Flood Extent 1 in 100 (1%CC) including Climate Change Annual Probability of River Flooding	WR-06 - Modelled Baseline and Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding
Map series description	This map series shows surface water features such as rivers, streams, ponds, canals and reservoirs, flood zones, and surface water abstractions. The design of the Proposed Scheme will be informed through stakeholder engagement and further engineering and environmental studies.	This map series shows water bodies, their Water Framework Directive current status and associated ecological features.	The map shows the output from hydraulic modelling of specific crossing locations and the effect the Proposed Scheme has on flood extent at 1 in 100 years return period inclusive of climate change.	The map shows the output from hydraulic modelling of specific crossing locations and the effect the Proposed Scheme has on flood extent at 1 in 20 year return period.
Community Area name				
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	✓	✓	✓	✓
ORW1 Preston Station (PSTN)				
ORW2 Carlisle Station (CSTN)				
ORW3 Annandale Depot (ADEP)	✓	✓		

Mapping explanatory notes

Structure of the Supplementary Environmental Statement 2 and the Additional Provision 2 Environmental Statement

This map book is part of the suite of documents that make up the Supplementary Environmental Statement 2 (SES2) and the Additional Provision 2 Environmental Statement (AP2 ES) for the High Speed Rail (Crewe – Manchester) scheme. The SES2 and the AP2 ES are separate documents; however, they are bound together and presented in a number of volumes shown in the figure below.



Copyright statements

Copyright statements are presented in the data dictionary and definitions section at the front of the map book, due to limited space to include this on the individual maps themselves.

Ordnance Survey data

All maps produced as part of the SES2 and AP2 ES contain Ordnance Survey (OS) data. HS2 Ltd use the most up to date mapping available, where possible, supplied by the OS and as such, we cannot be held responsible for any inaccuracies within this data. As part of our licence conditions, all digital maps carry a watermark.

Chainage

Most of the maps presented as part of the SES2 and AP2 ES have a chainage value shown next to the alignment. Chainage is presented on the maps in black font, in the form of XXX+YYY, e.g. 192+000 or 239+500.

Chainage (known as reference chainage) is referenced from Euston Station, which is 0+000, and the value presented is in metres, e.g. 192+000 refers to the point, 192,000m, or 192km, from Euston Station. Chainage values increase in intervals dependent on the map scale. For maps at 1:50,000 scale chainage is shown at 5km intervals. For maps at 1:25,000 scale chainage is shown at 2km intervals. For maps at 1:20,000, 1:10,000, 1:5,000 and 1:2,500 scales, chainage is shown at 1km intervals.

Chainage has been included on the maps as a useful tool for comparing different map sets showing the different environmental themes or engineering plans, due to map sets having different scales, and therefore, showing differing amounts of alignment on the map.

Map sheet layout

Each map in Volume 2 is presented twice, with the main ES map (In Parliament - Session 2021 - 2022) on the left-hand page and the SES2 and the AP2 ES map on the right. For the CT-05 and CT-06 map series, the SES2 and the AP2 ES is shown with different coloured hatching, annotated with labels, which highlights the areas of change. The coloured text box provides a brief description of the design change and amendment, and gives the SES2 and the AP2 ES reference number. In some instances where the effect covers a large area, a box without hatching but with a label, is shown. Only maps which have been amended as a result of the SES2 and the AP2 ES are included within the map books. Other design changes which are within the existing limits of the Bill and do not result in new or different likely significant effects are also shown on the maps, but are not indicated by hatching.

Each Volume 5 map is annotated to describe the change to a receptor or significant effect, and to give the SES2 and the AP2 ES reference number. For more detailed information about the SES2 and the AP2 ES annotation, refer to the map series legend. Only maps which have been amended as a result of the SES2 and the AP2 ES are included within the map book. Changes to receptors or significant effects relating to SES1 or AP1 ES are also provided for reference. Where this is the case they are shown in a faded box.

Where a significant effect has been changed due to a correction to mapping produced in the main ES or previous SES/AP, the significant effect reference is suffixed with a double asterisk (**). The map now shows the correct effect.

Map orientation

The majority of the maps presented in these map books are presented with the railway alignment running horizontally across the page. The direction of travel to London would be following the alignment to the left hand side of the page, and Manchester to the right.

The exception to this, are map series LV-00, LV-02, LV-07 and LV-08, which present the alignment running from bottom to top of the page. This is to allow more of the modelled outputs to be shown at the appropriate map scale. In this instance, the direction of travel to London would be to the bottom of the page, and Manchester to the top.

Further details on the approach to mapping is set out in Section 6 of Volume 1 of the SES2 and AP2 ES.

Map books

In total, there are 19 map books included in the SES2 and AP2 ES Volume 2, Volume 4 and Volume 5. A list of the map book titles and map series is provided below for reference.

Map book title (map series)	Map book title (map series)
Volume 2: Map Book – MA01: Hough to Walley’s Green (CT-05, CT-06, CT-10, LV-03, SV-05)	Volume 5: Map Book – Planning Data / Committed Developments (CT-13)
Volume 2: Map Book – MA02: Wimboldsley to Lostock Gralam (CT-05, CT-06, CT-10, LV-03, SV-05)	Volume 5: Map Book – Ecology and biodiversity (EC-01)
Volume 2: Map Book – MA03: Pickmere to Agden and Hulseheath (CT-05, CT-06, CT-10, LV-03, LV-04, SV-05)	Volume 5: Map Book – Historic environment (HE-01, HE-02)
Volume 2: Map Book – MA06: Hulseheath to Manchester Airport (CT-05, CT-06, CT-10, LV-01, LV-03, LV-04, SV-05)	Volume 5: Map Book – Land quality (LQ-01)
Volume 2: Map Book – MA07: Davenport Green to Ardwick (CT-05, CT-06, CT-10, LV-01, LV-03, LV-04)	Volume 5: Map Book – Landscape and visual (LV-00, LV-02, LV-07, LV-08, LV-17)
Volume 2: Map Book – MA08: Manchester Piccadilly Station (CT-05, CT-06, CT-10, LV-03, LV-04, SV-05)	Volume 5: Map Book – Socio-economics (SE-01)
Volume 4: Off-route effects map book	Volume 5: Map Book – Sound, noise and vibration (SV-02, SV-03, SV-08, SV-09)
Volume 5: Map Book – Agriculture, forestry and soils (AG-01, AG-04)	Volume 5: Map Book – Traffic and transport (TR-01, TR-03, TR-04, TR-08)
Volume 5: Map Book – Air quality (AQ-01)	Volume 5: Map Book – Water resources and flood risk (WR-01, WR-03, WR-05, WR-06)
Volume 5: Map Book – Community (CM-01)	

High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Data dictionary and definitions

Data dictionary and definitions

Legend features	Definition	Source	Copyright
Airport	Airport location derived from Ordnance Survey Vector map data.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2021.
Canal	An artificial waterway constructed to allow the passage of boats or ships inland or to convey water for irrigation.	Environment Agency	© Environment Agency copyright and/or database right 2019. All rights reserved.
Canal tunnel	A canal tunnel is a tunnel for a canal.	Environment Agency	© Environment Agency copyright and/or database right 2019. All rights reserved.
Community area boundary	The Environmental Statement has been split into sections called Community Areas.	High Speed Two (HS2) Ltd	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2019.
Consented discharge to surface water	A discharge to surface water e.g. a river or lake under permit regulations (the Environmental Permitting, England and Wales Regulations, 2010 (EPR)). A permit is required for the discharge of treated effluent to surface water under the Environmental Permitting (England and Wales) Regulations, 2010 (EPR).	Environment Agency	© Environment Agency copyright and/or database right 2022. All rights reserved.
County boundary	County boundaries from Ordnance Survey boundary mapping.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2021.
Culverted watercourse	Watercourses that have been enclosed underground (culverted), these are still considered to form part of an ordinary watercourse or main river.	Environment Agency	© Environment Agency copyright and/or database right 2019. All rights reserved
Depot, station, headhouse or portal building	Extends to cover operational footprint of each depot and station and the footprint of each tunnel vent shaft and headhouse at surface level. Excludes any ancillary buildings associated with these structures.	High Speed Two (HS2) Ltd	
District/Borough boundary	Ordnance Survey local authority boundary mapping.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2021.

Legend features	Definition	Source	Copyright
Fluvial flood risk: Flood Zone 2	National Flood Zone 2 (FZ2). Land assessed, ignoring the presence of flood defences, as having between a 1% and 0.1% annual probability of river flooding.	Environment Agency	© Environment Agency copyright and/or database right 2019. All rights reserved.
Fluvial flood risk: Flood Zone 3	National Flood Zone 3 (FZ3). Land assessed, ignoring the presence of flood defences, as having a 1% or greater annual probability of river flooding.	Environment Agency	© Environment Agency copyright and/or database right 2019. All rights reserved.
Historic flooding area	Historic Flood Map is the maximum extent of all recorded individual Historic Flood Events Outlines from river, the sea and groundwater springs and shows areas of land that have previously been subject to flooding in England & Wales.	Environment Agency	© Environment Agency copyright and/or database right 2021. All rights reserved.
Lakes & Reservoirs	A body of water such as a lake or pond forming a geographical feature. Based on Ordnance Survey Vector Map District.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2021.
Land potentially required during construction	Boundary defining the maximum possible extent of construction works required to build HS2 as far as the current level of design allows. This only covers surface works and includes all tunnel portals, vent shafts and headhouses, but does not apply to wholly tunnelled sections or to air rights. It also encompasses associated highway, access, drainage and utility works.	High Speed Two (HS2) Ltd	
Licensed surface water abstractions (excluding public water supplies)	A surface water abstraction licence issued by the Environment Agency, which abstracts more than 20 cubic metres a day. Excludes the precise location of public water supplies in order to comply with Security and Environmental Measures Direction 1998.	Environment Agency	© Environment Agency copyright and/or database right 2021. All rights reserved.
Modelled Baseline Flood Extent 1 in 100(1%+CC) including Climate Change Annual Probability of River Flooding	The area covered by flooding of the river as a result of an event that is expected to occur with a probability of 1% in any one year under baseline conditions, with an allowance for climate change. (Also known as a 1 in 100 plus climate change annual probability).	High Speed Two (HS2) Ltd	
Modelled Baseline Flood Extent 1 in 20(5%) Annual Probability of River Flooding	The area covered by flooding of the river as a result of an event that is expected to occur with a probability of 5% in any one year under baseline conditions. (Also known as a 1 in 20 annual probability).	High Speed Two (HS2) Ltd	
Modelled Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding	The area covered by flooding of the river as a result of an event that is expected to occur with a probability of 5% in any one year under post-development conditions. (Also known as a 1 in 20 annual probability).	High Speed Two (HS2) Ltd	
Modelled Post Development Flood Extent1 in 100 (1%+CC) including Climate Change Annual Probability of River Flooding	The area covered by flooding of the river as a result of an event that is expected to occur with a probability of 1% in any one year under post-development conditions, with an allowance for climate change. (Also known as a 1 in 100 plus climate change annual probability).	High Speed Two (HS2) Ltd	

Legend features	Definition	Source	Copyright
Open water	A body of water such as a lake or pond forming a geographical feature. Based on Ordnance Survey MasterMap data.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2022.
Risk of Flooding from Surface Water	The risk of flooding from surface water that hasn't yet entered a watercourse.	Environment Agency	© Environment Agency copyright and/or database right 2019. All rights reserved.
Route in tunnel	Represents the proposed route of HS2, split into route on surface and tunnelled sections.	High Speed Two (HS2) Ltd	
Route on surface	Represents the proposed route of HS2, split into route on surface and tunnelled sections.	High Speed Two (HS2) Ltd	
Site of Special Scientific Interest (SSSI)	A Site of Special Scientific Interest (SSSI) is the land notified as an SSSI under the Wildlife and Countryside Act (1981), as amended.	Natural England	© Natural England copyright. Contains Ordnance Survey data. © Crown copyright and database right 2022.
Special Area of Conservation (SAC)	A Special Area of Conservation (SAC) is the land designated under Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.	Natural England	© Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right 2022.
Unlicensed private surface water abstraction	A private water supply from a surface water source, which abstracts less than 20 cubic metres a day. Local authorities currently hold a register of private water supplies. The local authorities are required in accordance with The Private Water Supplies Regulations 2009, to ensure that unlicensed abstractions meet certain quality standards.	Environment Agency	© Environment Agency copyright and/or database right 2019. All rights reserved
Watercourse	Any channel through which water flows, can be natural or manmade. They are split into two categories (main rivers or ordinary watercourses) in England and Wales for regulation purposes.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2022.
WFD Lakes Overall Status	Data is a combination of two datasets: WFD - Lake Waterbodies. The dataset contains the extents of waterbodies identified as "lakes" under the Water Framework Directive, based on River Basin Characterisation 2 (RBC2) data and Water Framework Directive – Surface Water Classification Status and Objectives (2013).	Environment Agency	© Environment Agency copyright and/or database right 2022. All rights reserved.
WFD Surface Water Bodies Overall Status Classification (2015 RBMP Cycle 2)	A discrete and significant element of surface water, identified by the Environment Agency and reported on maps in RBMP.	Environment Agency	© Environment Agency copyright and/or database right 2021. All rights reserved.

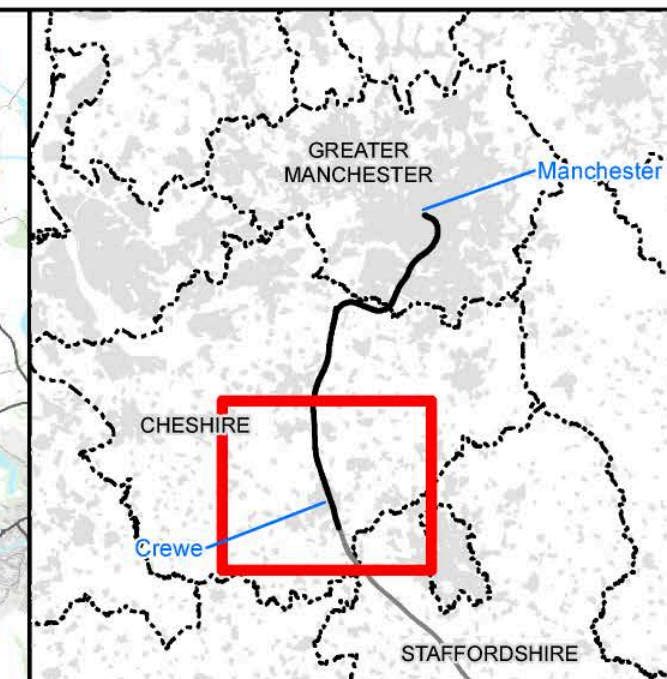
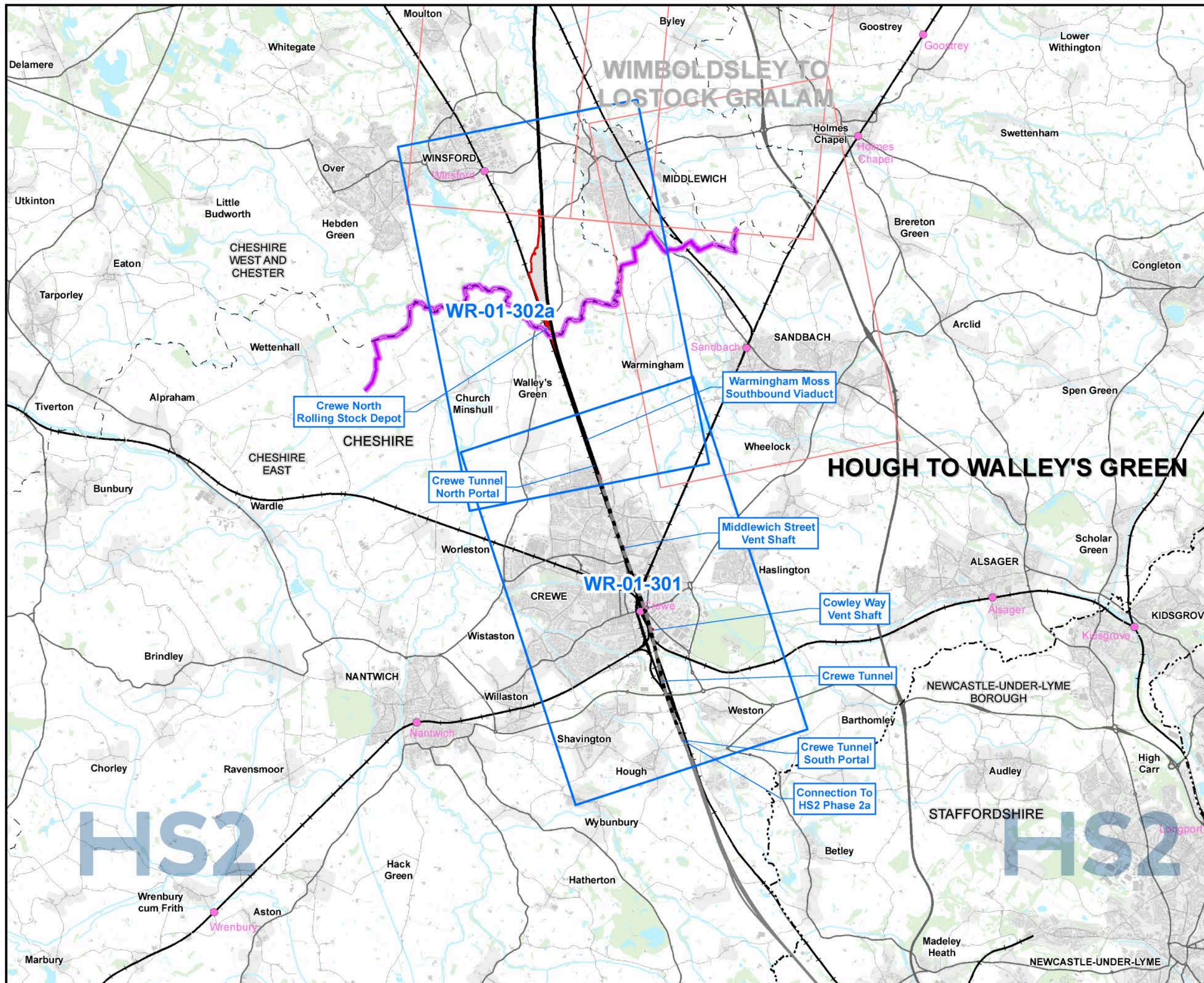
High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

MA01: Hough to Walley's Green

WR-01 - Surface Water Baseline

WR-03 - Water Framework Directive



Map Series Information:

This map series shows surface water features such as rivers, streams, ponds, canals and reservoirs, flood zones, and surface water abstractions. The design of the Proposed Scheme will be informed through stakeholder engagement and further engineering and environmental studies.

- Main Map Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Community area boundary
 - Existing railway station
 - County boundary
 - District/Borough boundary
 - Map sheets included in this community area
 - Map sheets included in this community with no amendment
 - Map sheets not included in this community area

Map Number: WR-01-INDEX-MA01

Map Name: Index Map of: Surface Water Baseline SES2 and AP2 ES Community Area MA01: Hough to Walley's Green

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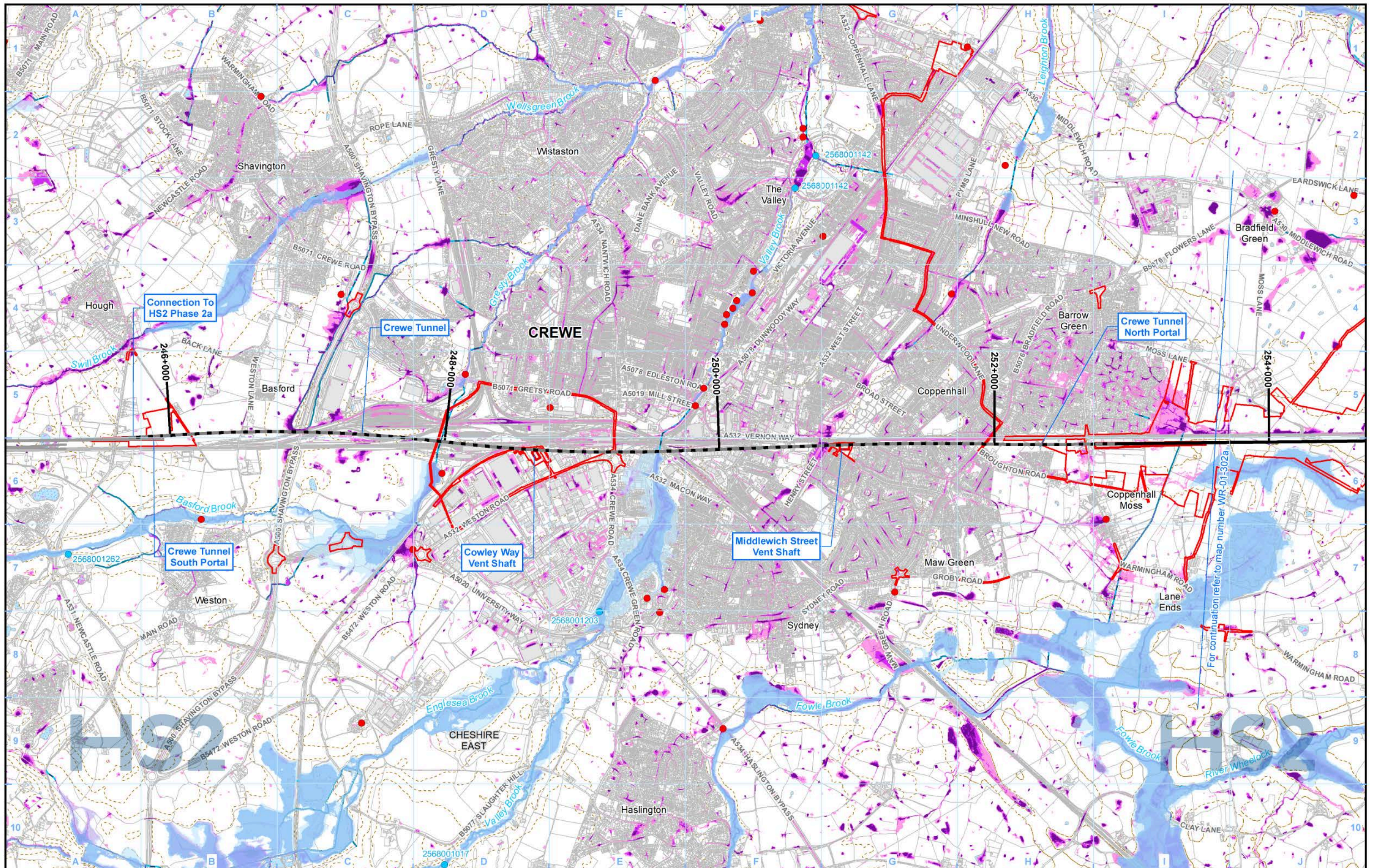
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Scale at A3: 1:100,000

Doc Number: 2PT27-MWJ-EV-MAP-M000-000306-P01

Date: 30/03/23

Note: Not all data layers in the legend are represented on every map.



Legend	
Route in tunnel	Licensed surface water abstraction (excluding public water supplies)
Route on surface	Unlicensed private surface water abstraction
Depot, station, headhouse or portal building	Consented discharge to surface water
Land potentially required during construction	Airport
Community area boundary	Watercourse
County boundary	Culverted watercourse
District/Borough boundary	Canal
	Canal tunnel
	Lakes & Reservoirs
	Historic flooding area
	Fluvial flood risk:
	Flood Zone 2
	Flood Zone 3
	Risk of Flooding from Surface Water:
	High - chance of flooding greater than 1 in 30 (3.33%)
	Medium - chance of flooding between 1 in 100 (1%) and 1 in 30 (3.33%)
	Low - chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)

Map Number	WR-01-301
Map Name	Surface Water Baseline SES2 and AP2 ES
	Community Area MA01: Hough to Walley's Green

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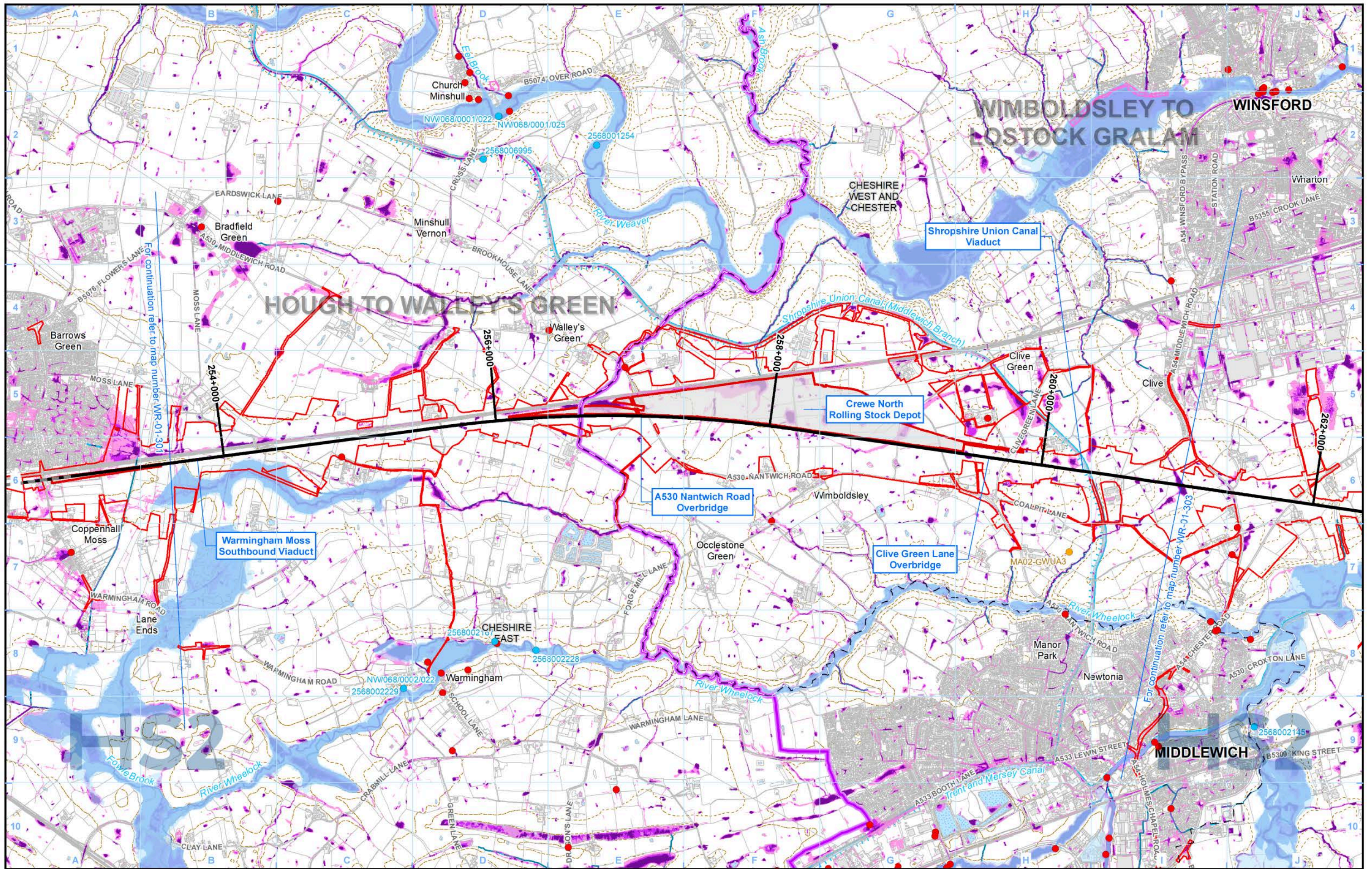
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Doc Number: 2PT27-MWJ-EV-MAP-M000-000294-P01 Date: 30/03/23

For continuation refer to map number WR-01-302a



- Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Land potentially required during construction
 - Community area boundary
 - County boundary
 - District/Borough boundary

- Licensed surface water abstraction (excluding public water supplies)
- Unlicensed private surface water abstraction
- Consented discharge to surface water
- Airport

- Watercourse
- Culverted watercourse
- Canal
- Canal tunnel
- Lakes & Reservoirs
- Historic flooding area

- Fluvial flood risk:**
- Flood Zone 2
 - Flood Zone 3
- Risk of Flooding from Surface Water:**
- High - chance of flooding greater than 1 in 30 (3.33%)
 - Medium - chance of flooding between 1 in 100 (1%) and 1 in 30 (3.33%)
 - Low - chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)

Map Number: WR-01-302a

Map Name: Surface Water Baseline SES2 and AP2 ES

Community Area MA01: Hough to Walley's Green

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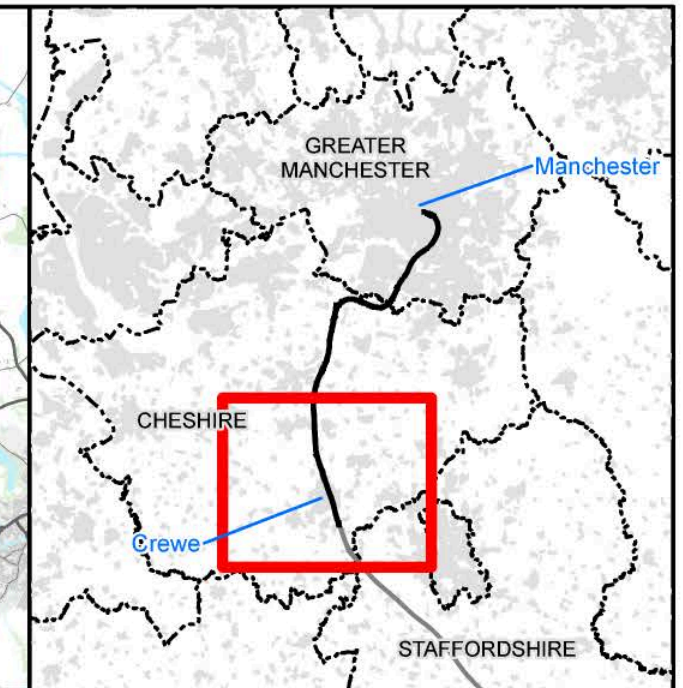
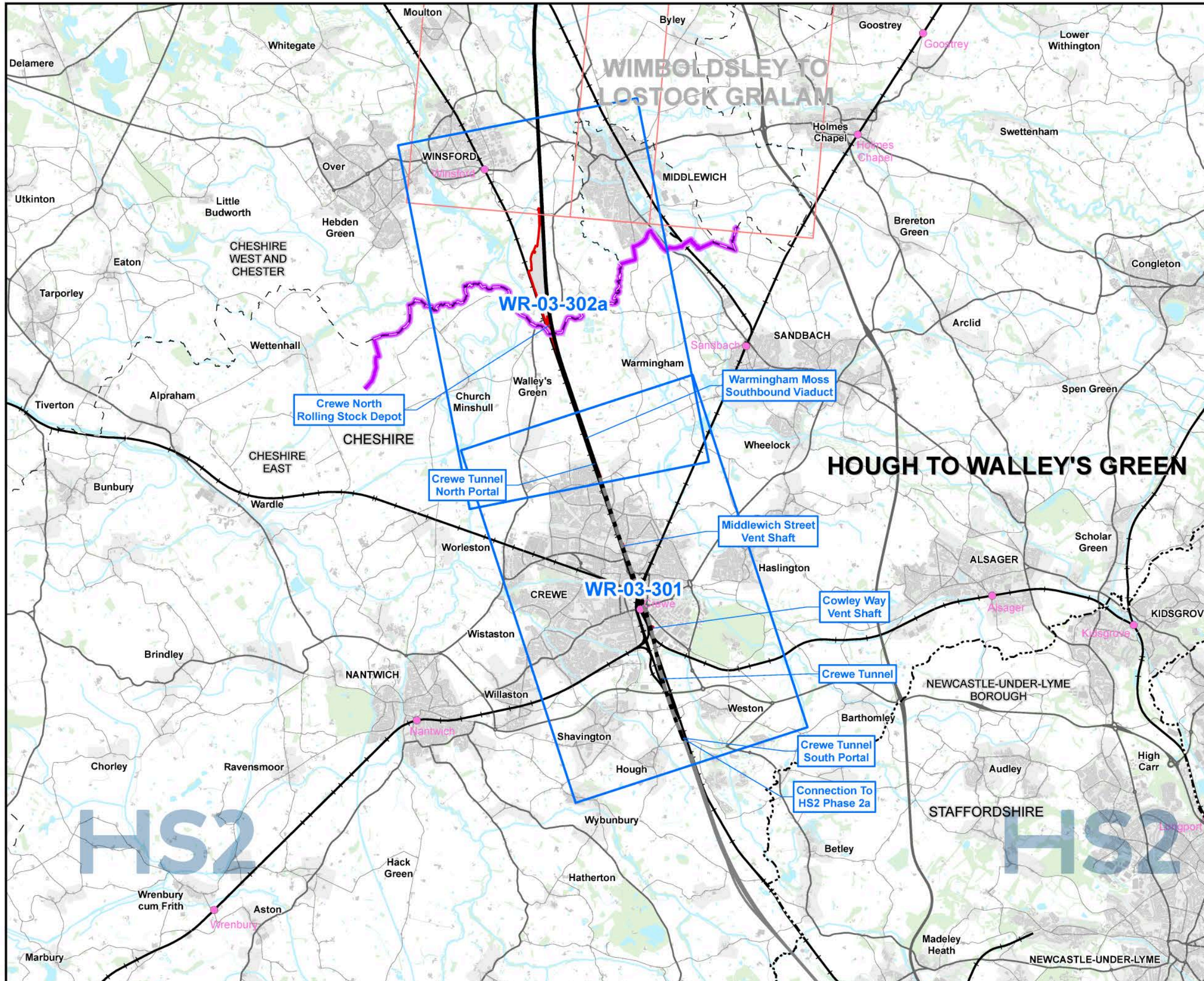
Date: 30/03/23

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Metros



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Map Series Information:

This map series shows water bodies, their Water Framework Directive current status and associated ecological features.

- Main Map Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Community area boundary
 - Existing railway station
 - County boundary
 - District/Borough boundary
 - Map sheets included in this community area
 - Map sheets included in this community with no amendment
 - Map sheets not included in this community area

Map Number **WR-03-INDEX-MA01**

Map Name
**Index Map of:
 Water Framework Directive
 SES2 and AP2 ES**
 Community Area MA01:
 Hough to Walley's Green

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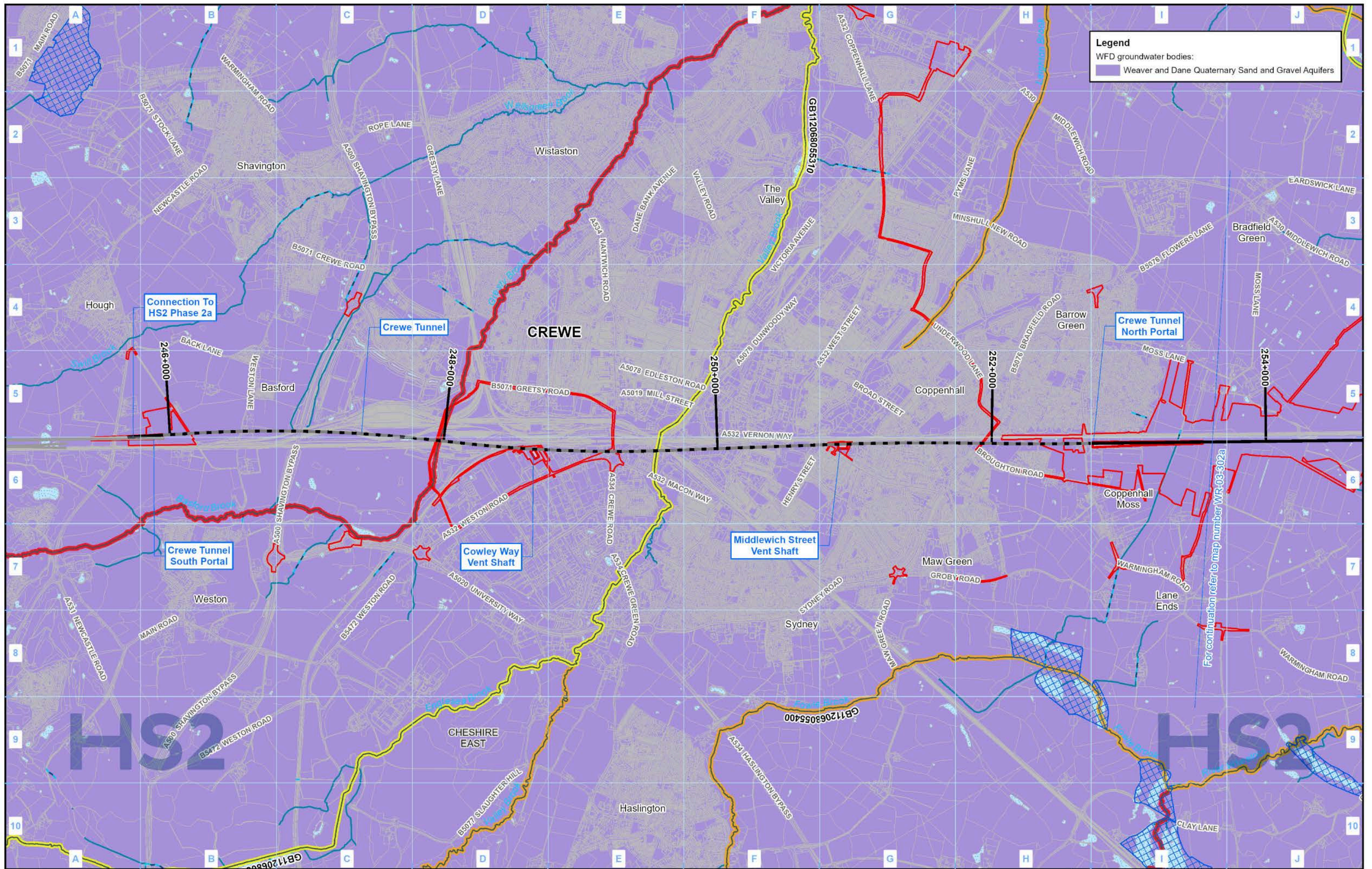
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002275-P01 **Date: 11/04/23**

Note: Not all data layers in the legend are represented on every map.



Legend
 WFD groundwater bodies:
 Weaver and Dane Quaternary Sand and Gravel Aquifers

Legend

- Route in tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Land potentially required during construction
- Community area boundary
- County boundary
- District/Borough boundary
- Canal
- Canal tunnel
- Watercourse
- Culverted watercourse
- Lakes & Reservoirs
- Airport

WFD Surface Water Bodies
 Overall Status Classification (2015 RBMP Cycle 2):

- Good
- Moderate
- Poor
- Bad

WFD Lakes
 Overall Status:

- Good
- Moderate
- Poor
- Bad

- Special Areas of Conservation (SAC)
- Sites of Special Scientific Interest (SSSI)

Map Number: WR-03-301
 Map Name: Water Framework Directive SES2 and AP2 ES
 Community Area MA01: Hough to Walley's Green

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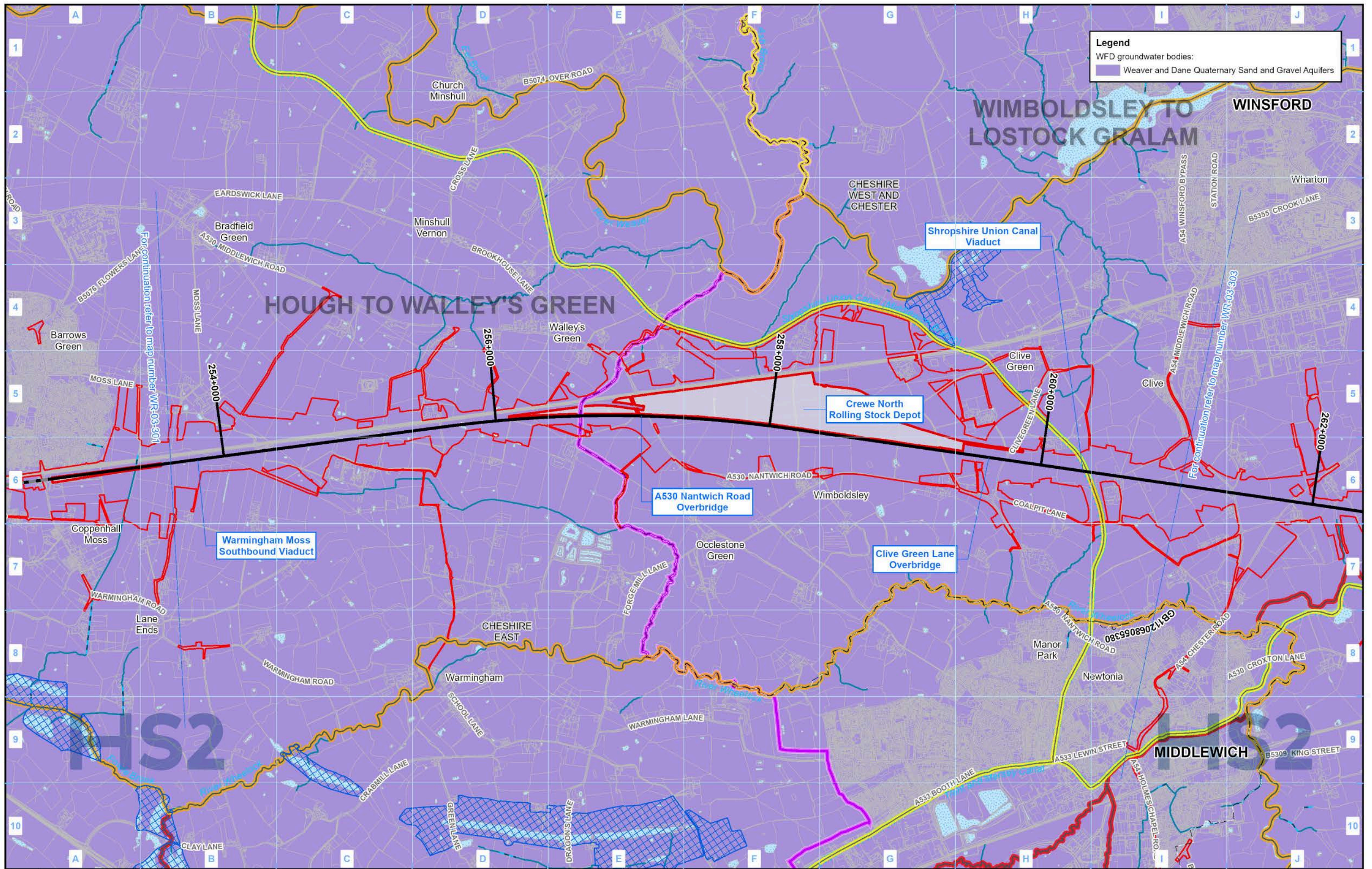
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002257-P01
 Date: 11/04/23

For confirmation refer to map number WR-03-302a



Legend
 WFD groundwater bodies:
 Weaver and Dane Quaternary Sand and Gravel Aquifers

Legend

- Route in tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Land potentially required during construction
- Community area boundary
- County boundary
- District/Borough boundary
- Canal
- Canal tunnel
- Watercourse
- Culverted watercourse
- Lakes & Reservoirs
- Airport

WFD Surface Water Bodies
 Overall Status Classification (2015 RBMP Cycle 2):

- Good
- Moderate
- Poor
- Bad

WFD Lakes
 Overall Status:

- Good
- Moderate
- Poor
- Bad

- Special Areas of Conservation (SAC)
- Sites of Special Scientific Interest (SSSI)

Map Number: WR-03-302a
 Map Name: Water Framework Directive SES2 and AP2 ES
 Community Area MA01: Hough to Walley's Green

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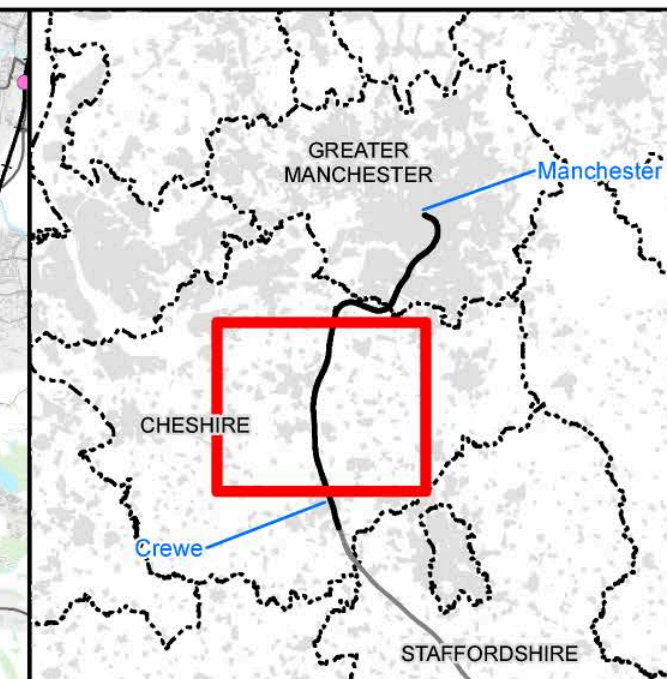
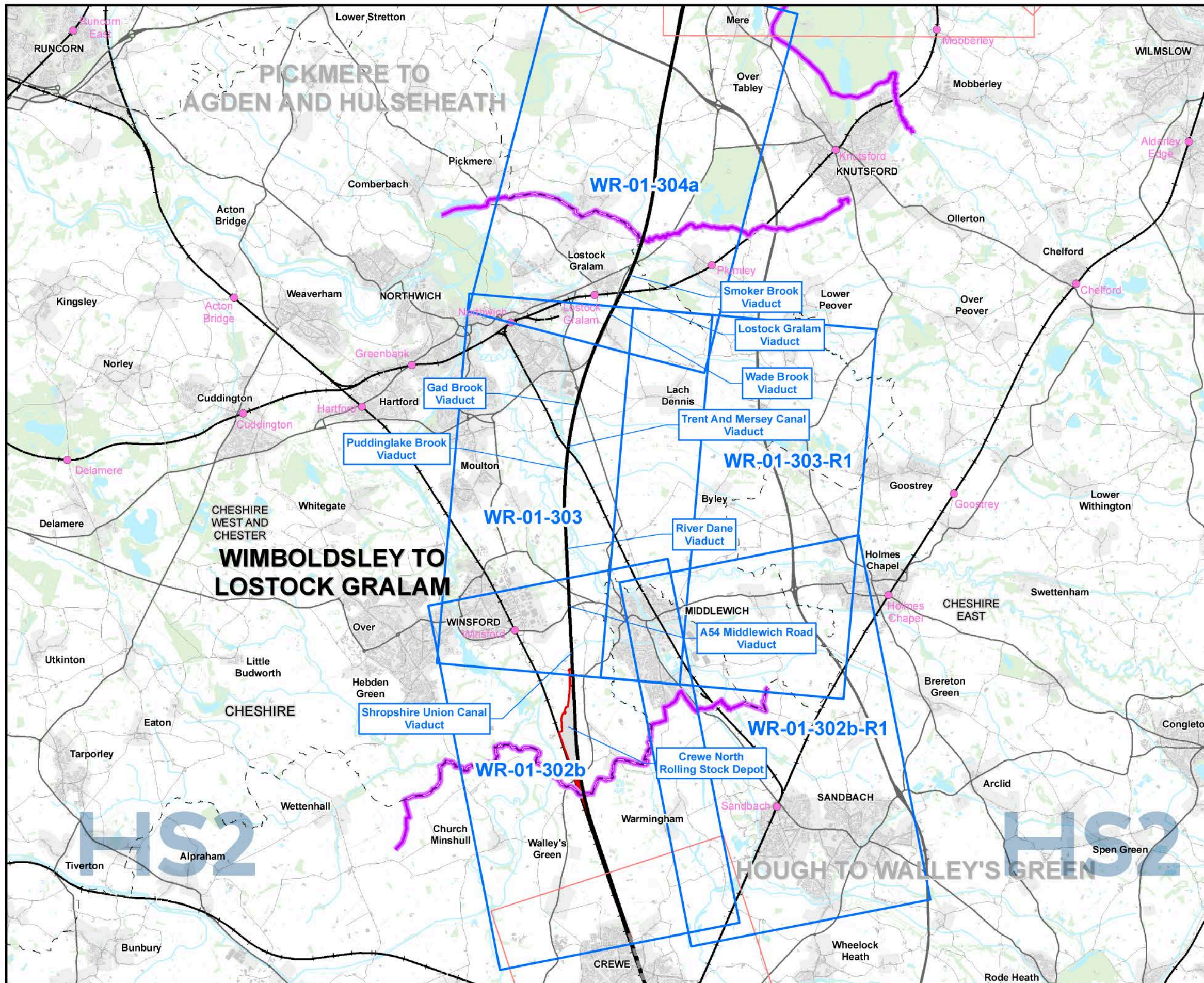
High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

MA02: Wimboldsley to Lostock Gralam

WR-01 - Surface Water Baseline

WR-03 - Water Framework Directive



Map Series Information:

This map series shows surface water features such as rivers, streams, ponds, canals and reservoirs, flood zones, and surface water abstractions. The design of the Proposed Scheme will be informed through stakeholder engagement and further engineering and environmental studies.

- Main Map Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Community area boundary
 - Existing railway station
 - County boundary
 - District/Borough boundary
 - Map sheets included in this community area
 - Map sheets included in this community with no amendment
 - Map sheets not included in this community area

Map Number: WR-01-INDEX-MA02

Map Name: Index Map of:
Surface Water Baseline
SES2 and AP2 ES
Community Area MA02:
Wimboldsley to Lostock Gralam

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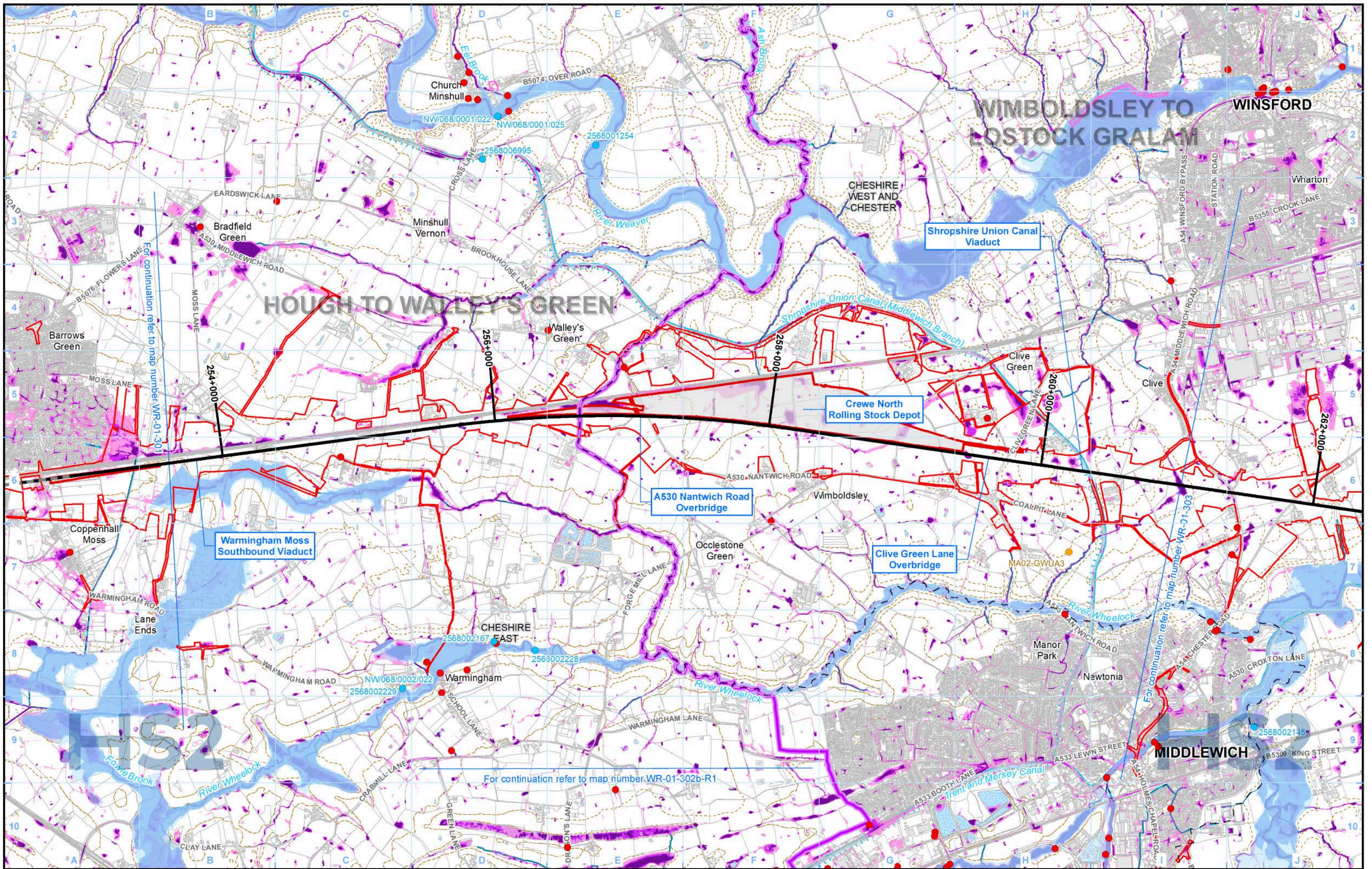
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Doc Number: 2PT27-MWJ-EV-MAP-M000-000180-P01

Date: 30/03/23

Note: Not all data layers in the legend are represented on every map.



- Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Land potentially required during construction
 - Community area boundary
 - County boundary
 - District/Borough boundary

- Licensed surface water abstraction (excluding public water supplies)
- Unlicensed private surface water abstraction
- Consented discharge to surface water
- Airport

- Watercourse
- Culverted watercourse
- Canal
- Canal tunnel
- Lakes & Reservoirs
- Historic flooding area

- Fluvial flood risk:**
- Flood Zone 2
 - Flood Zone 3
- Risk of Flooding from Surface Water:**
- High - chance of flooding greater than 1 in 30 (3.33%)
 - Medium - chance of flooding between 1 in 100 (1%) and 1 in 30 (3.33%)
 - Low - chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)

Map Number: **WR-01-302b**

Map Name: **Surface Water Baseline
SES2 and AP2 ES**

Community Area MA02:
Wimboldsley to Lostock Gralam

HS2

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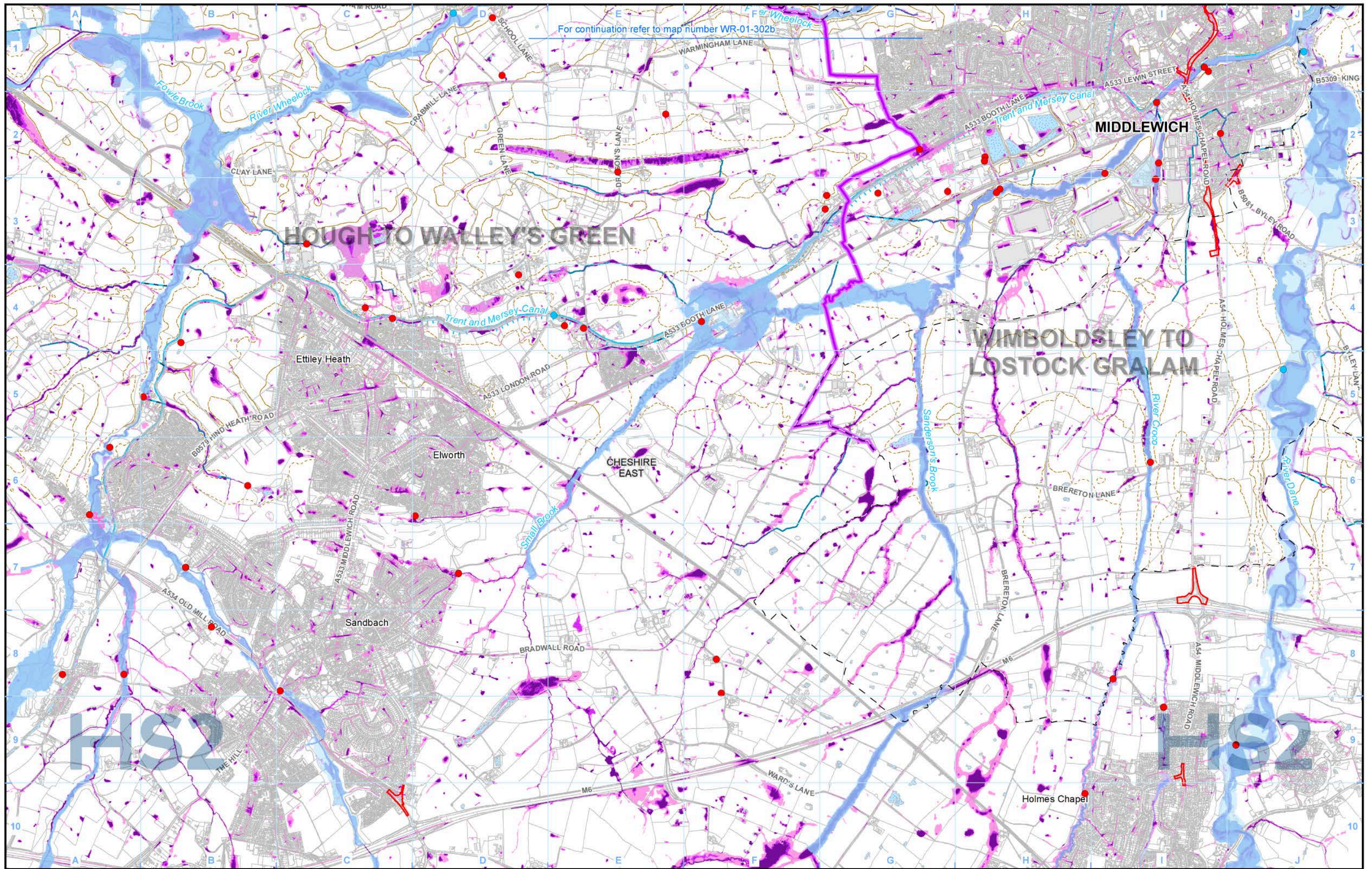
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Doc Number: 2PT27-MWJ-EV-MAP-M000-000181-P01

Date: 30/03/23

Scale at A3: 1:25,000

Metros



For continuation refer to map number WR-01-302b

- Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Land potentially required during construction
 - Community area boundary
 - County boundary
 - District/Borough boundary

- Licensed surface water abstraction (excluding public water supplies)
- Unlicensed private surface water abstraction
- Consented discharge to surface water
- Airport

- Watercourse
- Culverted watercourse
- Canal
- Canal tunnel
- Lakes & Reservoirs
- Historic flooding area

- Fluvial flood risk:**
- Flood Zone 2
 - Flood Zone 3
- Risk of Flooding from Surface Water:**
- High - chance of flooding greater than 1 in 30 (3.33%)
 - Medium - chance of flooding between 1 in 100 (1%) and 1 in 30 (3.33%)
 - Low - chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)

Map Number: WR-01-302b-R1

Map Name: Surface Water Baseline SES2 and AP2 ES

Community Area MA02: Hough to Walley's Green

HS2

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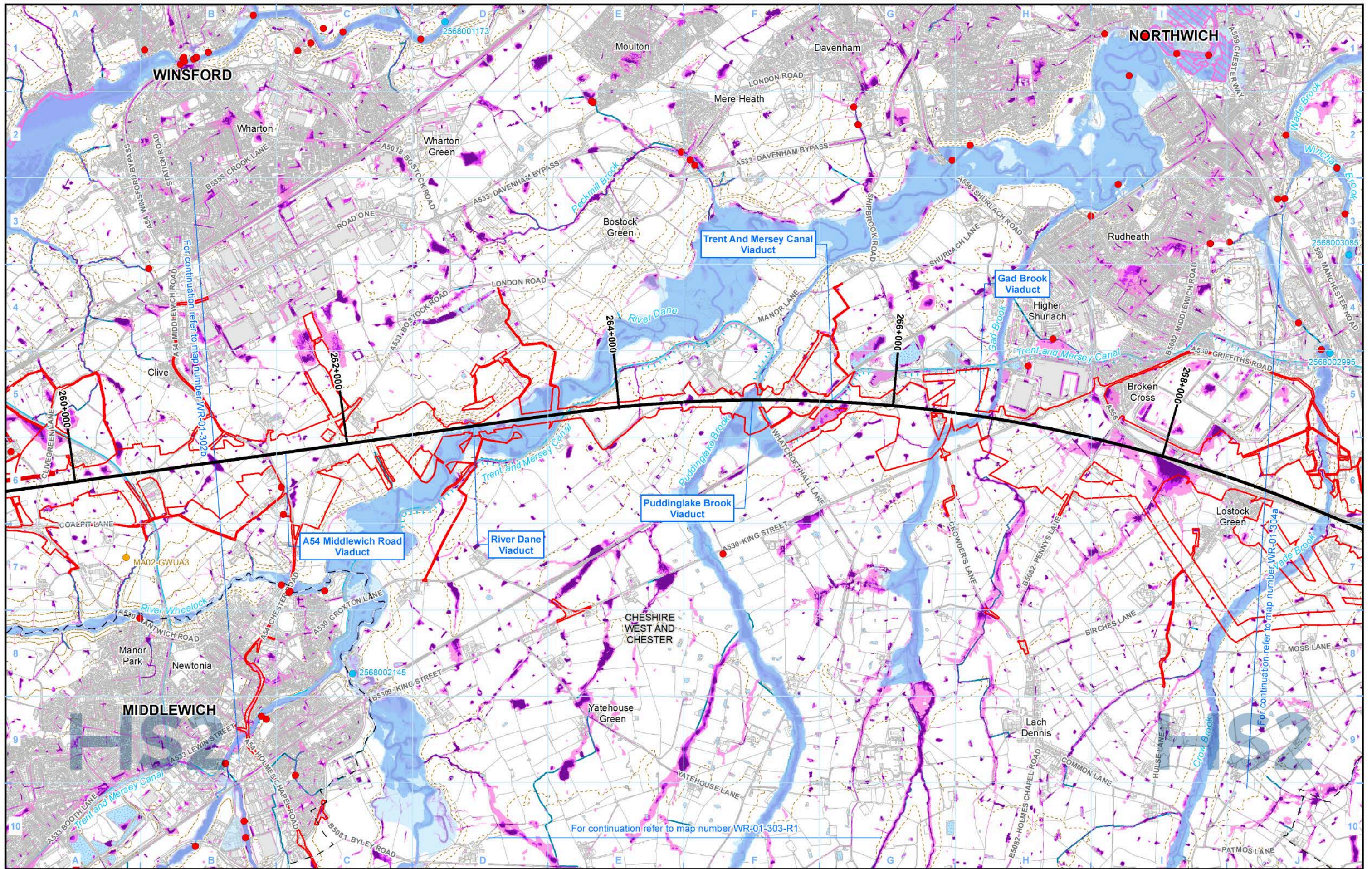
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Doc Number: 2PT27-MWJ-EV-MAP-M000-004061-P01

Date: 30/03/23

Scale at A3: 1:25,000

Metros



- Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Land potentially required during construction
 - Community area boundary
 - County boundary
 - District/Borough boundary

- Licensed surface water abstraction (excluding public water supplies)
- Unlicensed private surface water abstraction
- Consented discharge to surface water
- Airport

- Watercourse
- Culverted watercourse
- Canal
- Canal tunnel
- Lakes & Reservoirs
- Historic flooding area

- Fluvial flood risk:**
- Flood Zone 2
 - Flood Zone 3
- Risk of Flooding from Surface Water:**
- High - chance of flooding greater than 1 in 30 (3.33%)
 - Medium - chance of flooding between 1 in 100 (1%) and 1 in 30 (3.33%)
 - Low - chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)

Map Number: **WR-01-303**

Map Name: **Surface Water Baseline SES2 and AP2 ES**

Community Area MA02: Wimboldsley to Lostock Gralam

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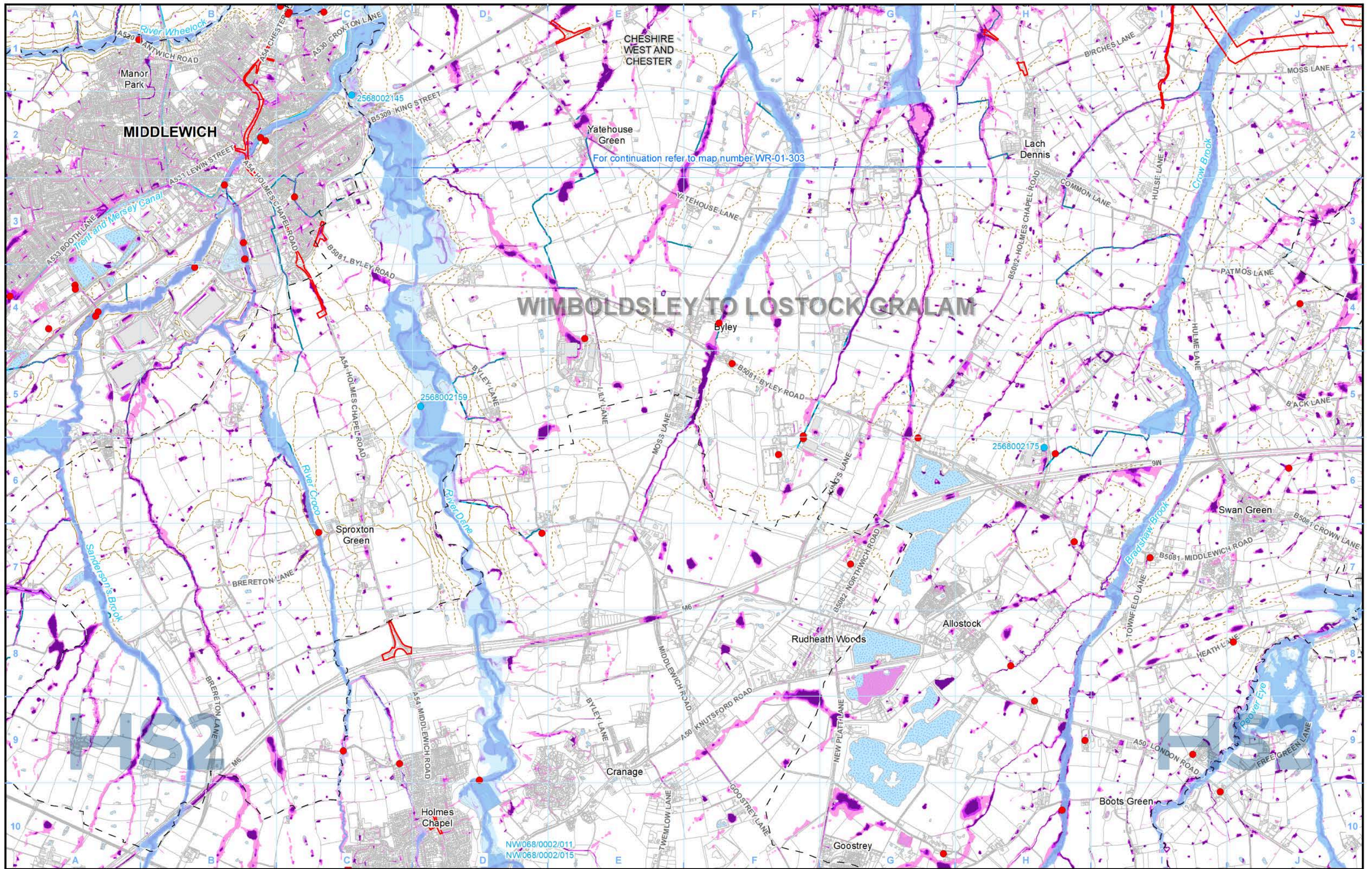
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Date: 30/03/23

Scale at A3: 1:25,000

Metros



For continuation refer to map number WR-01-303

WIMBOLDSLEY TO LOSTOCK GRALAM

Legend

- Route in tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Land potentially required during construction
- Community area boundary
- County boundary
- District/Borough boundary
- Licensed surface water abstraction (excluding public water supplies)
- Unlicensed private surface water abstraction
- Consented discharge to surface water
- Airport
- Watercourse
- Culverted watercourse
- Canal
- Canal tunnel
- Lakes & Reservoirs
- Historic flooding area
- Fluvial flood risk: Flood Zone 2
- Fluvial flood risk: Flood Zone 3

Risk of Flooding from Surface Water:

- High - chance of flooding greater than 1 in 30 (3.33%)
- Medium - chance of flooding between 1 in 100 (1%) and 1 in 30 (3.33%)
- Low - chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)

Map Number: **WR-01-303-R1**

Map Name: **Surface Water Baseline
SES2 and AP2 ES**

Community Area MA02:
Wimboldsley to Lostock Gralam

HS2

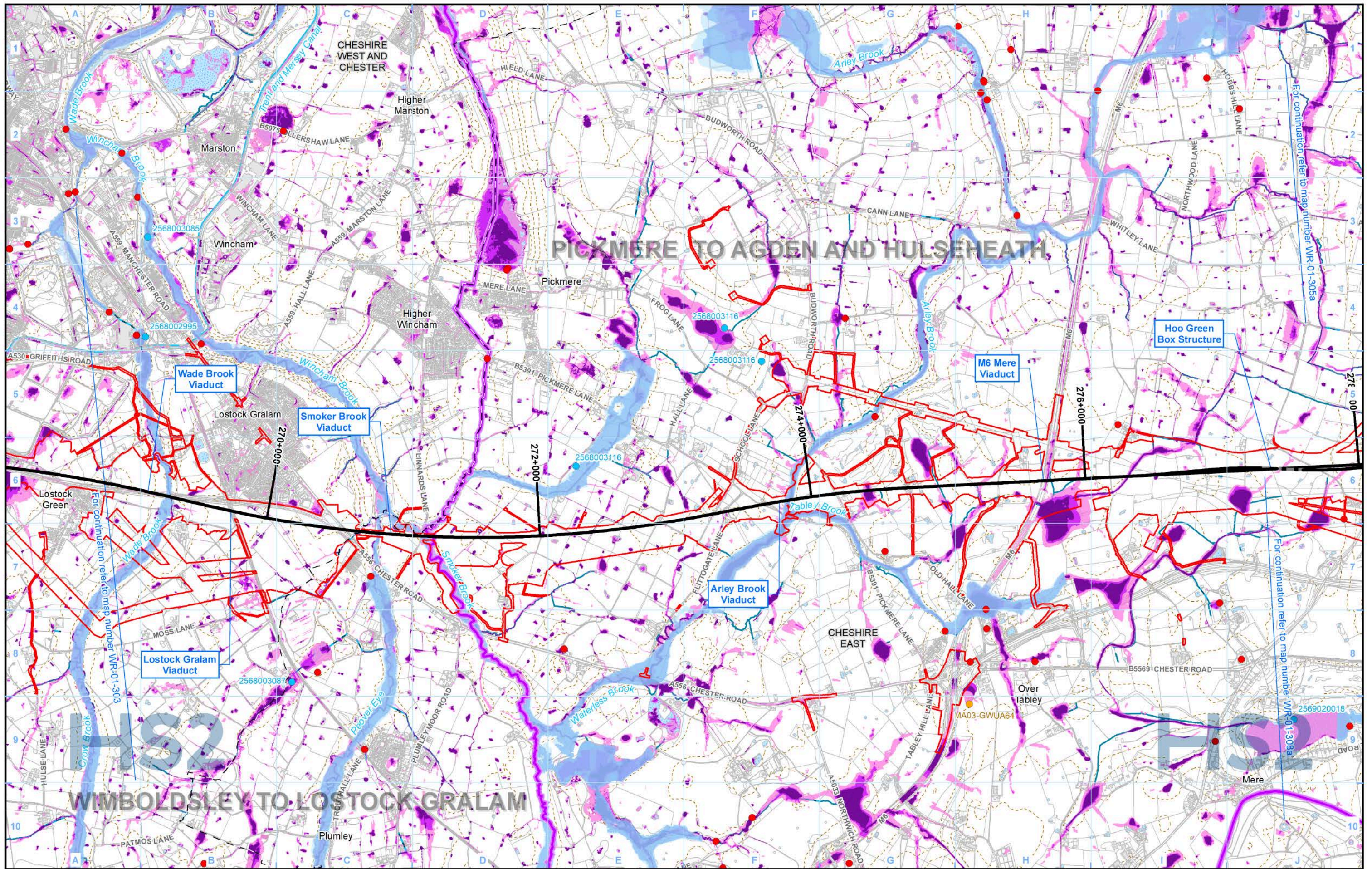
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002403-P01

Date: 30/03/23



- Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Land potentially required during construction
 - Community area boundary
 - County boundary
 - District/Borough boundary
 - Licensed surface water abstraction (excluding public water supplies)
 - Unlicensed private surface water abstraction
 - Consented discharge to surface water
 - Airport
 - Watercourse
 - Culverted watercourse
 - Canal
 - Canal tunnel
 - Lakes & Reservoirs
 - Historic flooding area
 - Fluvial flood risk: Flood Zone 2
 - Fluvial flood risk: Flood Zone 3
 - Risk of Flooding from Surface Water: High - chance of flooding greater than 1 in 30 (3.33%)
 - Risk of Flooding from Surface Water: Medium - chance of flooding between 1 in 100 (1%) and 1 in 30 (3.33%)
 - Risk of Flooding from Surface Water: Low - chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)

Map Number: WR-01-304a

Map Name: Surface Water Baseline SES2 and AP2 ES

Community Area MA02: Wimboldsley to Lostock Gralam

HS2

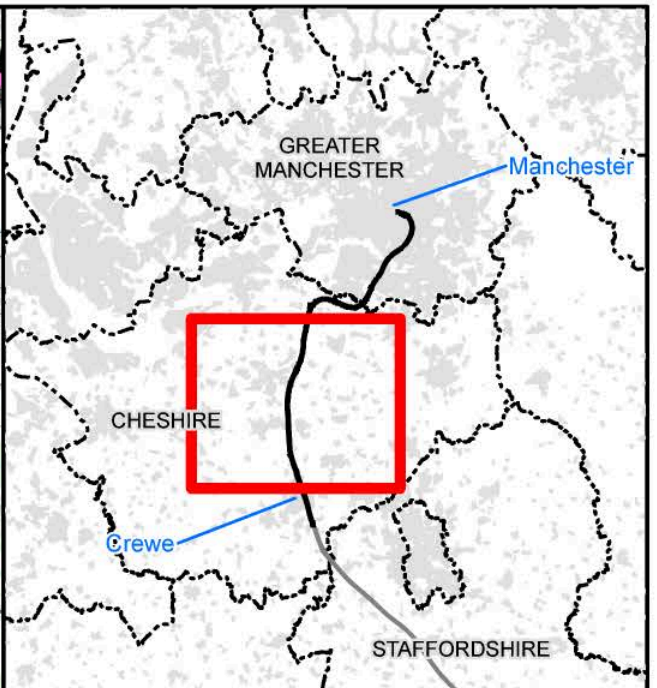
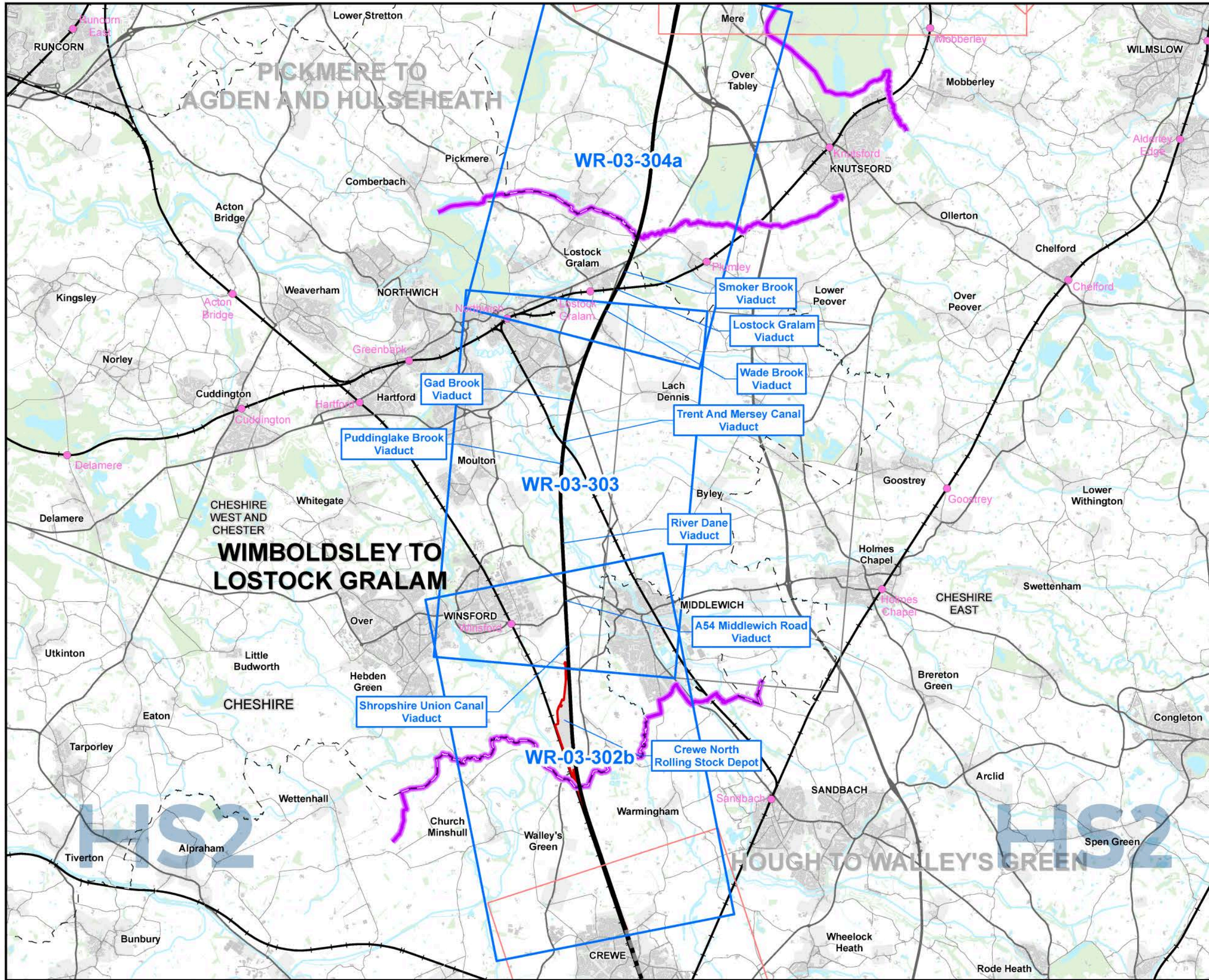
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Doc Number: 2PT27-MWJ-EV-MAP-M000-000247-P01

Date: 30/03/23

Scale at A3: 1:25,000



Map Series Information:

This map series shows water bodies, their Water Framework Directive current status and associated ecological features.

- Main Map Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Community area boundary
 - Existing railway station
 - County boundary
 - District/Borough boundary
 - Map sheets included in this community area
 - Map sheets included in this community with no amendment
 - Map sheets not included in this community area

Map Number **WR-03-INDEX-MA02**

Map Name **Index Map of:
Water Framework Directive
SES2 and AP2 ES
Community Area MA02:
Wimboldsley to Lostock Gralam**

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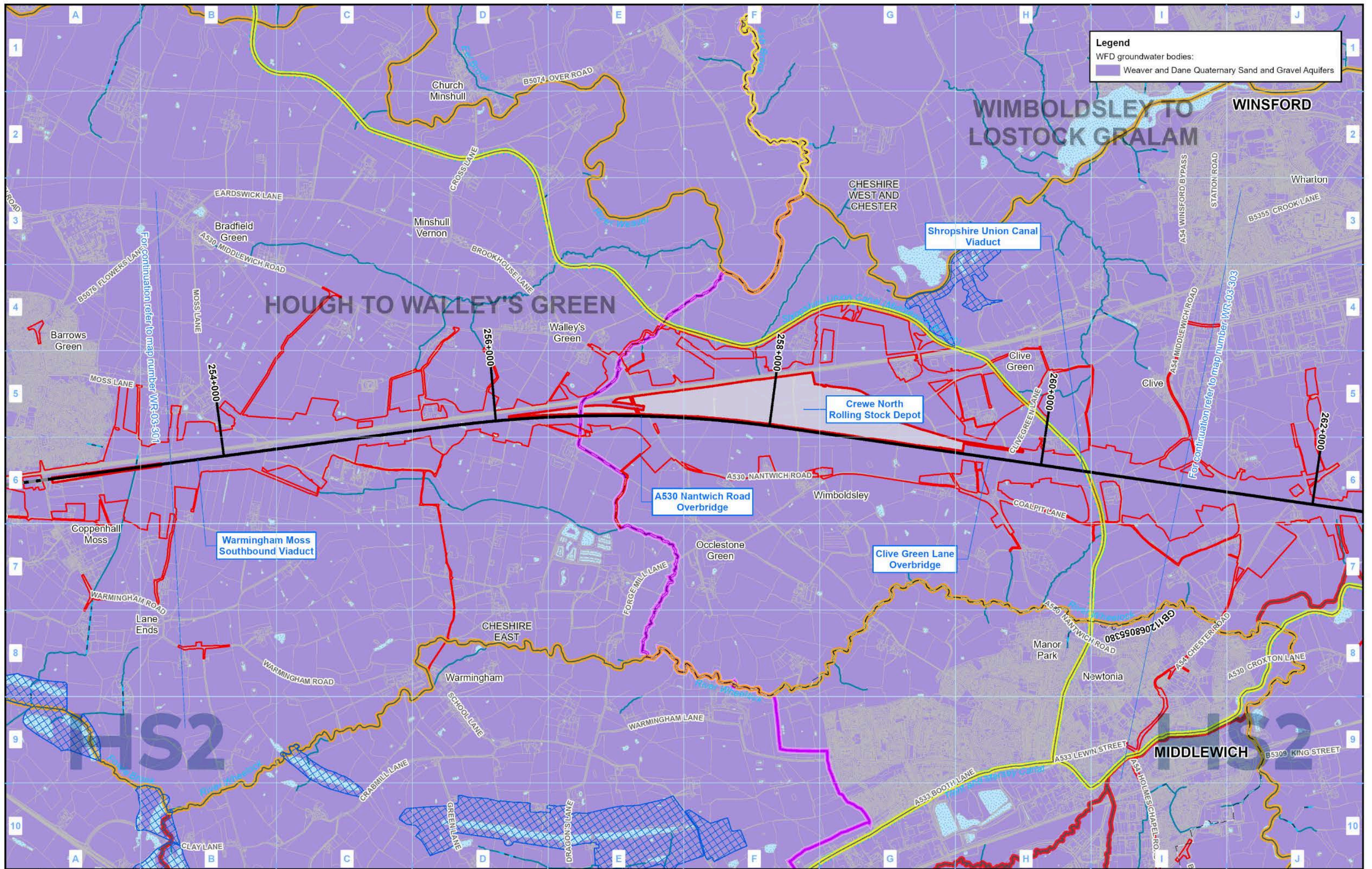
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002276-P01 **Date: 11/04/23**

Note: Not all data layers in the legend are represented on every map.



Legend
 WFD groundwater bodies:
 Weaver and Dane Quaternary Sand and Gravel Aquifers

Legend

- Route in tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Land potentially required during construction
- Community area boundary
- County boundary
- District/Borough boundary
- Canal
- Canal tunnel
- Watercourse
- Culverted watercourse
- Lakes & Reservoirs
- Airport

WFD Surface Water Bodies
 Overall Status Classification (2015 RBMP Cycle 2):

- Good
- Moderate
- Poor
- Bad

WFD Lakes
 Overall Status:

- Good
- Moderate
- Poor
- Bad

- Special Areas of Conservation (SAC)
- Sites of Special Scientific Interest (SSSI)

Map Number: WR-03-302b
 Map Name: Water Framework Directive SES2 and AP2 ES
 Community Area MA02: Wimboldsley to Lostock Gralam

HS2

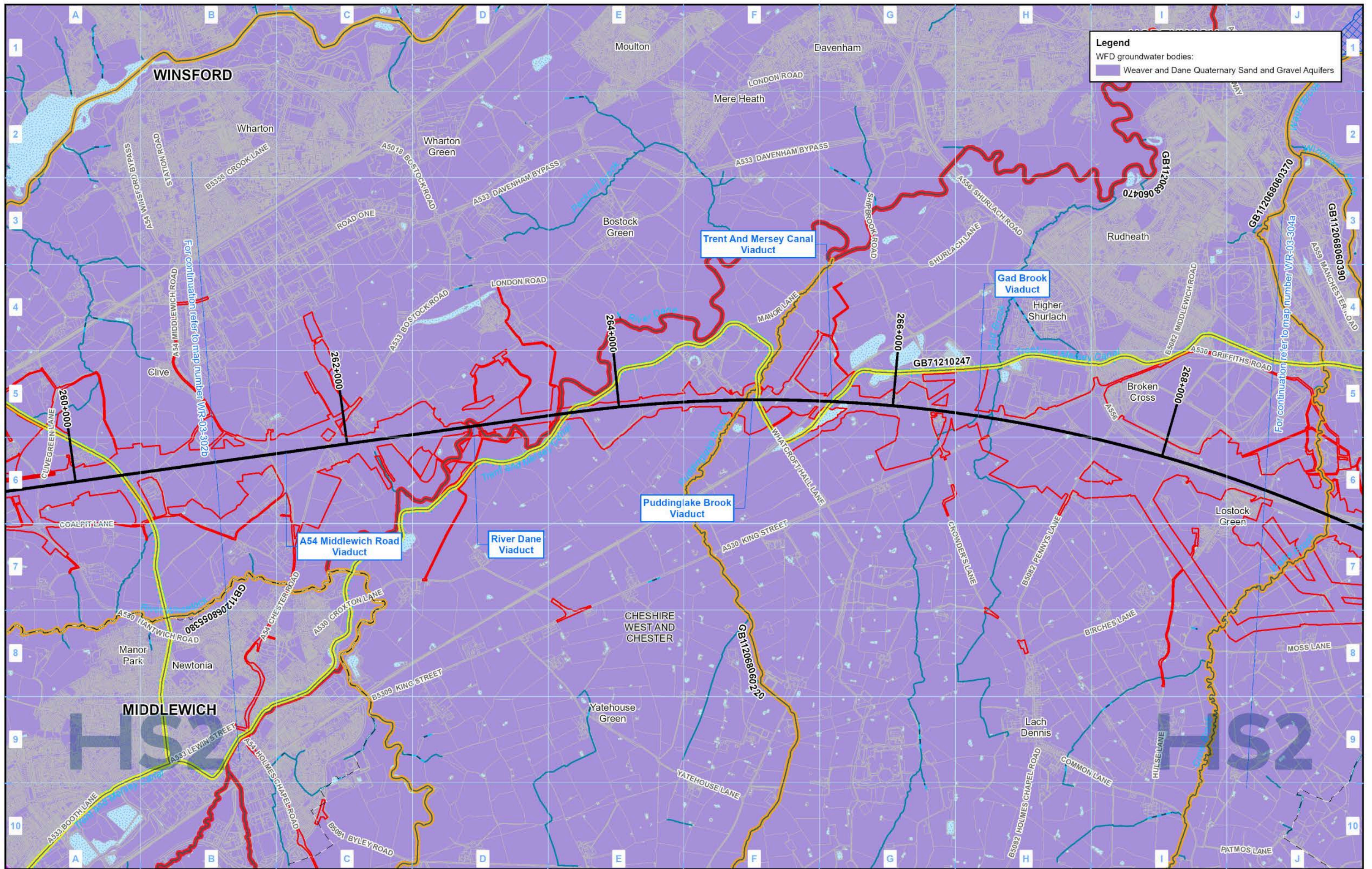
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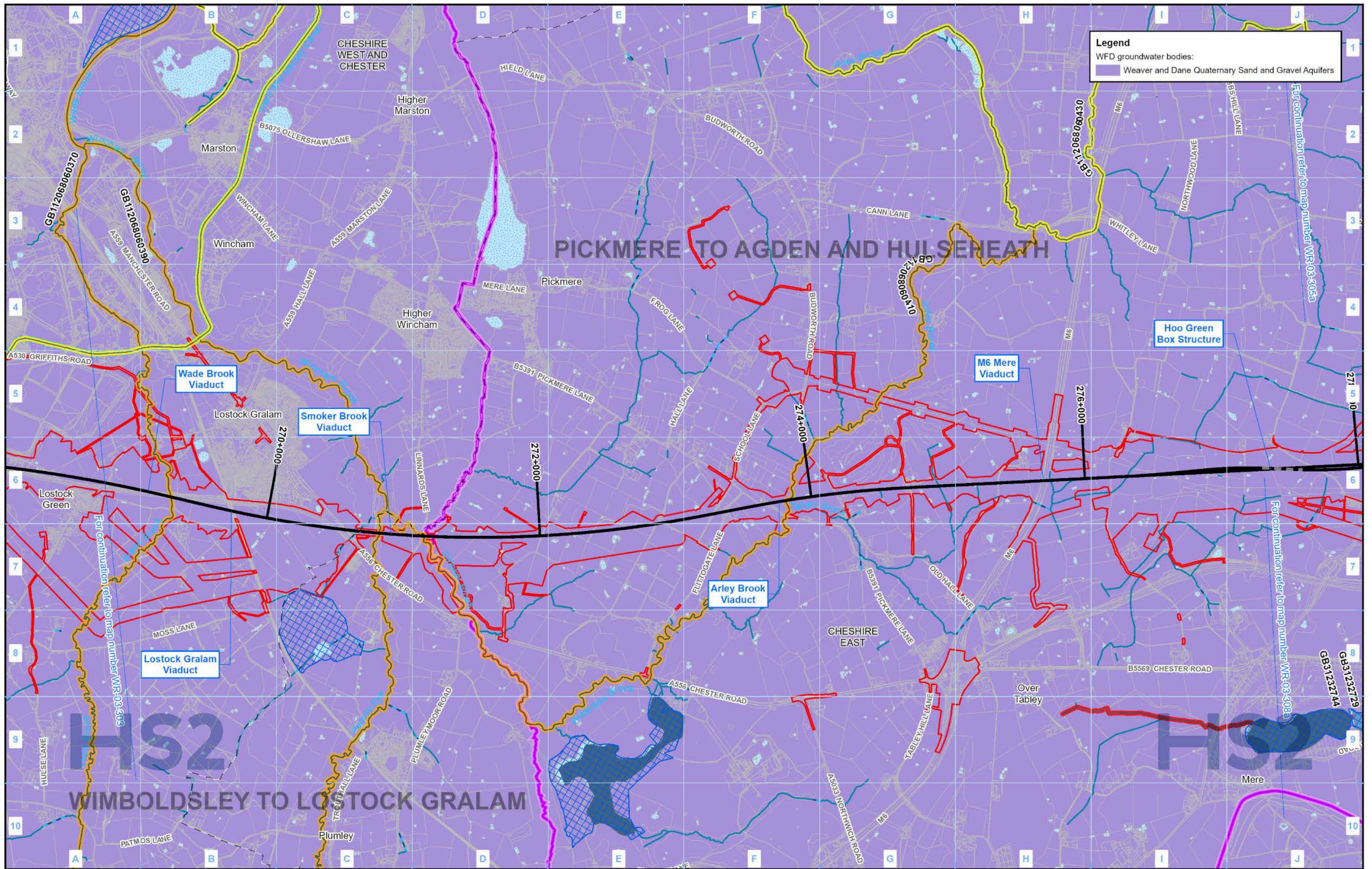
Scale at A3: 1:25,000

Doc Number: 2PT27-MWJ-EV-MAP-M000-002256-P01
 Date: 11/04/23



Legend
 WFD groundwater bodies:
 Weaver and Dane Quaternary Sand and Gravel Aquifers

<p>Legend</p> <ul style="list-style-type: none"> Route in tunnel Route on surface Depot, station, headhouse or portal building Land potentially required during construction Community area boundary County boundary District/Borough boundary 	<ul style="list-style-type: none"> Canal Canal tunnel Watercourse Culverted watercourse Lakes & Reservoirs Airport 	<p>WFD Surface Water Bodies Overall Status Classification (2015 RBMP Cycle 2):</p> <ul style="list-style-type: none"> Good Moderate Poor Bad 	<p>WFD Lakes Overall Status:</p> <ul style="list-style-type: none"> Good Moderate Poor Bad 	<ul style="list-style-type: none"> Special Areas of Conservation (SAC) Sites of Special Scientific Interest (SSSI) 	<p>Map Number: WR-03-303</p> <p>Map Name: Water Framework Directive SES2 and AP2 ES</p> <p>Community Area MA02: Wimboldsley to Lostock Gralam</p>	<p>HS2</p> <p>HS2 Ltd accepted no responsibility for any circumstances, which arise from the reproduction of this map after alteration, amendment or abbreviation or if it is issued in part or issued incomplete in any way.</p> <p>Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.</p> <p>© Crown copyright and database rights 2022 OS 100049190</p> <p>Doc Number: 2PT27-MWJ-EV-MAP-M000-002258-P01</p> <p>Date: 11/04/23</p> <p>Scale at A3: 1:25,000</p>
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Legend
 WFD groundwater bodies:
 Weaver and Dane Quaternary Sand and Gravel Aquifers

Legend

- Route in tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Land potentially required during construction
- Community area boundary
- County boundary
- District/Borough boundary
- Canal
- Canal tunnel
- Watercourse
- Culverted watercourse
- Lakes & Reservoirs
- Airport

WFD Surface Water Bodies
 Overall Status Classification (2015 RBMP Cycle 2):

- Good
- Moderate
- Poor
- Bad

WFD Lakes
 Overall Status:

- Good
- Moderate
- Poor
- Bad

- Special Areas of Conservation (SAC)
- Sites of Special Scientific Interest (SSSI)

Map Number: WR-03-304a
 Map Name: Water Framework Directive SES2 and AP2 ES
 Community Area MA02: Wimboldsley to Lostock Gralam

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 Date: 11/04/23

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High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

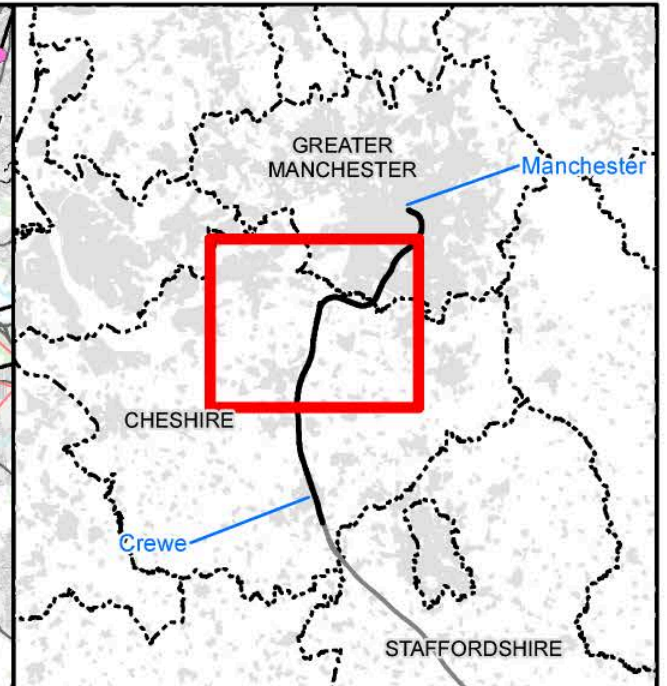
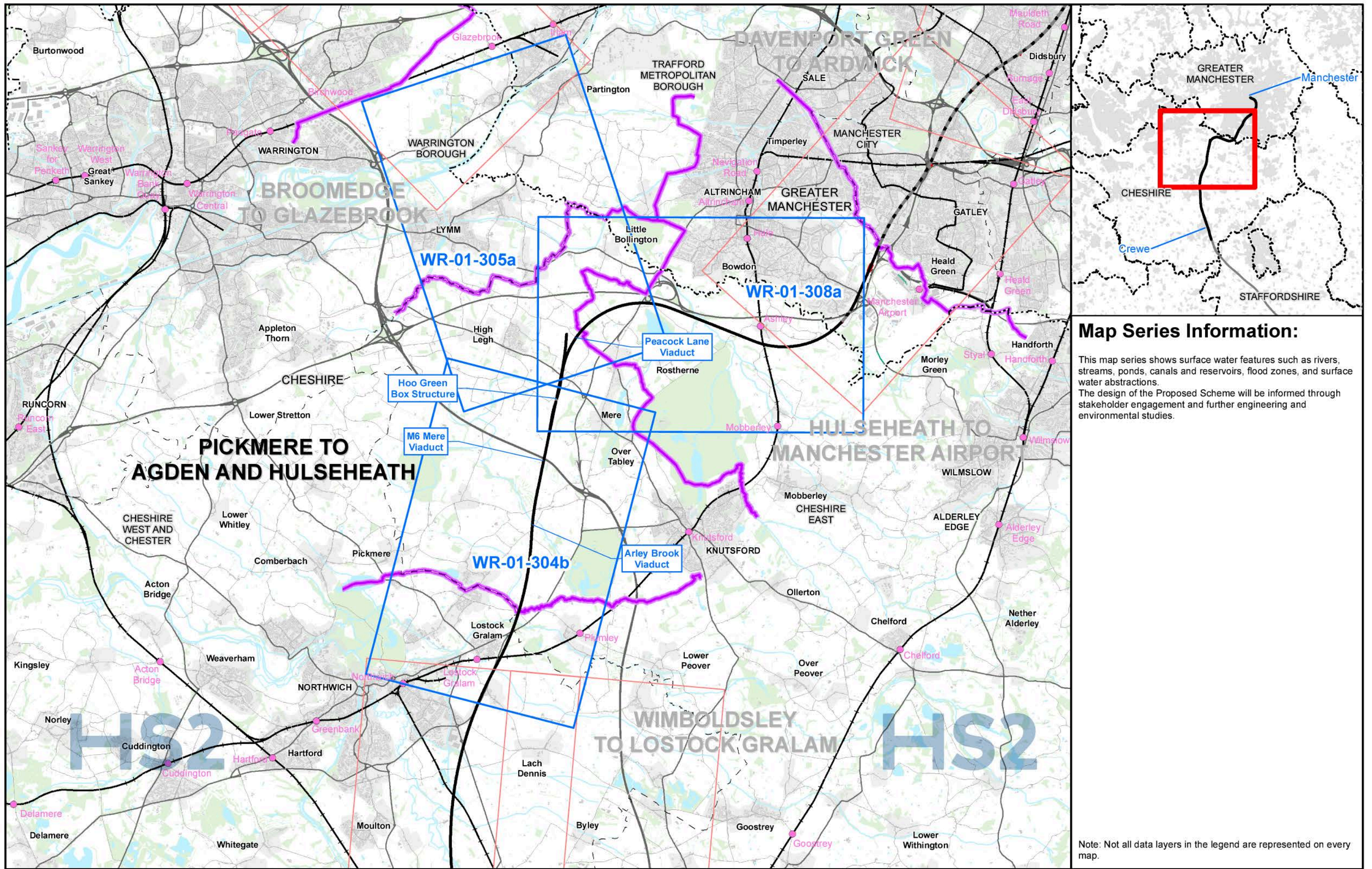
MA03: Pickmere to Agden and Hulseheath

WR-01 - Surface Water Baseline

WR-03 - Water Framework Directive

WR-05 - Modelled Baseline and Post Development Flood Extent 1 in 100 (1%CC) including Climate Change Annual Probability of River Flooding

WR-06 - Modelled Baseline and Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding



Map Series Information:

This map series shows surface water features such as rivers, streams, ponds, canals and reservoirs, flood zones, and surface water abstractions. The design of the Proposed Scheme will be informed through stakeholder engagement and further engineering and environmental studies.

- Main Map Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Community area boundary
 - Existing railway station
 - County boundary
 - District/Borough boundary
 - Map sheets included in this community area
 - Map sheets included in this community with no amendment
 - Map sheets not included in this community area

Map Number: **WR-01-INDEX-MA03**

Map Name: **Index Map of:
Surface Water Baseline
SES2 and AP2 ES**

Community Area MA03:
Pickmere to Agden and Hulseheath

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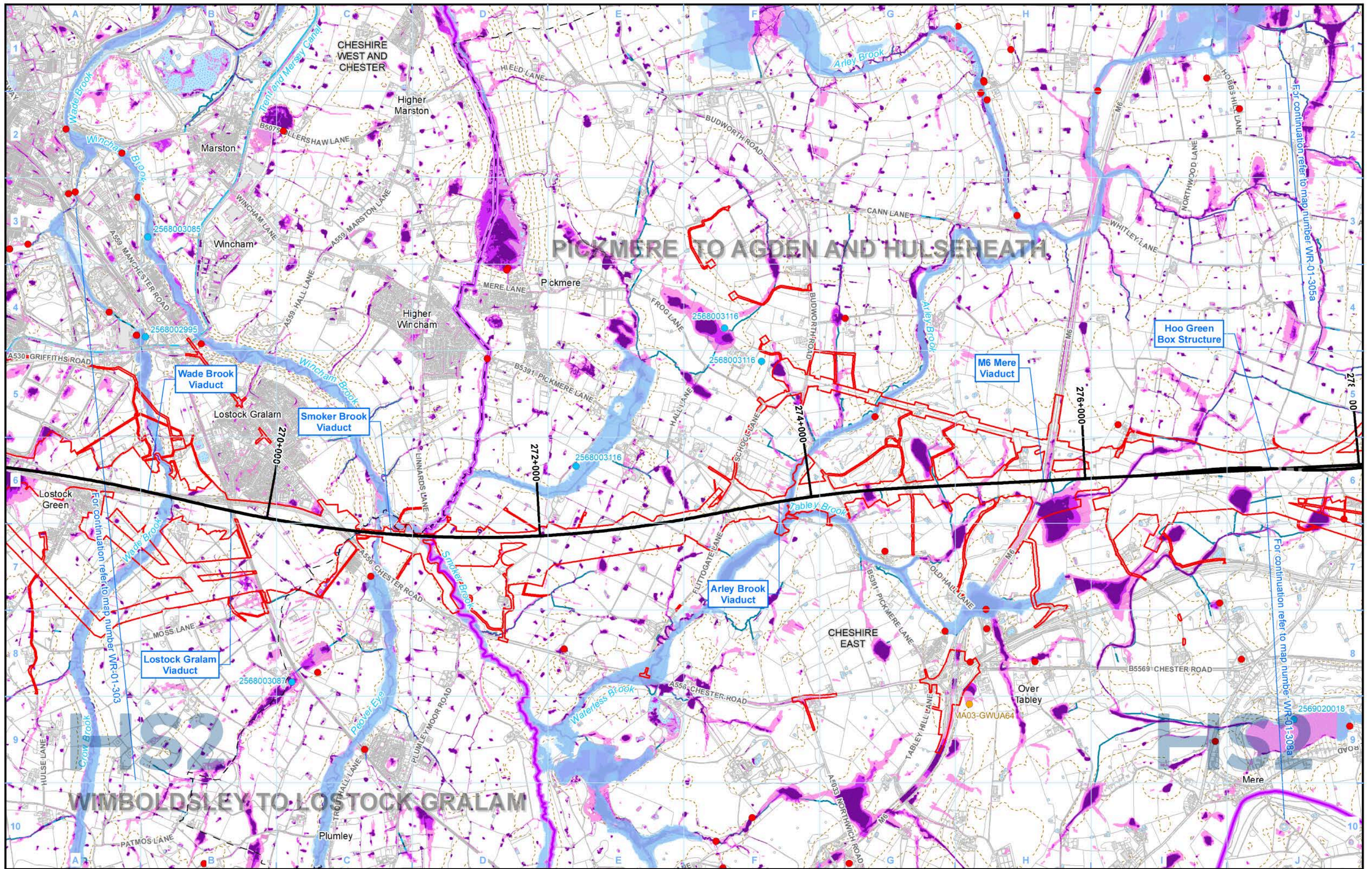
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0 1,000 2,000 3,000 4,000
Metres

Doc Number: 2PT27-MWJ-EV-MAP-M000-000307-P01

Date: 30/03/23

Note: Not all data layers in the legend are represented on every map.



- Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Land potentially required during construction
 - Community area boundary
 - County boundary
 - District/Borough boundary
 - Licensed surface water abstraction (excluding public water supplies)
 - Unlicensed private surface water abstraction
 - Consented discharge to surface water
 - Airport
 - Watercourse
 - Culverted watercourse
 - Canal
 - Canal tunnel
 - Lakes & Reservoirs
 - Historic flooding area

- Fluvial flood risk:**
- Flood Zone 2
 - Flood Zone 3

- Risk of Flooding from Surface Water:**
- High - chance of flooding greater than 1 in 30 (3.33%)
 - Medium - chance of flooding between 1 in 100 (1%) and 1 in 30 (3.33%)
 - Low - chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)

Map Number: WR-01-304b

Map Name: Surface Water Baseline SES2 and AP2 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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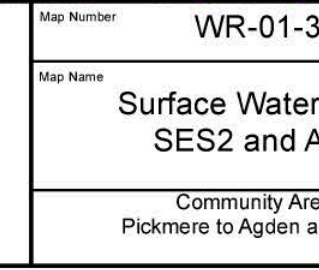
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Date: 30/03/23

For continuation refer to map number: WR-01-303a

For continuation refer to map number: WR-01-305a

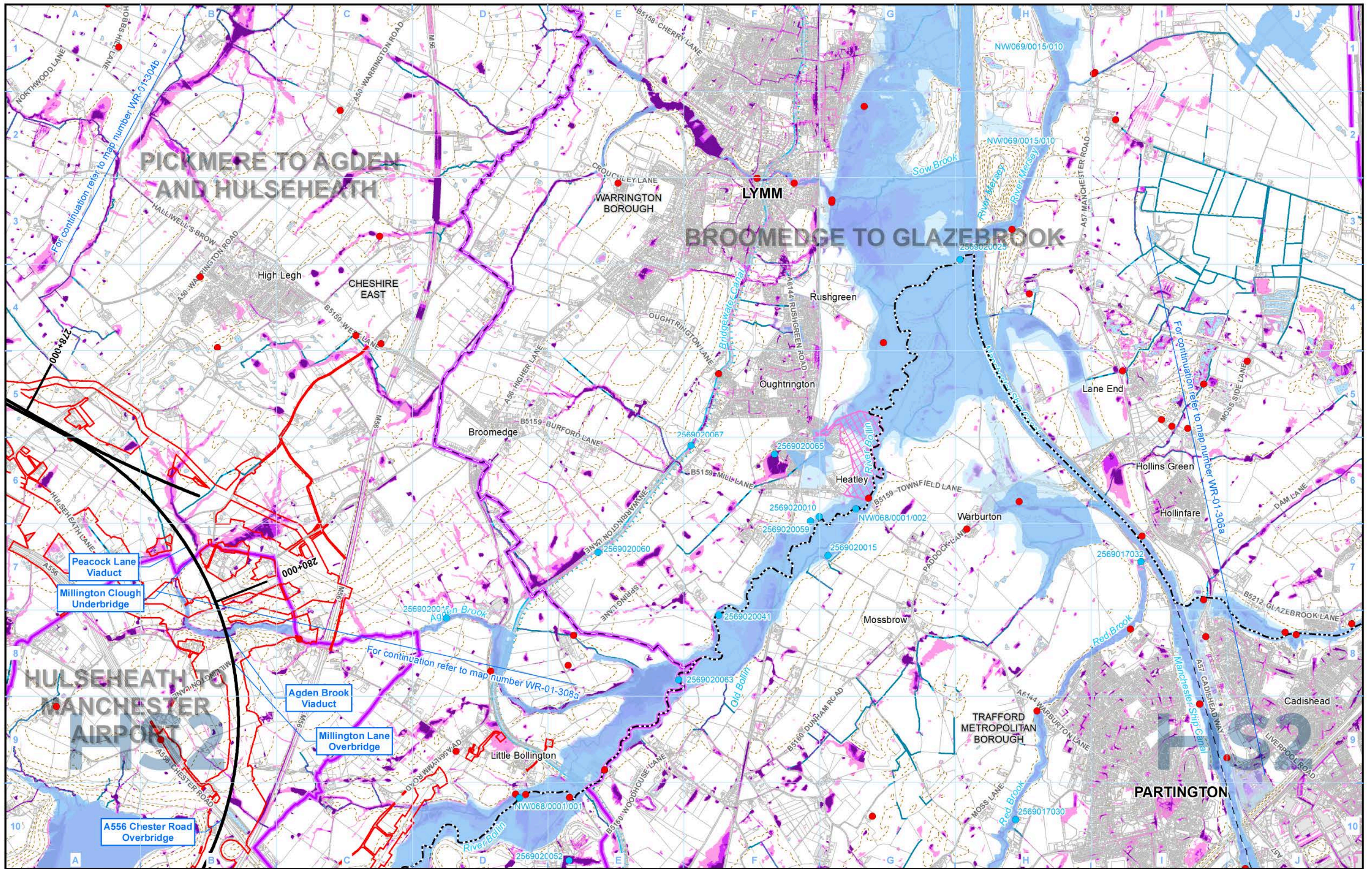
For continuation refer to map number: WR-01-308a



Scale at A3: 1:25,000

Metres

Date: 30/03/23



- Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Land potentially required during construction
 - Community area boundary
 - County boundary
 - District/Borough boundary

- Licensed surface water abstraction (excluding public water supplies)
- Unlicensed private surface water abstraction
- Consented discharge to surface water
- Airport

- Watercourse
- Culverted watercourse
- Canal
- Canal tunnel
- Lakes & Reservoirs
- Historic flooding area

- Fluvial flood risk:**
- Flood Zone 2
 - Flood Zone 3

- Risk of Flooding from Surface Water:**
- High - chance of flooding greater than 1 in 30 (3.33%)
 - Medium - chance of flooding between 1 in 100 (1%) and 1 in 30 (3.33%)
 - Low - chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)

Map Number: **WR-01-305a**

Map Name: **Surface Water Baseline SES2 and AP2 ES**

Community Area MA03: Pickmere to Agden and Hulseheath

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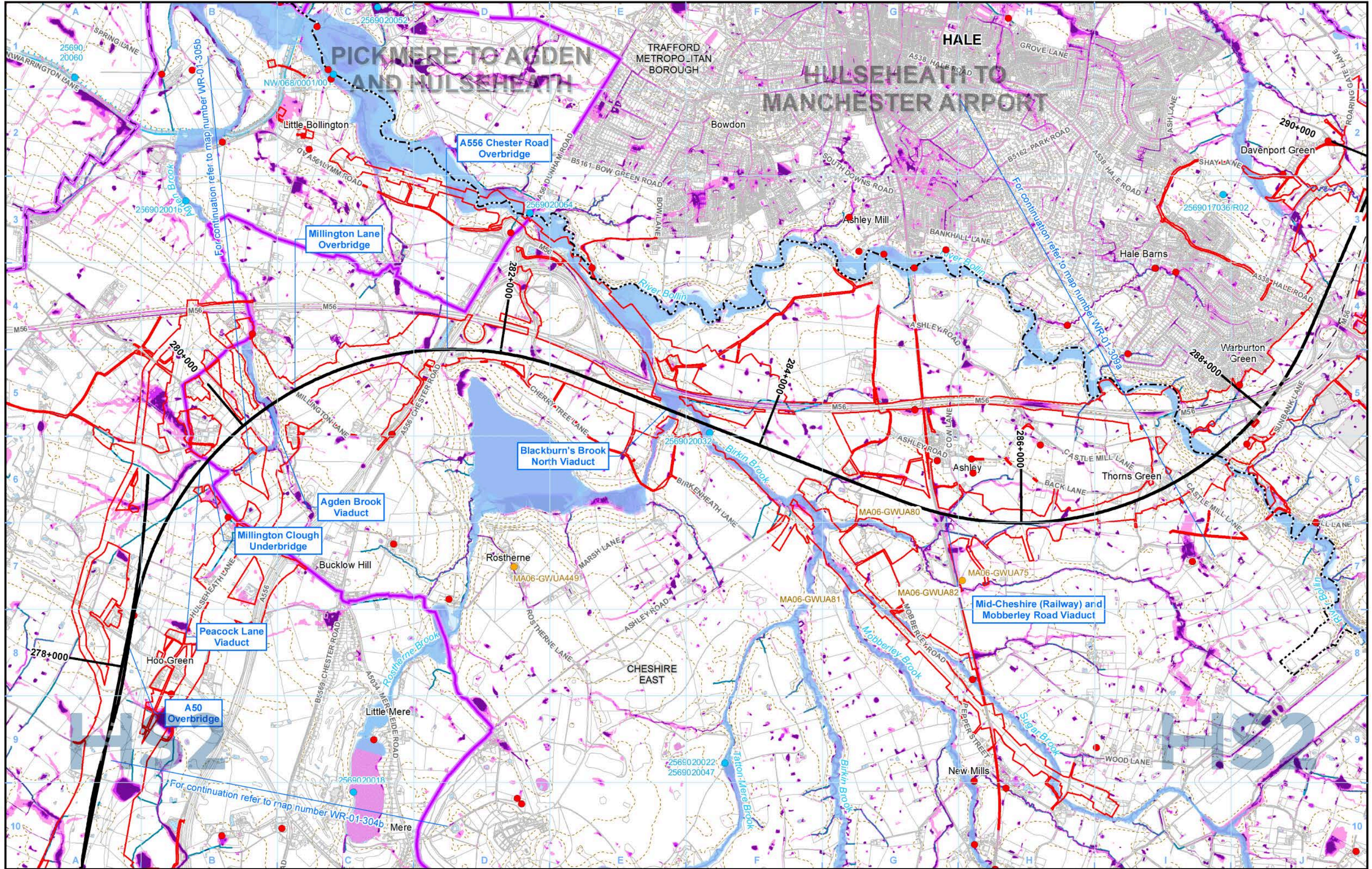
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Doc Number: 2PT27-MWJ-EV-MAP-M000-000297-P01

Date: 30/03/23

Scale at A3: 1:25,000

Metros



- Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Land potentially required during construction
 - Community area boundary
 - County boundary
 - District/Borough boundary
 - Licensed surface water abstraction (excluding public water supplies)
 - Unlicensed private surface water abstraction
 - Consented discharge to surface water
 - Airport
 - Watercourse
 - Culverted watercourse
 - Canal
 - Canal tunnel
 - Lakes & Reservoirs
 - Historic flooding area
 - Fluvial flood risk:
 - Flood Zone 2
 - Flood Zone 3
 - Risk of Flooding from Surface Water:
 - High - chance of flooding greater than 1 in 30 (3.33%)
 - Medium - chance of flooding between 1 in 100 (1%) and 1 in 30 (3.33%)
 - Low - chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)

Map Number: WR-01-308a

Map Name: Surface Water Baseline SES2 and AP2 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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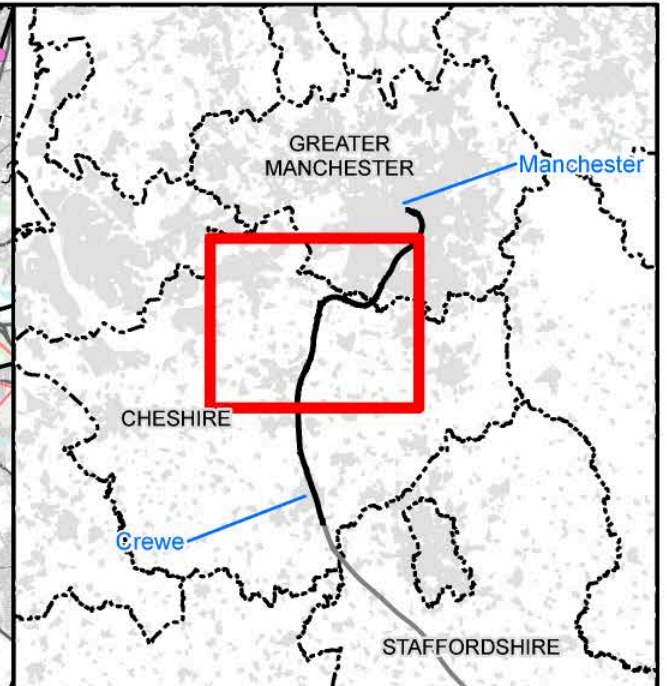
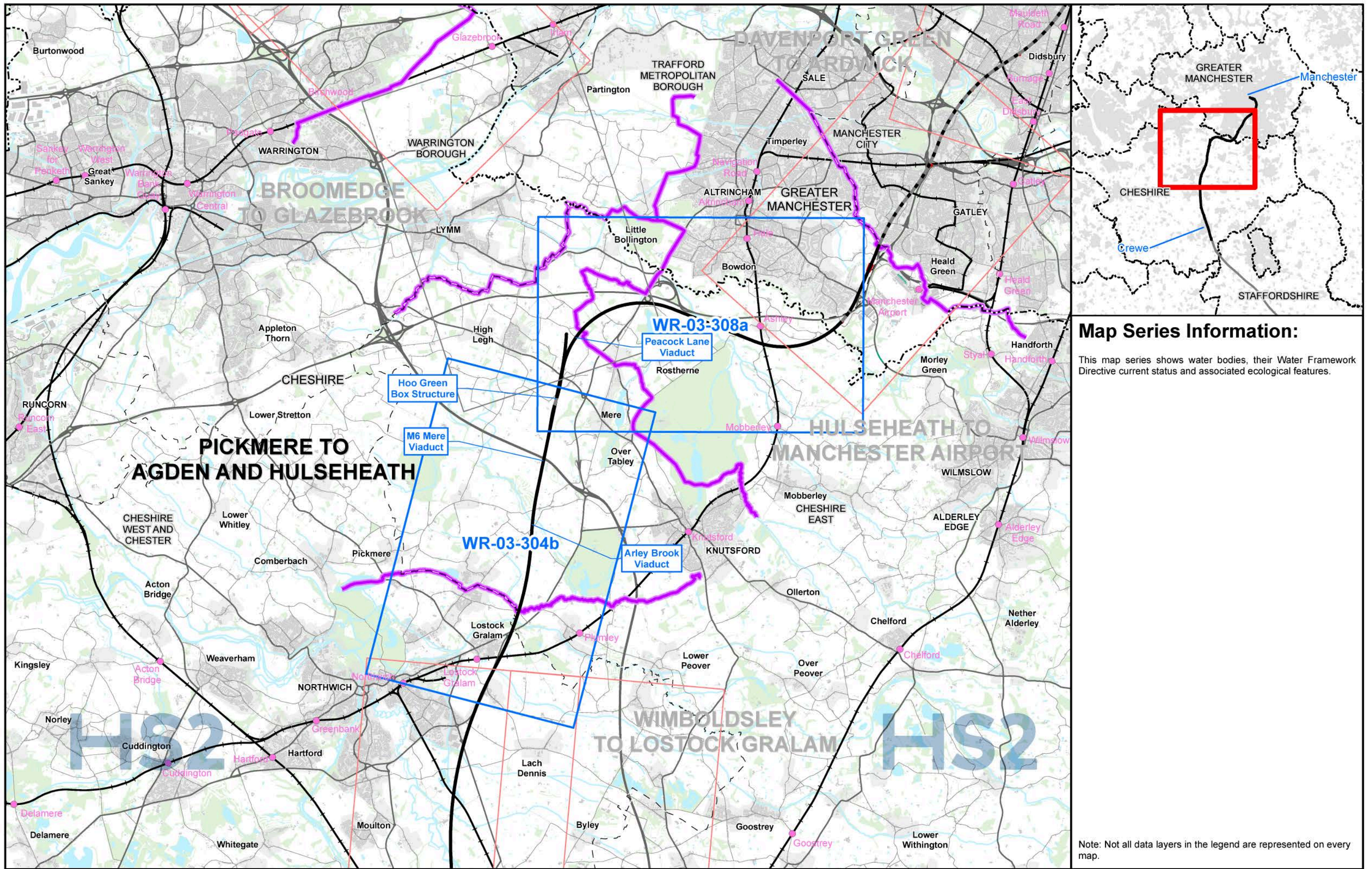
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Doc Number: 2PT27-MWJ-EV-MAP-M000-000302-P01

Date: 30/03/23

Scale at A3: 1:25,000

0 250 500 750 1000 Metres



Map Series Information:
 This map series shows water bodies, their Water Framework Directive current status and associated ecological features.

- Main Map Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Community area boundary
 - Existing railway station
 - County boundary
 - District/Borough boundary
 - Map sheets included in this community area
 - Map sheets included in this community with no amendment
 - Map sheets not included in this community area

Map Number: **WR-03-INDEX-MA03**
 Map Name: **Index Map of:
 Water Framework Directive
 SES2 and AP2 ES
 Community Area MA03:
 Pickmere to Agden and Hulseheath**

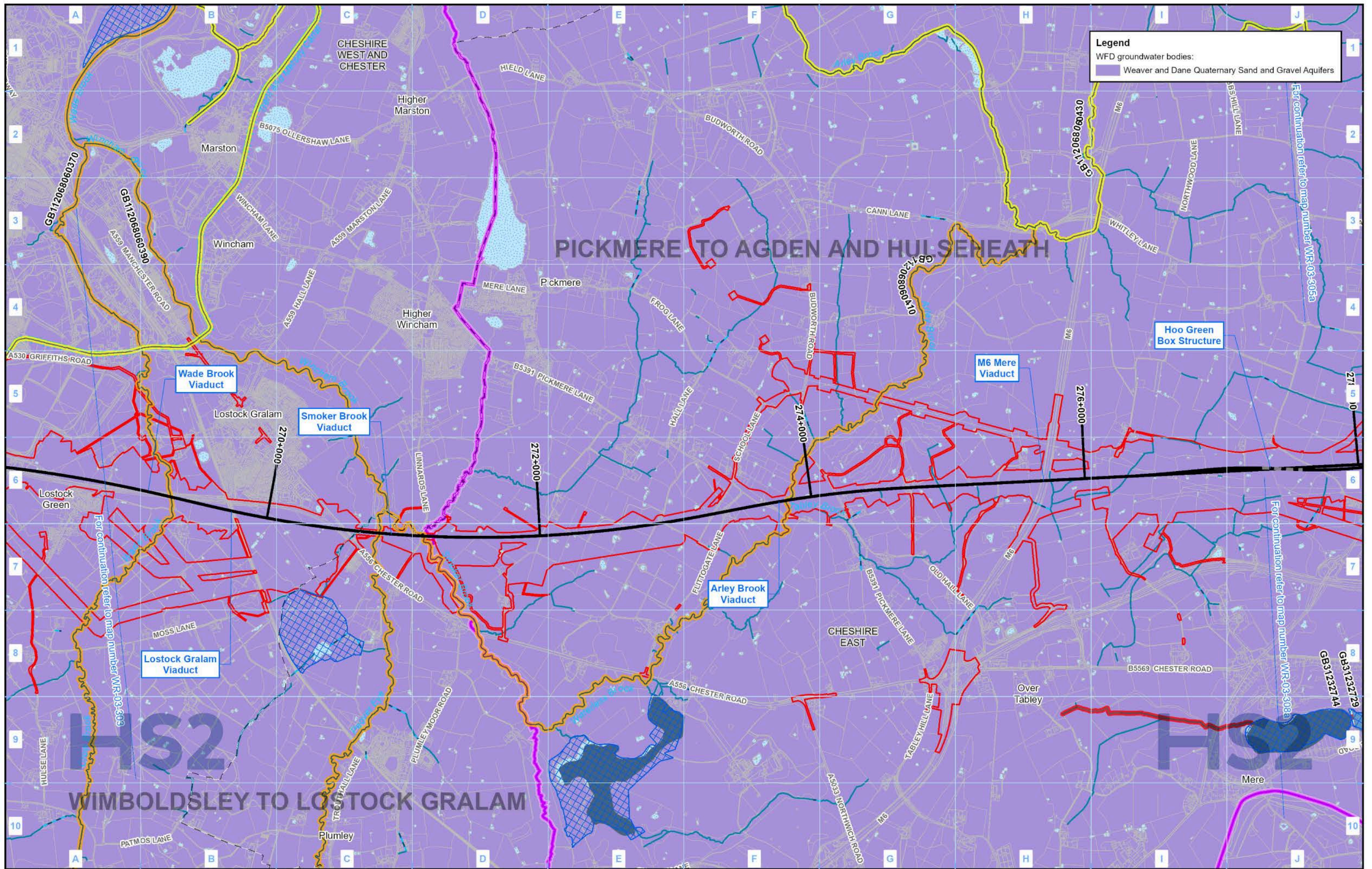
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002277-P01 **Date: 11/04/23**



Legend
 WFD groundwater bodies:
 Weaver and Dane Quaternary Sand and Gravel Aquifers

Legend

- Route in tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Land potentially required during construction
- Community area boundary
- County boundary
- District/Borough boundary
- Canal
- Canal tunnel
- Watercourse
- Culverted watercourse
- Lakes & Reservoirs
- Airport

WFD Surface Water Bodies
 Overall Status Classification (2015 RBMP Cycle 2):

- Good
- Moderate
- Poor
- Bad

WFD Lakes
 Overall Status:

- Good
- Moderate
- Poor
- Bad

Special Areas of Conservation (SAC)
 Sites of Special Scientific Interest (SSSI)

Map Number: WR-03-304b
 Map Name: Water Framework Directive SES2 and AP2 ES
 Community Area MA03: Pickmere to Agden and Hulseheath

HS2

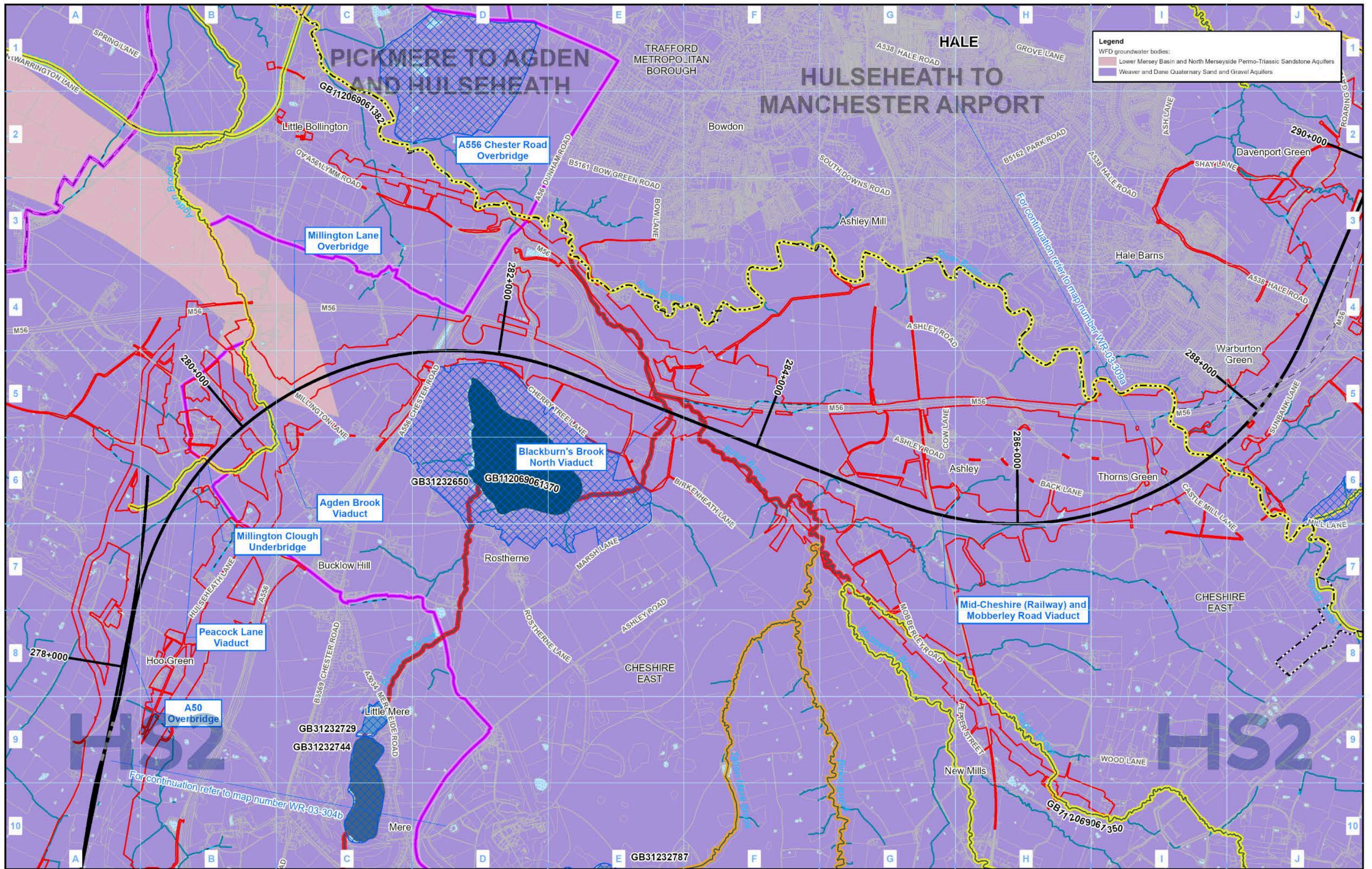
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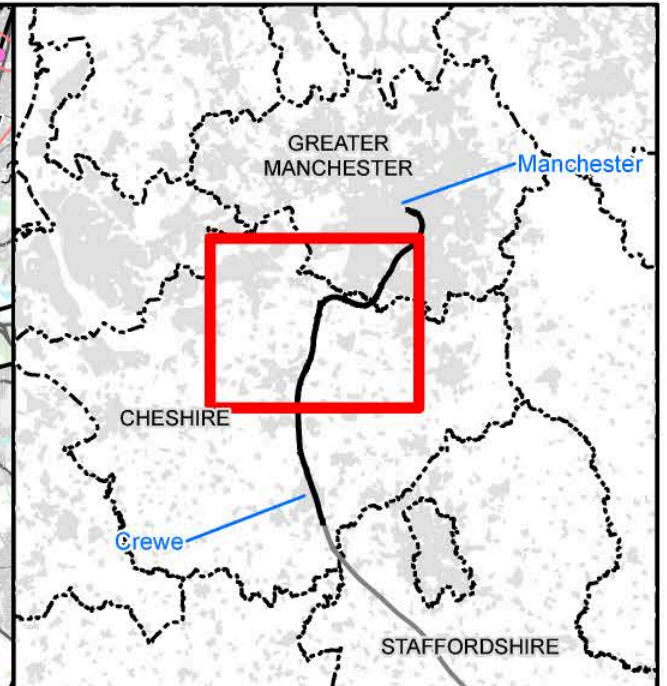
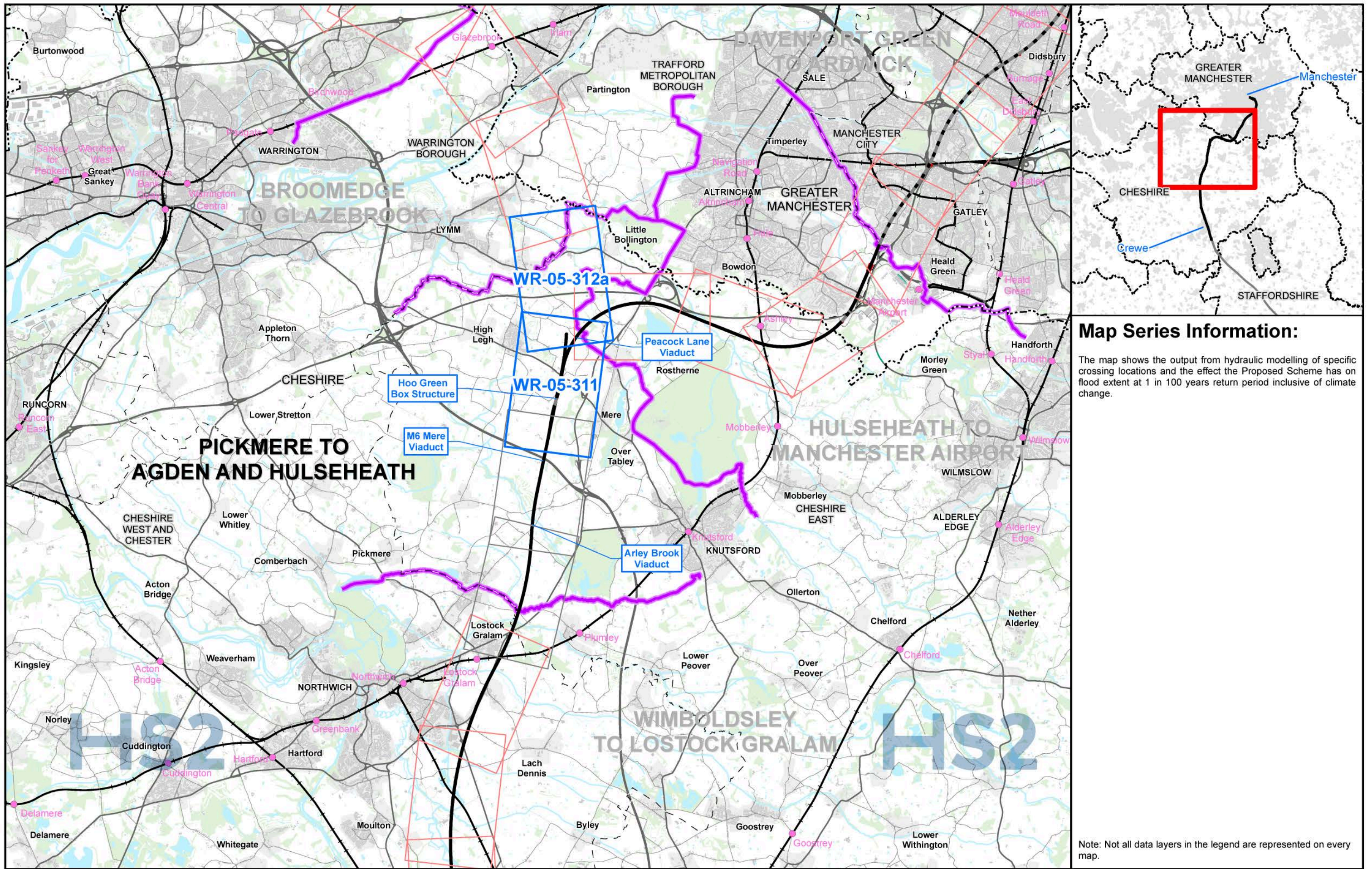
Date: 11/04/23



Legend
 WFD groundwater bodies:
 Lower Mersey Basin and North Merseyside Permo-Triassic Sandstone Aquifers
 Weaver and Dane Quaternary Sand and Gravel Aquifers

<p>Legend</p> <ul style="list-style-type: none"> Route in tunnel Route on surface Depot, station, headhouse or portal building Land potentially required during construction Community area boundary County boundary District/Borough boundary 	<ul style="list-style-type: none"> Canal Canal tunnel Watercourse Culverted watercourse Lakes & Reservoirs Airport 	<p>WFD Surface Water Bodies Overall Status Classification (2015 RBMP Cycle 2):</p> <ul style="list-style-type: none"> Good Moderate Poor Bad 	<p>WFD Lakes Overall Status:</p> <ul style="list-style-type: none"> Good Moderate Poor Bad 	<ul style="list-style-type: none"> Special Areas of Conservation (SAC) Sites of Special Scientific Interest (SSSI) 	<p>Map Number: WR-03-308a</p> <p>Map Name: Water Framework Directive SES2 and AP2 ES</p> <p>Community Area MA03: Pickmere to Agden and Hulseheath</p>	<p>HS2</p> <p>HS2 Ltd accept no responsibility for any circumstances, which arise from the reproduction of this map after alteration, amendment or abbreviation or if it is issued in part or issued incomplete in any way.</p> <p>Registered in England: Registration number 06791686. Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.</p> <p>© Crown copyright and database rights 2022 OS 100049190</p> <p>Doc Number: 2PT27-MWJ-EV-MAP-M000-002266-P01</p> <p>Date: 11/04/23</p> <p>Scale at A3: 1:25,000</p>
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Map Series Information:

The map shows the output from hydraulic modelling of specific crossing locations and the effect the Proposed Scheme has on flood extent at 1 in 100 years return period inclusive of climate change.

Main Map Legend

	Route in tunnel		Map sheets included in this community area
	Route on surface		Map sheets included in this community with no amendment
	Depot, station, headhouse or portal building		Map sheets not included in this community area
	Community area boundary		
	Existing railway station		
	County boundary		
	District/Borough boundary		

Map Number	WR-05-INDEX-MA03
Map Name	Index Map of: Modelled Baseline and Post Development Flood Extent 1 in 100 including Climate Change (1%+CC) Annual Probability of River Flooding SES2 and AP2 ES Community Area MA03: Pickmere to Agden and Hulseheath

HS2

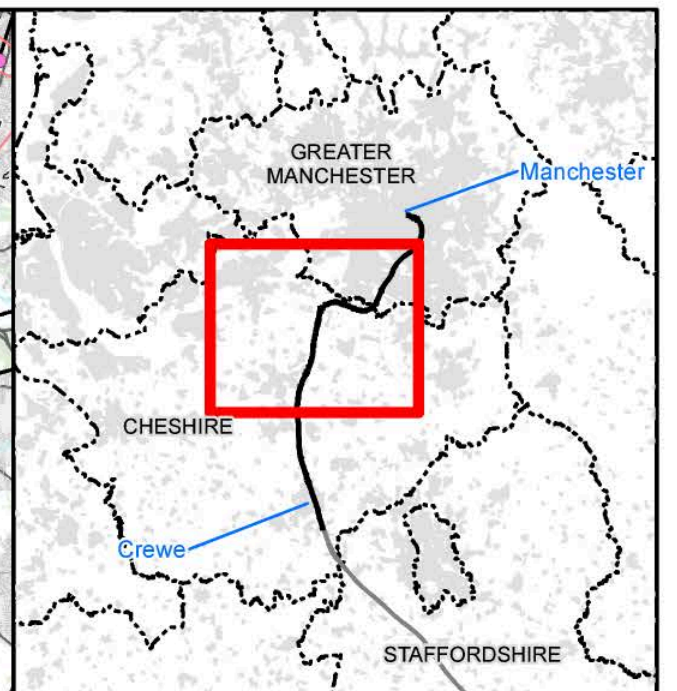
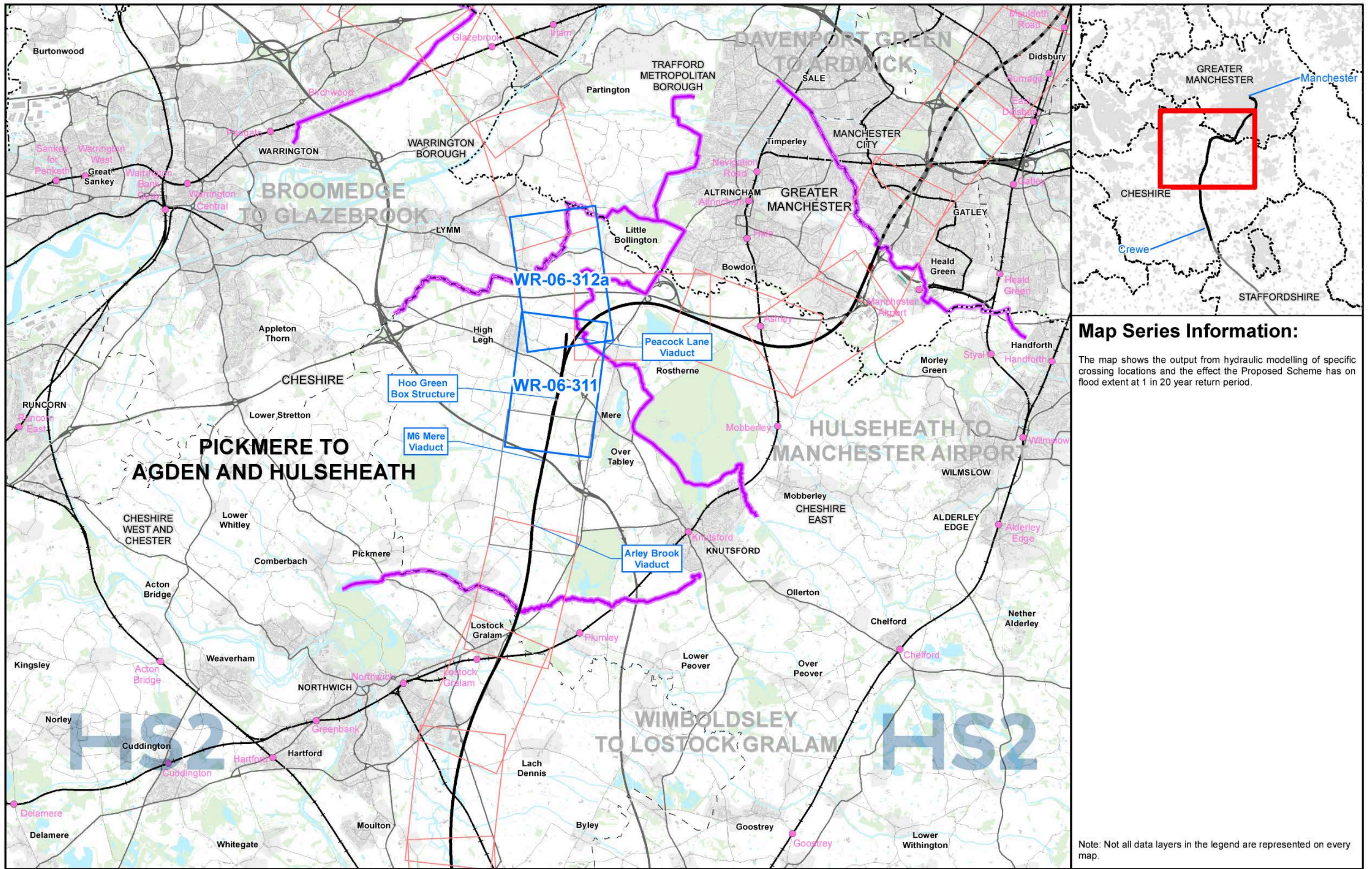
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Date: 31/03/23



Map Series Information:

The map shows the output from hydraulic modelling of specific crossing locations and the effect the Proposed Scheme has on flood extent at 1 in 20 year return period.

Main Map Legend

	Route in tunnel		Map sheets included in this community area
	Route on surface		Map sheets included in this community with no amendment
	Depot, station, headhouse or portal building		Map sheets not included in this community area
	Community area boundary		
	Existing railway station		
	County boundary		
	District/Borough boundary		

Map Number	WR-06-INDEX-MA03
Map Name	Index Map of: Modelled Baseline and Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding SES2 and AP2 ES Community Area MA03: Pickmere to Agden and Hulseheath

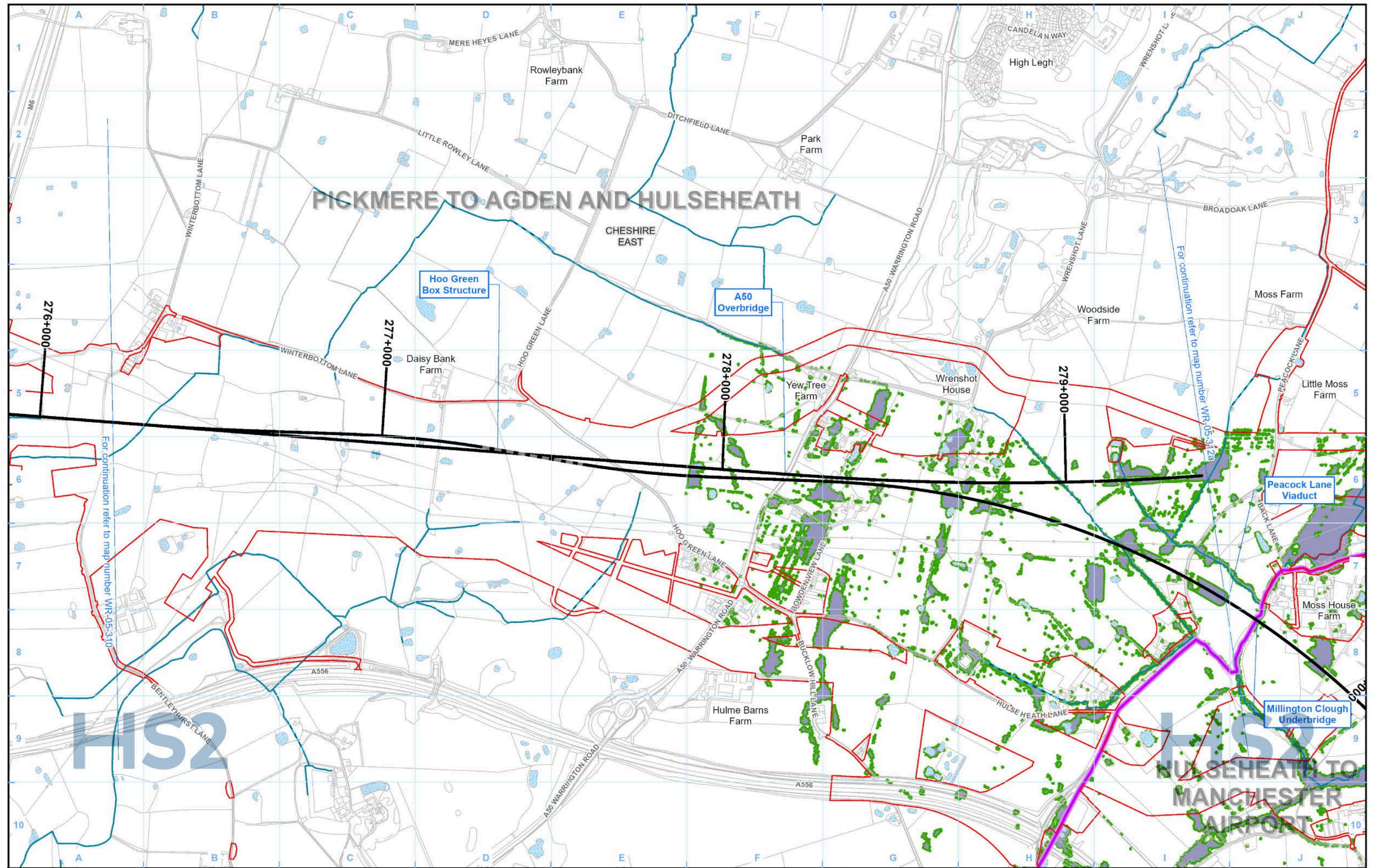
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002369-P01 Date: 30/03/23



Legend

Modelling Baseline Flood Extent 1 in 100 (1%+CC) including Climate Change (UKCP18) Annual Probability of River Flooding

Modelling Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change (UKCP18) Annual Probability of River Flooding

Map Number	WR-05-311
Map Name	Modelled Baseline and Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change Annual Probability of River Flooding SES2 and AP2 ES
Community Area MA03: Pickmere to Agden and Hulseheath	

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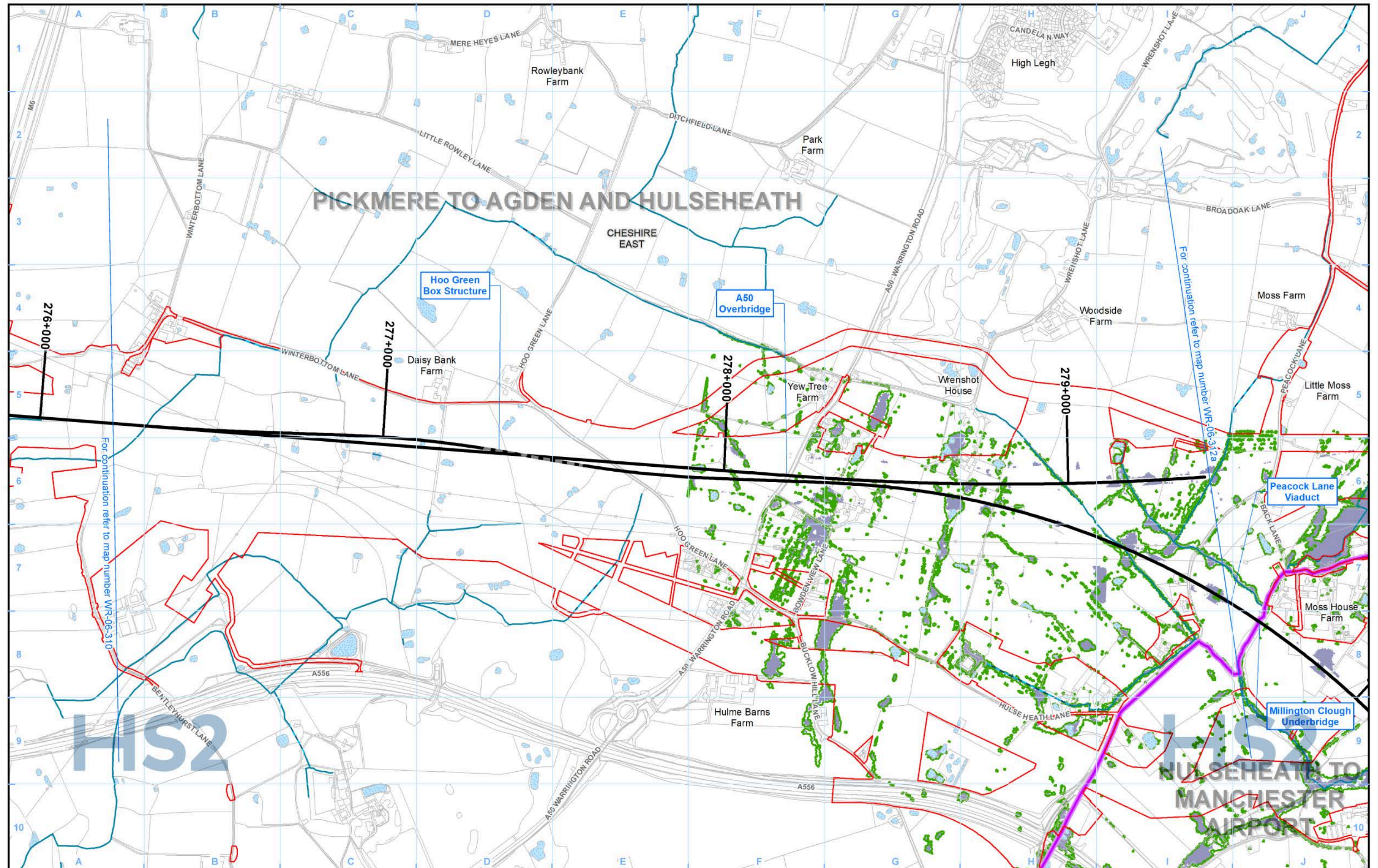
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002298-P01

Date: 31/03/23

Scale at A3: 1:10,000


Metres



- Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Land potentially required during construction
 - Community area boundary
 - County boundary
 - District/Borough boundary
 - Watercourse
 - Culverted watercourse
 - Canal
 - Canal tunnel
 - Open water
 - Modelled Baseline Flood Extent 1 in 20 (5%) Annual Probability of River Flooding
 - Modelled Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding

Map Number: **WR-06-311**

Map Name: **Modelled Baseline and Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding SES2 and AP2 ES Community Area MA03: Pickmere to Agden and Hulseheath**

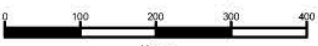


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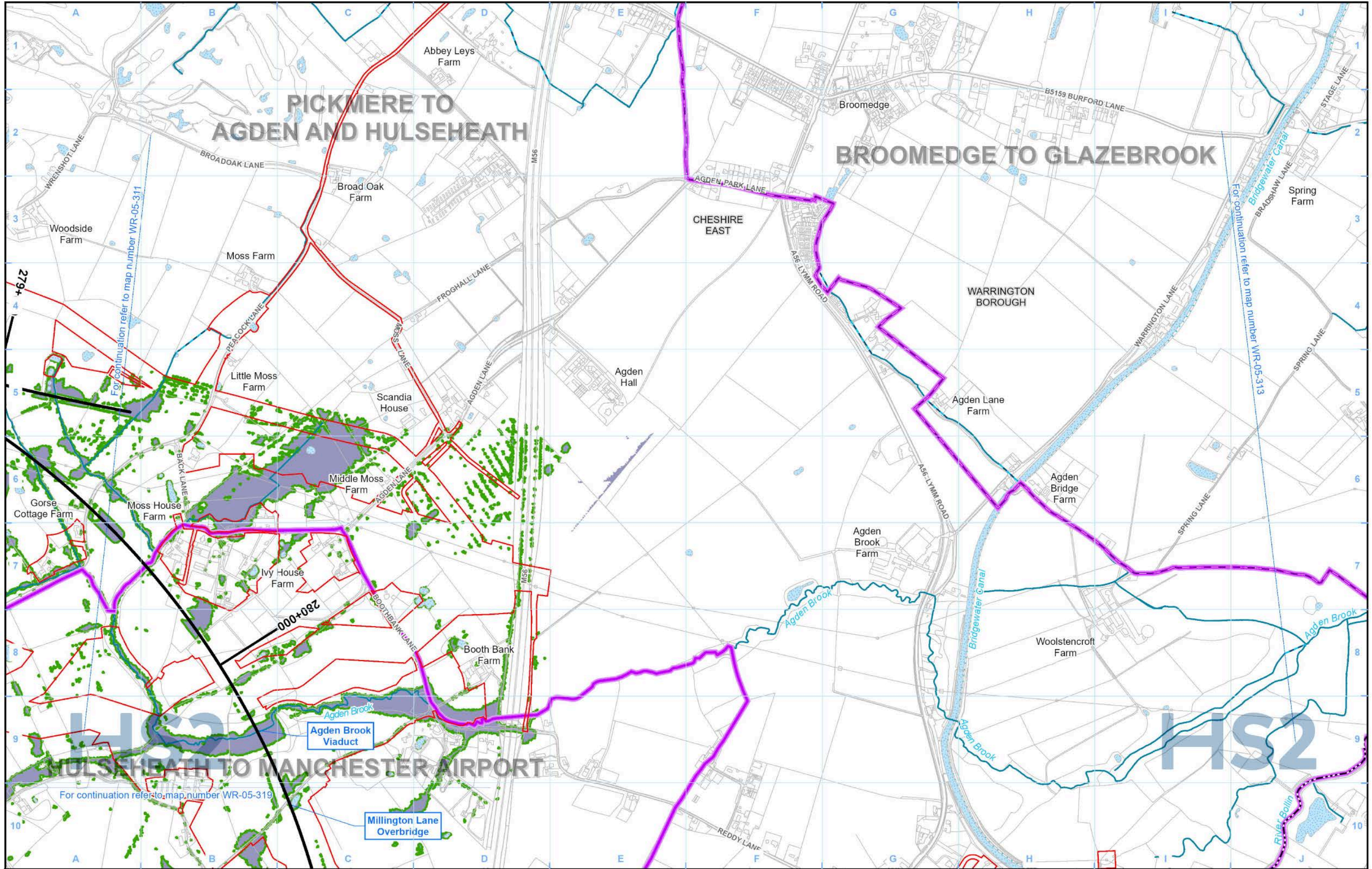
Metres



Date: 30/03/23

PICKMERE TO AGDEN AND HULSEHEATH

BROOMEDGE TO GLAZE BROOK



Legend

Route in tunnel	Watercourse	Modelled Baseline Flood Extent 1 in 100 (1%+CC) including Climate Change (UKCP18) Annual Probability of River Flooding
Route on surface	Culverted watercourse	Modelled Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change (UKCP18) Annual Probability of River Flooding
Depot, station, headhouse or portal building	Canal	Open water
Land potentially required during construction	Canal tunnel	
Community area boundary		
County boundary		
District/Borough boundary		

For continuation refer to map number WR-05-311

For continuation refer to map number WR-05-313

For continuation refer to map number WR-05-319

279+

000+000

280+000

Map Number: WR-05-312a

Map Name: Modelled Baseline and Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change Annual Probability of River Flooding SES2 and AP2 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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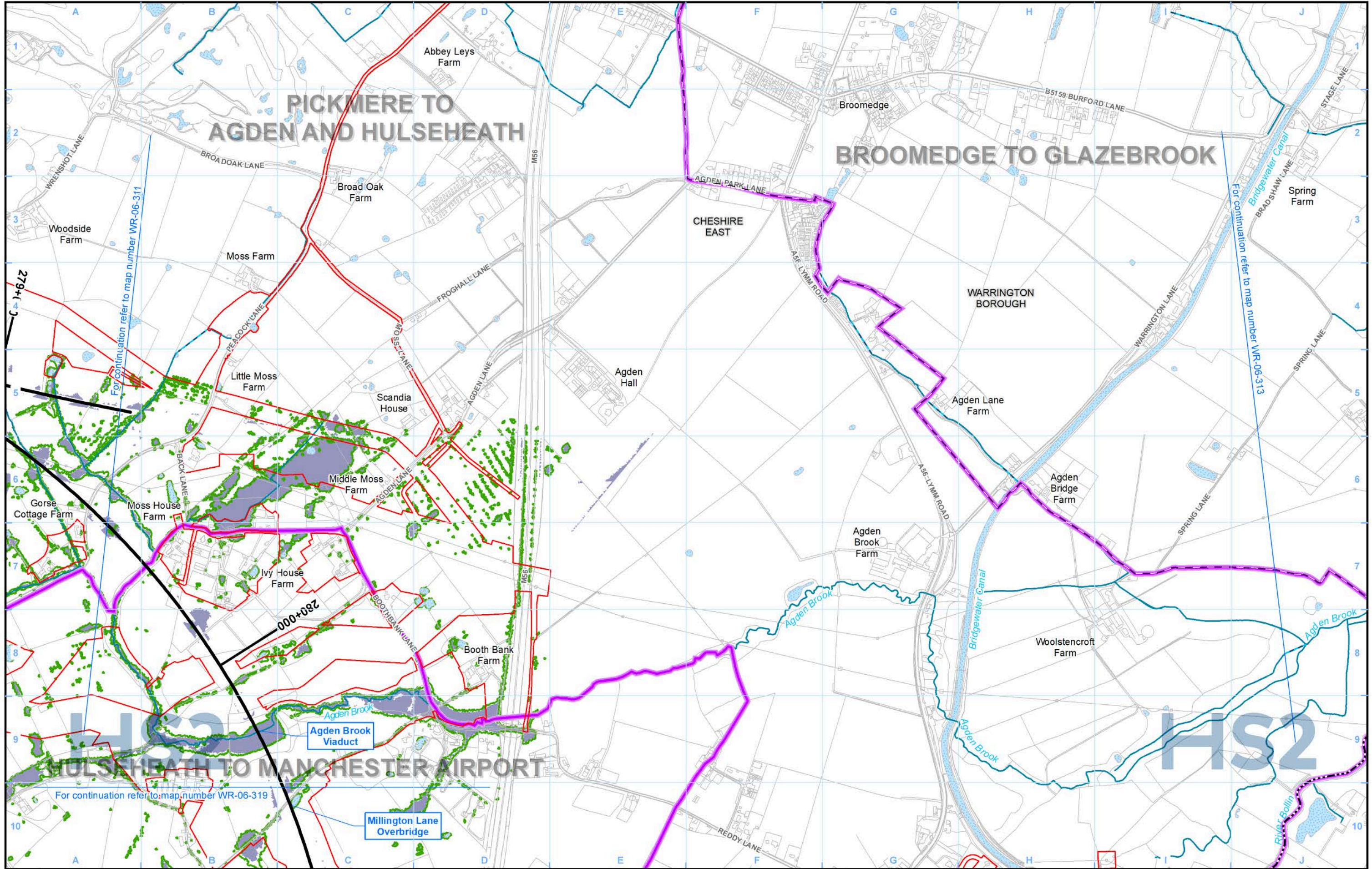
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002299-P01

Date: 31/03/23

Scale at A3: 1:10,000

Metres



Legend

Route in tunnel	Watercourse	Modelled Baseline Flood Extent 1 in 20 (5%) Annual Probability of River Flooding
Route on surface	Culverted watercourse	Modelled Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding
Depot, station, headhouse or portal building	Canal	Open water
Land potentially required during construction	Canal tunnel	
Community area boundary		
County boundary		
District/Borough boundary		

Map Number: WR-06-312a

Map Name: Modelled Baseline and Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding SES2 and AP2 ES Community Area MA03: Pickmere to Agden and Hulseheath

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Date: 30/03/23

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0 100 200 300 400 Metres

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High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

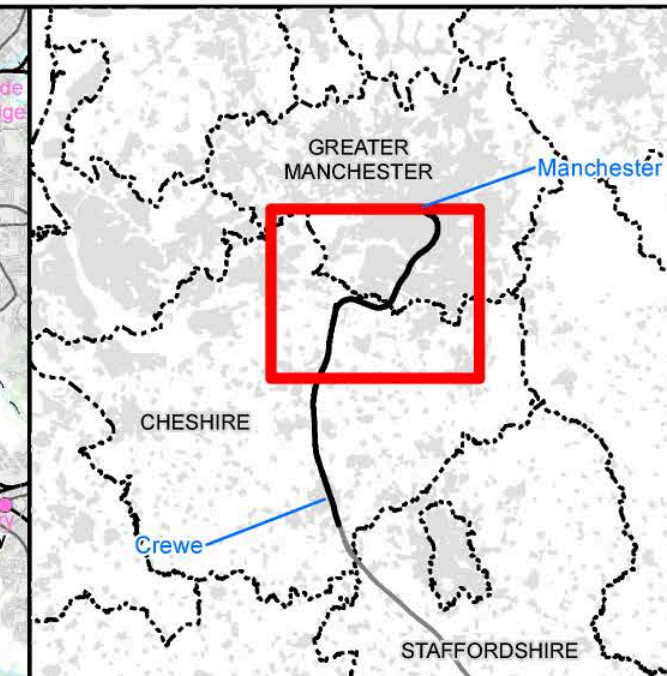
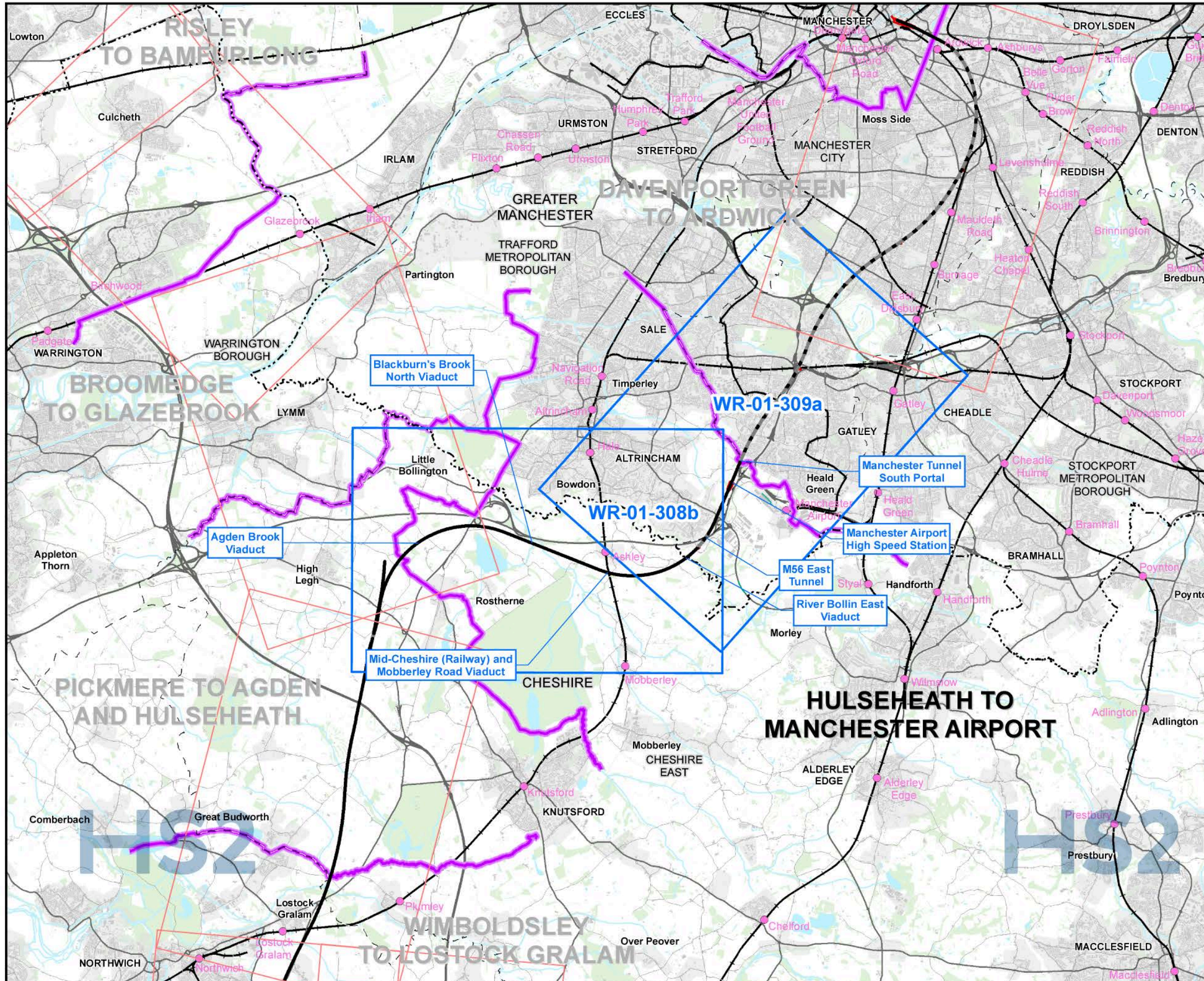
MA06: Hulseheath to Manchester Airport

WR-01 - Surface Water Baseline

WR-03 - Water Framework Directive

WR-05 - Modelled Baseline and Post Development Flood Extent 1 in 100 (1%CC) including Climate Change Annual Probability of River Flooding

WR-06 - Modelled Baseline and Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding



Map Series Information:

This map series shows surface water features such as rivers, streams, ponds, canals and reservoirs, flood zones, and surface water abstractions. The design of the Proposed Scheme will be informed through stakeholder engagement and further engineering and environmental studies.

- Main Map Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Community area boundary
 - Existing railway station
 - County boundary
 - District/Borough boundary
 - Map sheets included in this community area
 - Map sheets included in this community with no amendment
 - Map sheets not included in this community area

Map Number: WR-01-INDEX-MA06

Map Name: Index Map of: Surface Water Baseline SES2 and AP2 ES

Community Area MA06: Hulseheath to Manchester Airport

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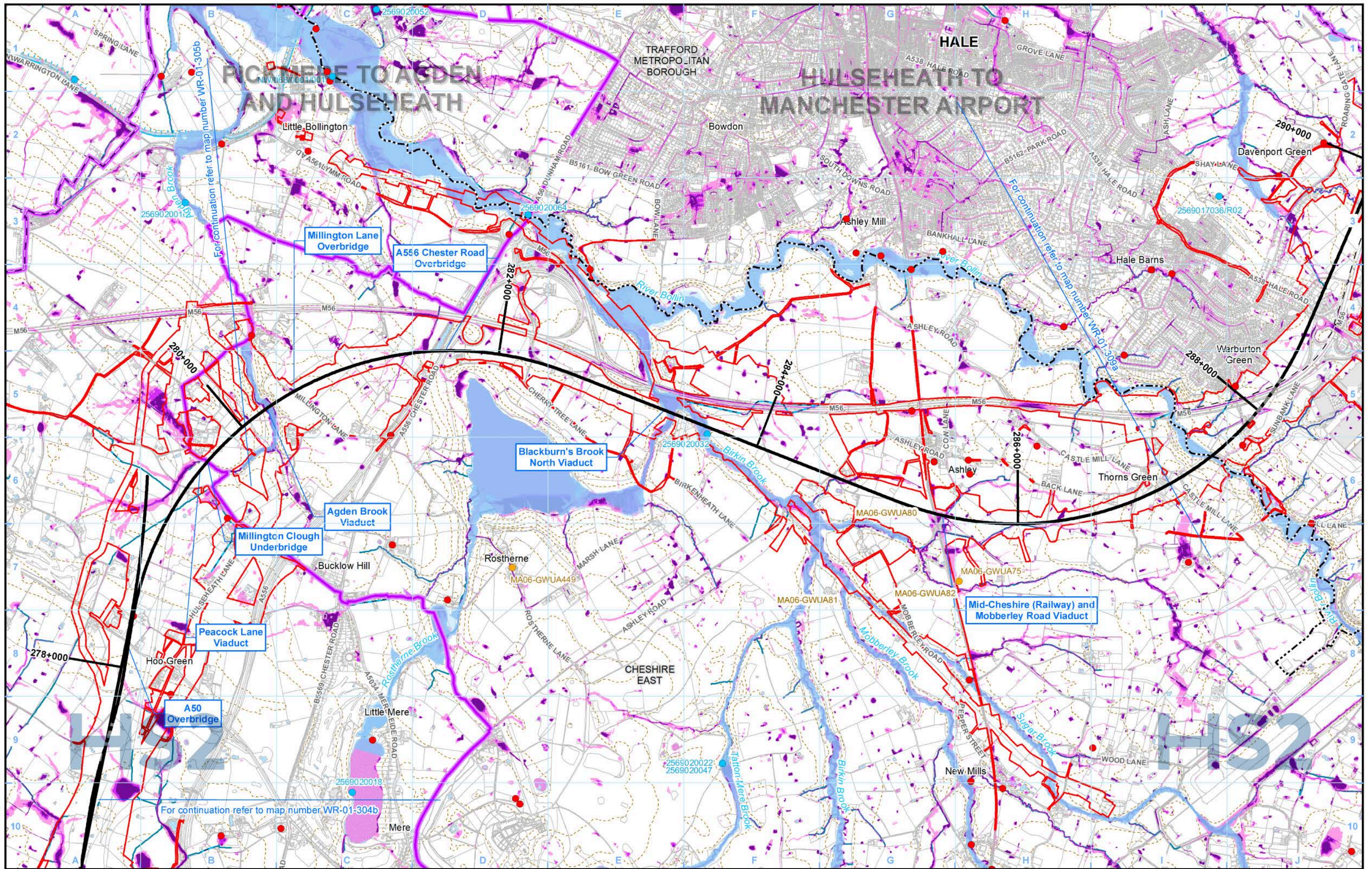
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Doc Number: 2PT27-MWJ-EV-MAP-M000-000182-P01

Date: 30/03/23

Note: Not all data layers in the legend are represented on every map.



- Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Land potentially required during construction
 - Community area boundary
 - County boundary
 - District/Borough boundary

- Licensed surface water abstraction (excluding public water supplies)
- Unlicensed private surface water abstraction
- Consented discharge to surface water
- Airport
- Watercourse
- Culverted watercourse
- Canal
- Canal tunnel
- Lakes & Reservoirs
- Historic flooding area

- Fluvial flood risk:**
- Flood Zone 2
 - Flood Zone 3
- Risk of Flooding from Surface Water:**
- High - chance of flooding greater than 1 in 30 (3.33%)
 - Medium - chance of flooding between 1 in 100 (1%) and 1 in 30 (3.33%)
 - Low - chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)

Map Number: WR-01-308b

Map Name: Surface Water Baseline SES2 and AP2 ES

Community Area MA06: Hulseheath to Manchester Airport

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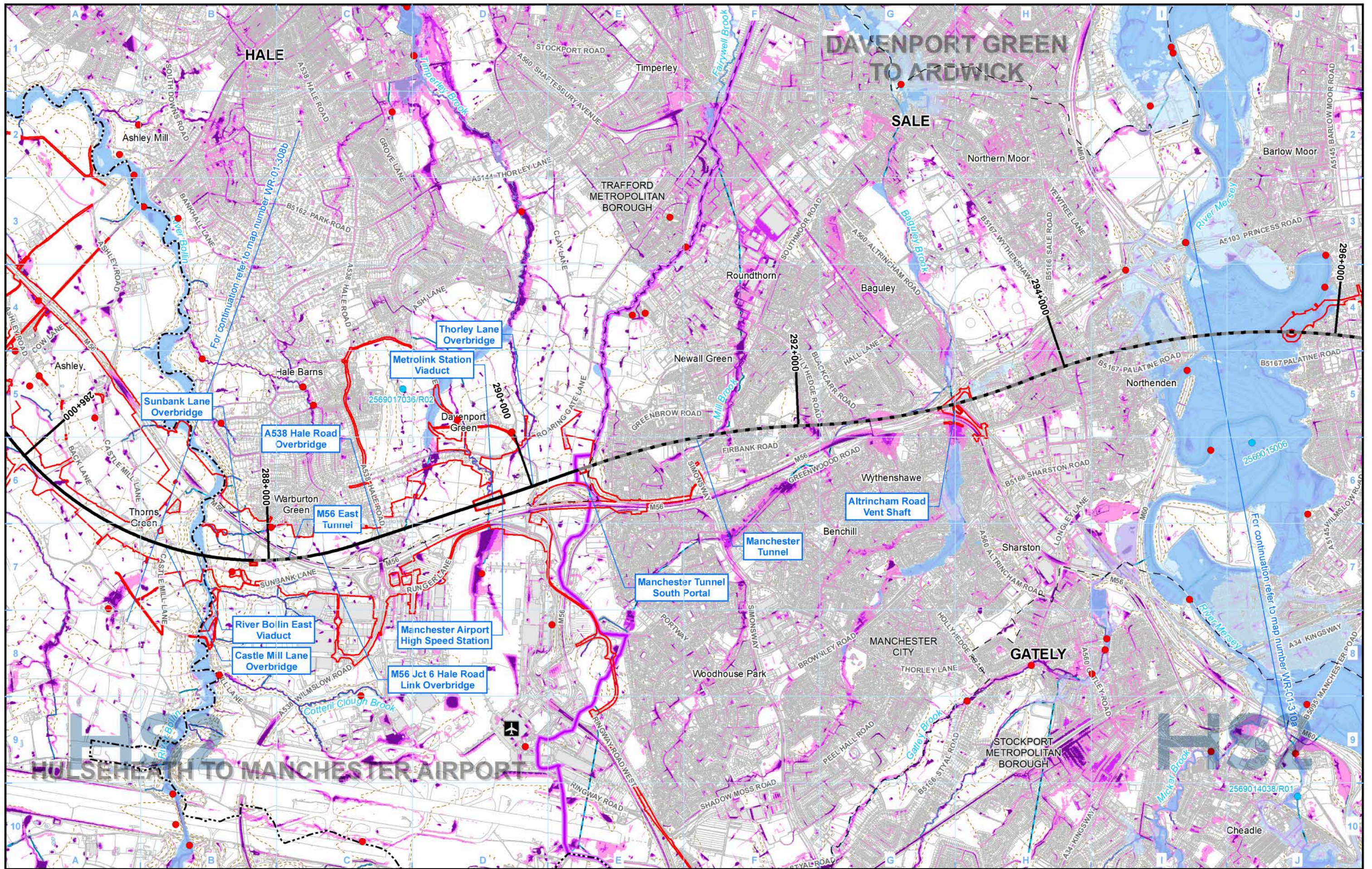
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Doc Number: 2PT27-MWJ-EV-MAP-M000-000248-P01

Date: 30/03/23

Scale at A3: 1:25,000

0 250 500 750 1000 Metres



Legend

	Route in tunnel		Licensed surface water abstraction (excluding public water supplies)		Watercourse		Fluvial flood risk: Flood Zone 2		High - chance of flooding greater than 1 in 30 (3.33%)
	Route on surface		Unlicensed private surface water abstraction		Culverted watercourse		Flood Zone 3		Medium - chance of flooding between 1 in 100 (1%) and 1 in 30 (3.33%)
	Depot, station, headhouse or portal building		Consented discharge to surface water		Canal				Low - chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)
	Land potentially required during construction		Airport		Canal tunnel				
	Community area boundary				Lakes & Reservoirs				
	County boundary				Historic flooding area				
	District/Borough boundary								

Map Number: WR-01-309a

Map Name: Surface Water Baseline SES2 and AP2 ES

Community Area MA06: Hulseheath to Manchester Airport

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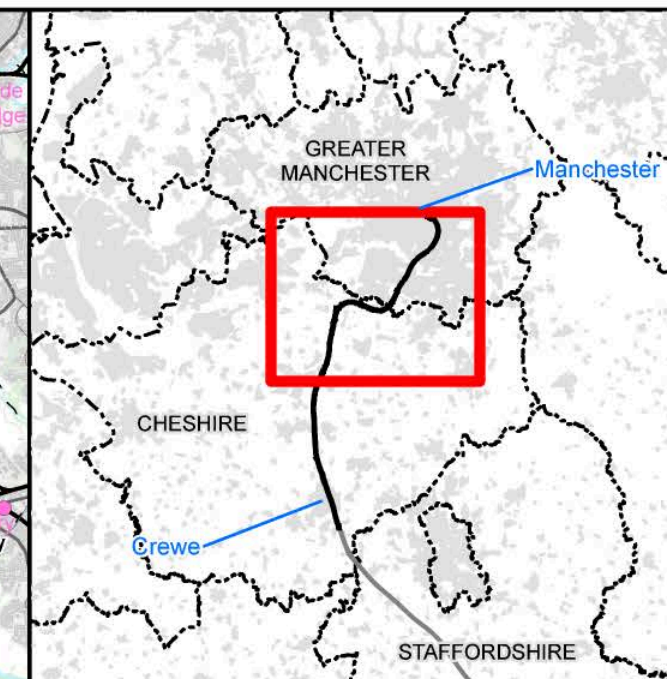
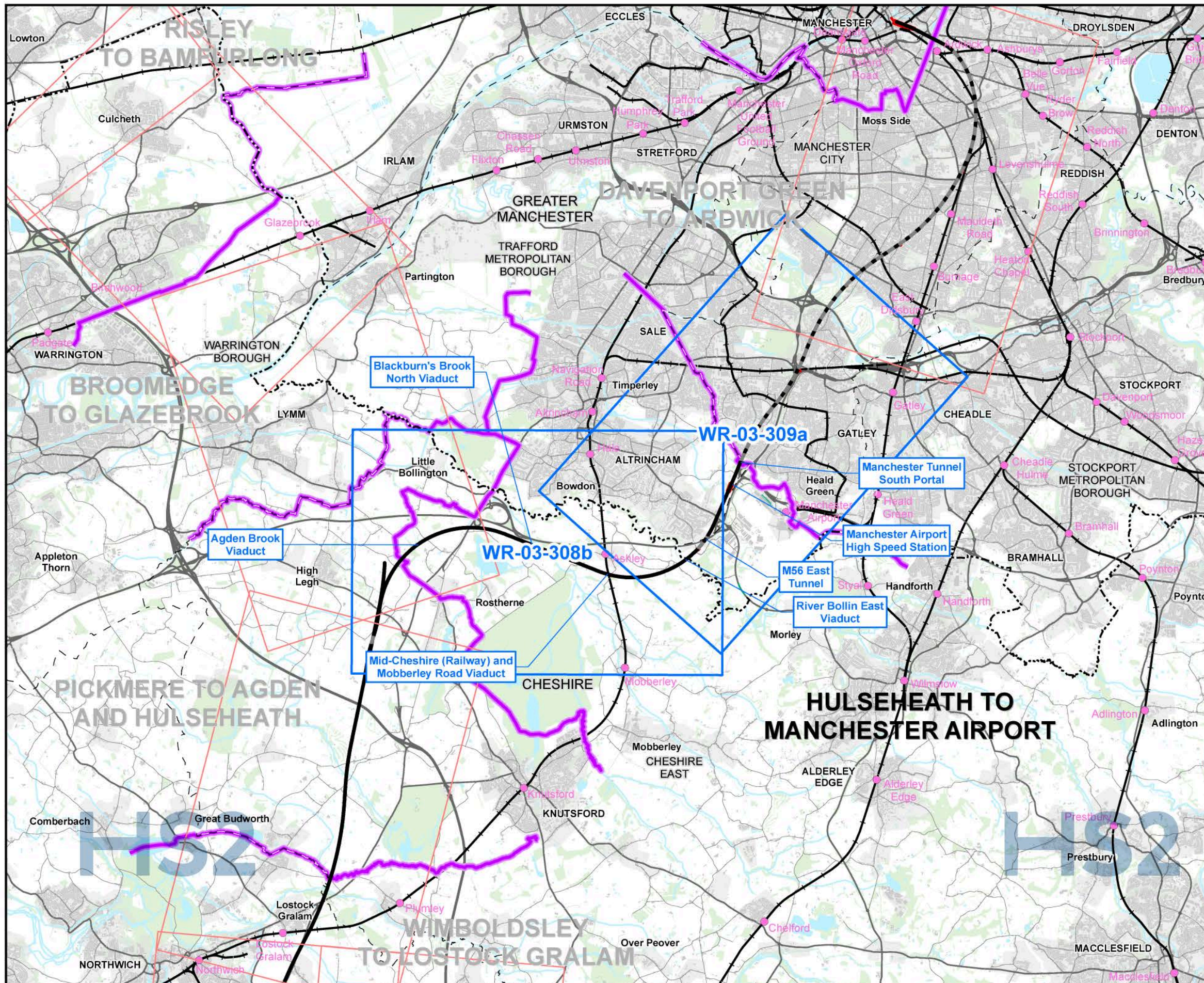
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Scale at A3: 1:25,000

Date: 30/03/23



Map Series Information:
 This map series shows water bodies, their Water Framework Directive current status and associated ecological features.

Main Map Legend

- Route in tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Community area boundary
- Existing railway station
- County boundary
- District/Borough boundary
- Map sheets included in this community area
- Map sheets included in this community with no amendment
- Map sheets not included in this community area

Map Number **WR-03-INDEX-MA06**
 Map Name **Index Map of:
 Water Framework Directive
 SES2 and AP2 ES
 Community Area MA06:
 Hulseheath to Manchester Airport**

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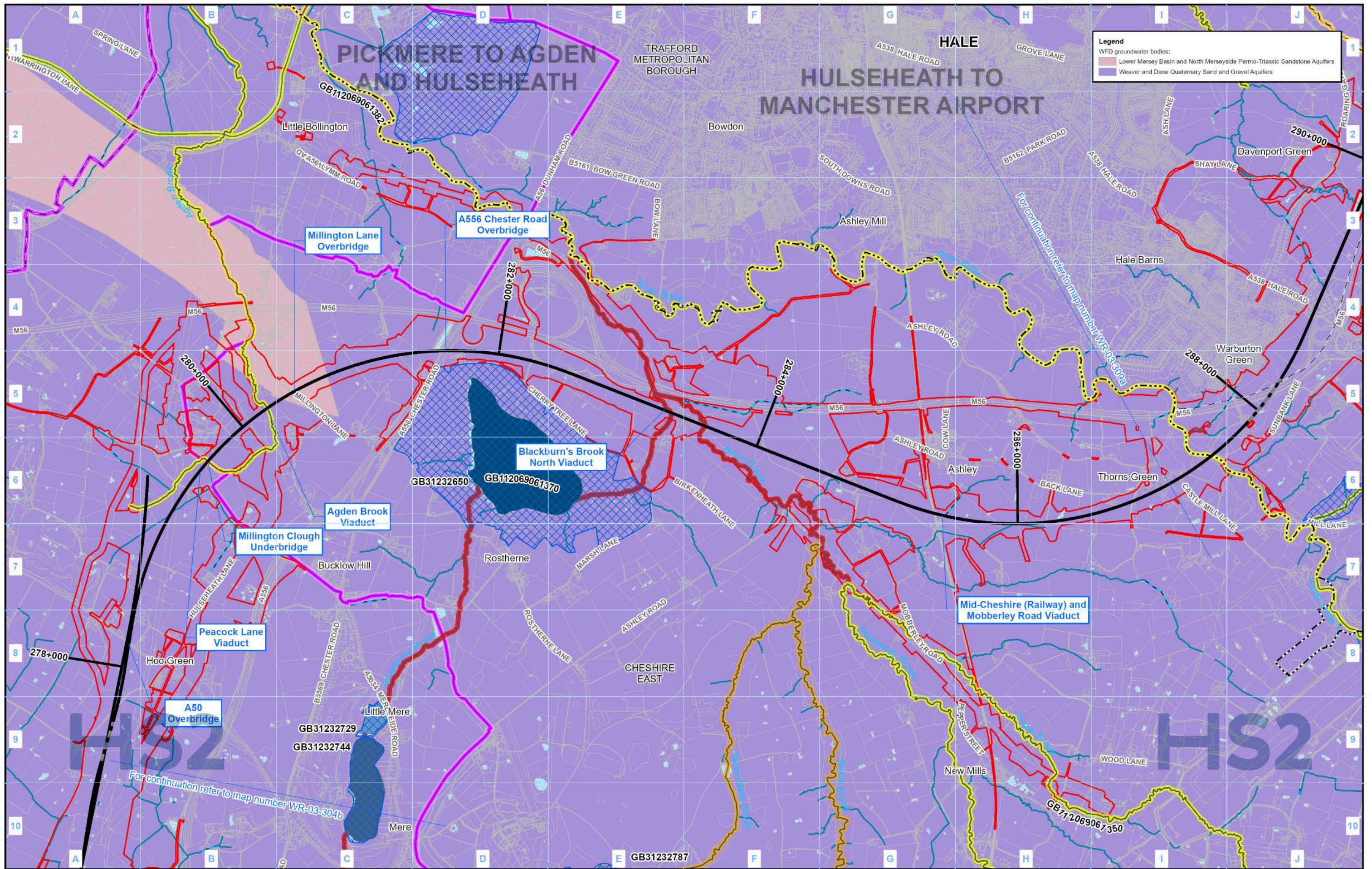
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002280-P01 **Date: 11/04/23**

Note: Not all data layers in the legend are represented on every map.



Legend
 WFD groundwater bodies:
 Lower Mersey Basin and North Merseyside Permo-Triassic Sandstone Aquifers
 Weaver and Dane Quaternary Sand and Gravel Aquifers

Legend

<ul style="list-style-type: none"> Route in tunnel Route on surface Depot, station, headhouse or portal building Land potentially required during construction Community area boundary County boundary District/Borough boundary 	<ul style="list-style-type: none"> Canal Canal tunnel Watercourse Culverted watercourse Lakes & Reservoirs Airport 	<p>WFD Surface Water Bodies</p> <p>Overall Status Classification (2015 RBMP Cycle 2):</p> <ul style="list-style-type: none"> Good Moderate Poor Bad 	<p>WFD Lakes</p> <p>Overall Status:</p> <ul style="list-style-type: none"> Good Moderate Poor Bad 	<ul style="list-style-type: none"> Special Areas of Conservation (SAC) Sites of Special Scientific Interest (SSSI)
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Map Number: WR-03-308b

Map Name: Water Framework Directive SES2 and AP2 ES

Community Area MA06: Hulseheath to Manchester Airport

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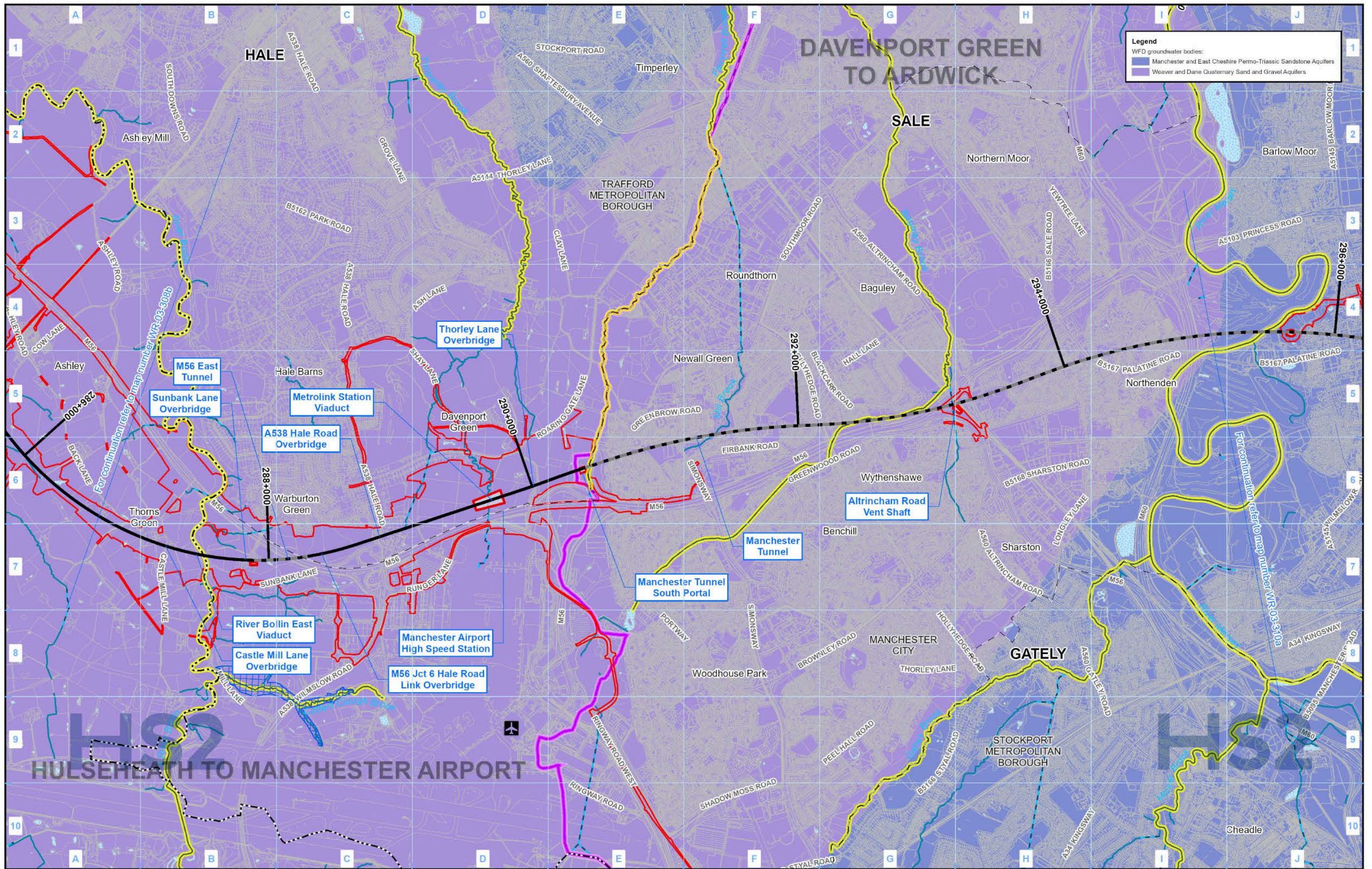
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002267-P01

Date: 11/04/23



Legend
 WFD groundwater bodies:
 Manchester and East Cheshire Permo-Triassic Sandstone Aquifers
 Weaver and Dane Quaternary Sand and Gravel Aquifers

Legend

Route in tunnel	Canal	WFD Surface Water Bodies	WFD Lakes
Route on surface	Canal tunnel	Overall Status Classification (2015 RBMP Cycle 2):	Overall Status:
Depot, station, headhouse or portal building	Watercourse	Good	Good
Land potentially required during construction	Culverted watercourse	Moderate	Moderate
Community area boundary	Lakes & Reservoirs	Poor	Poor
County boundary	Airport	Bad	Bad
District/Borough boundary			

Special Areas of Conservation (SAC)
 Sites of Special Scientific Interest (SSSI)

Map Number: WR-03-309a
 Map Name: Water Framework Directive SES2 and AP2 ES
 Community Area MA06: Hulseheath to Manchester Airport

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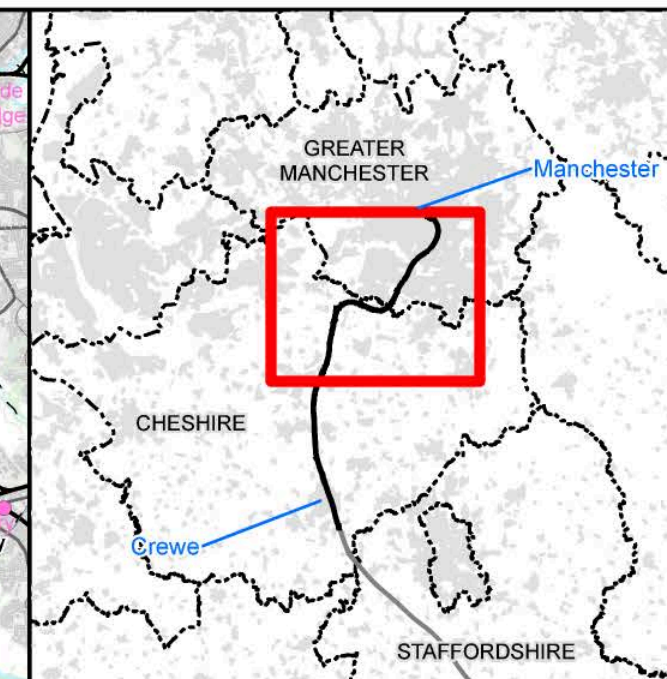
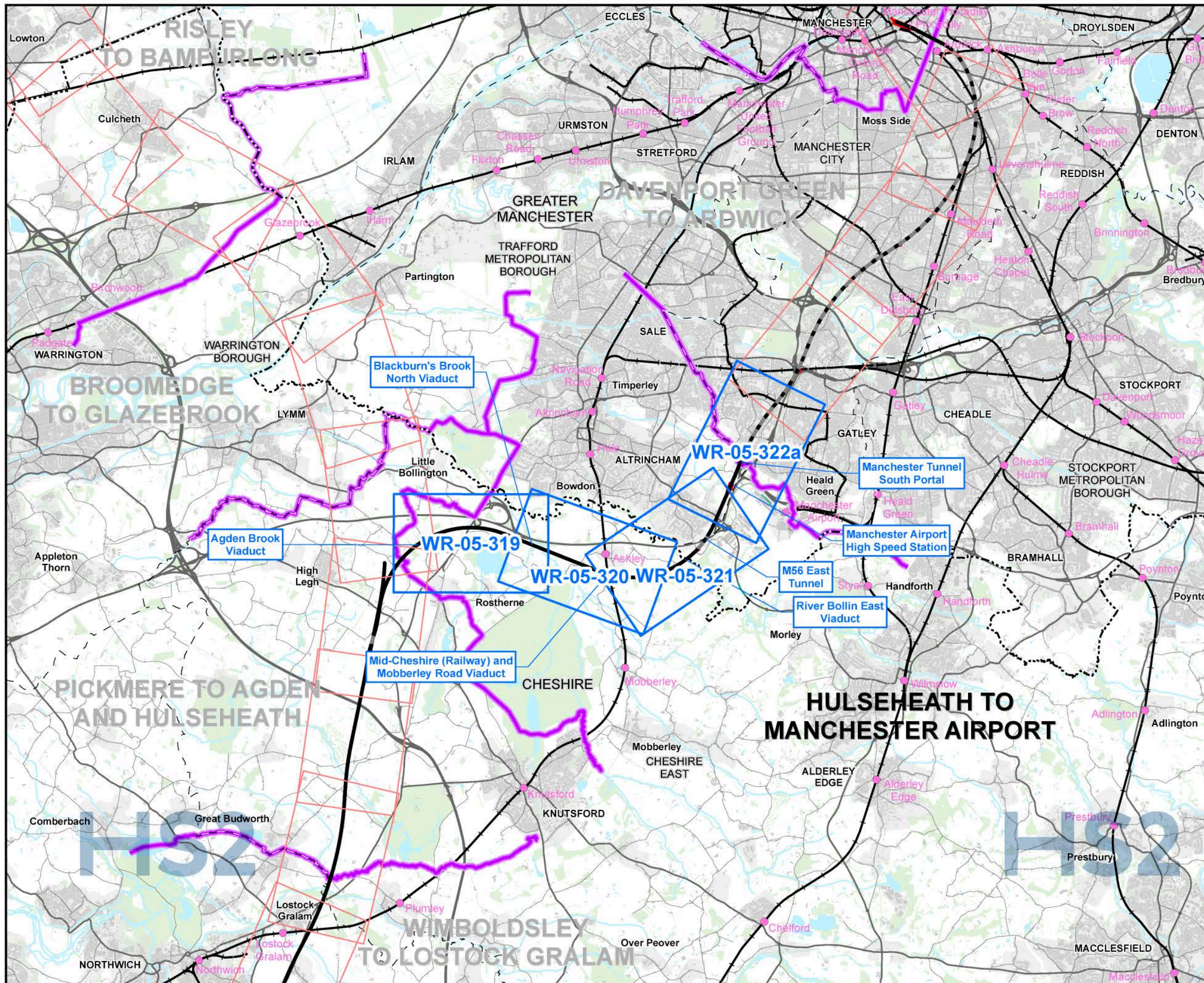
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002268-P01
 Date: 11/04/23



Map Series Information:

The map shows the output from hydraulic modelling of specific crossing locations and the effect the Proposed Scheme has on flood extent at 1 in 100 years return period inclusive of climate change.

Main Map Legend

- Route in tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Community area boundary
- Existing railway station
- County boundary
- District/Borough boundary
- Map sheets included in this community area
- Map sheets included in this community with no amendment
- Map sheets not included in this community area

Map Number	WR-05-INDEX-MA06
Map Name	Index Map of: Modelled Baseline and Post Development Flood Extent 1 in 100 including Climate Change (1%+CC) Annual Probability of River Flooding SES2 and AP2 ES Community Area MA06: Hulseheath to Manchester Airport

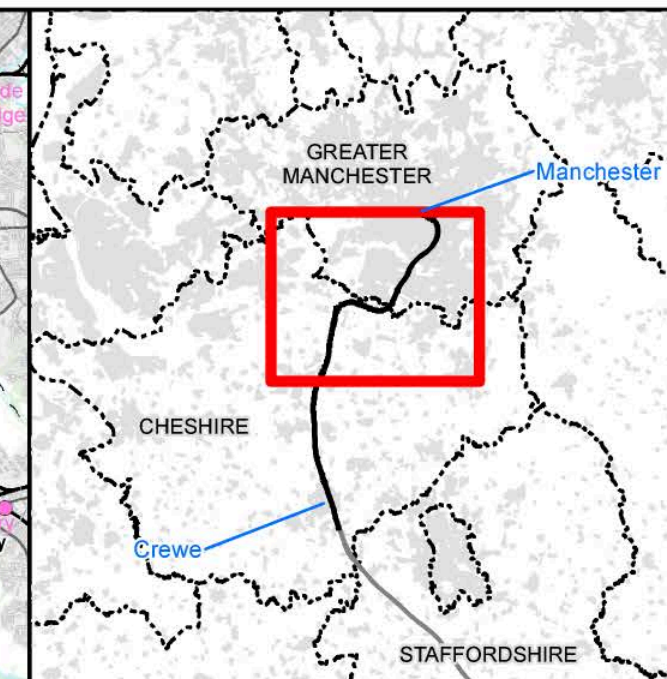
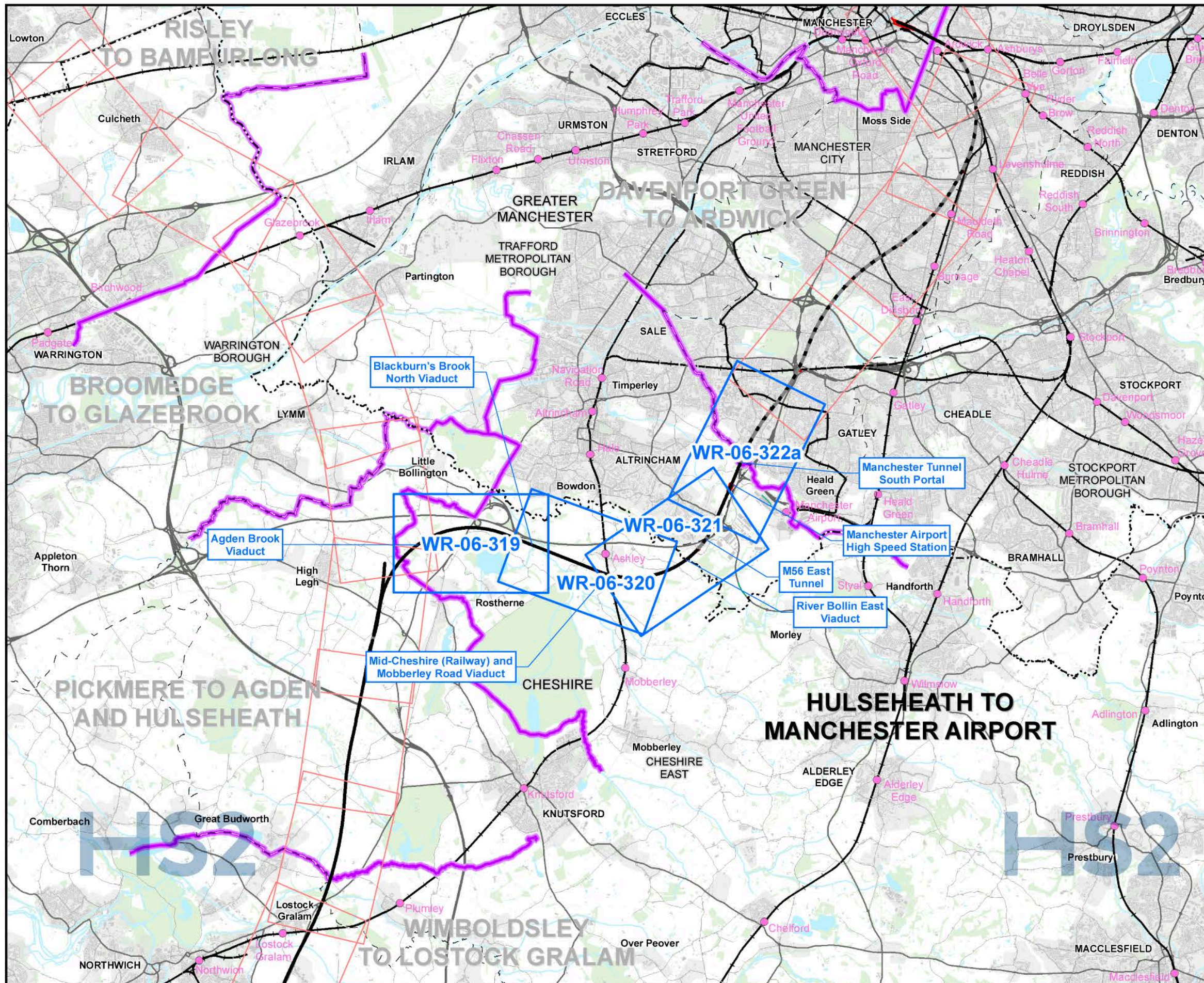
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Map Series Information:

The map shows the output from hydraulic modelling of specific crossing locations and the effect the Proposed Scheme has on flood extent at 1 in 20 year return period.

- Main Map Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Community area boundary
 - Existing railway station
 - County boundary
 - District/Borough boundary
 - Map sheets included in this community area
 - Map sheets included in this community with no amendment
 - Map sheets not included in this community area

Map Number **WR-06-INDEX-MA06**

Map Name **Index Map of:
Modelled Baseline and Post Development Flood
Extent 1 in 20 (5%) Annual Probability of River
Flooding
SES2 and AP2 ES
Community Area MA06:
Hulseheath to Manchester Airport**

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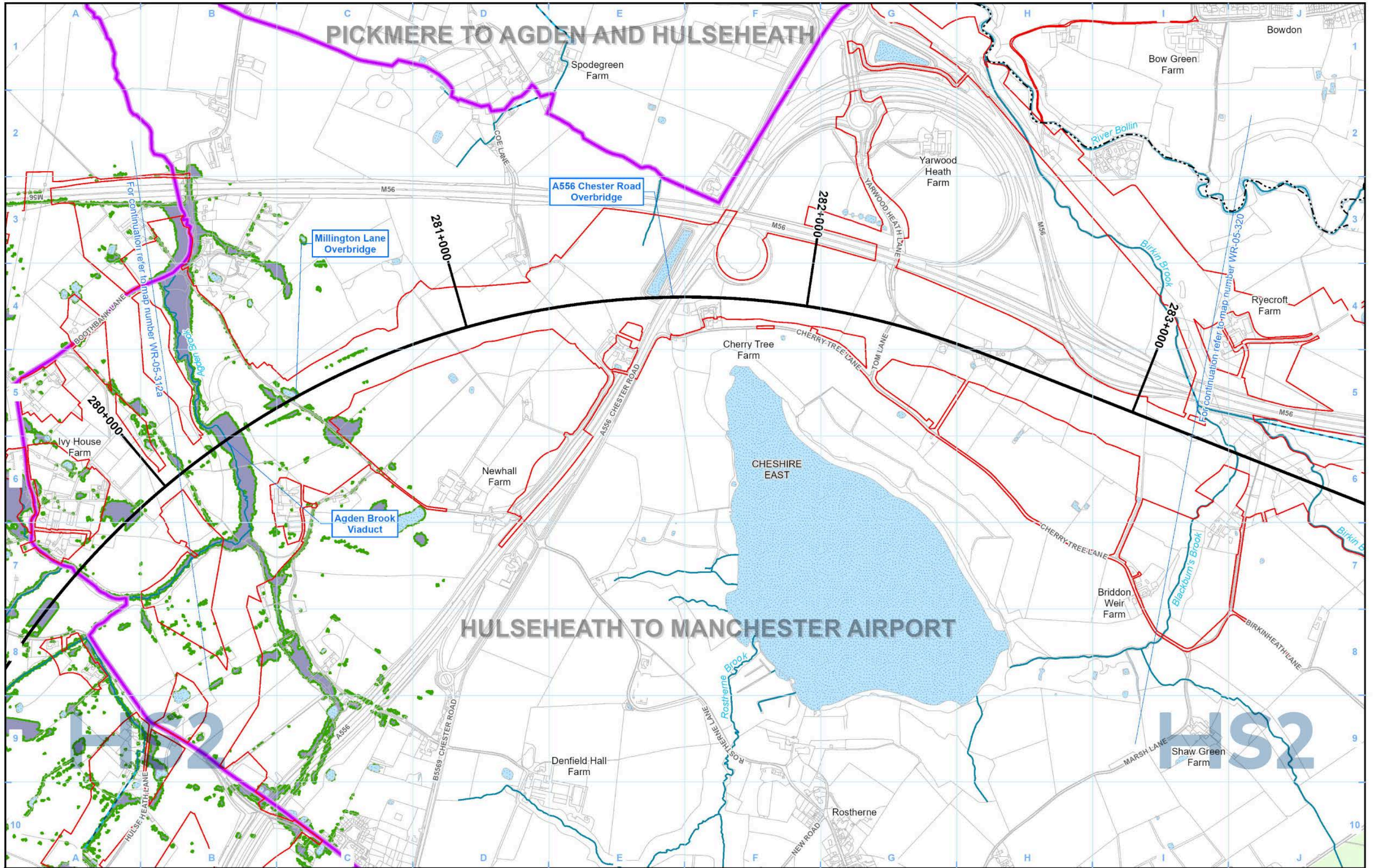
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002372-P01 **Date: 30/03/23**

PICKMERE TO AGDEN AND HULSEHEATH

HULSEHEATH TO MANCHESTER AIRPORT



Legend

Route in tunnel	Watercourse	Modelled Baseline Flood Extent 1 in 100 (1%+CC) including Climate Change (UKCP18) Annual Probability of River Flooding
Route on surface	Culverted watercourse	Modelled Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change (UKCP18) Annual Probability of River Flooding
Depot, station, headhouse or portal building	Canal	Open water
Land potentially required during construction	Canal tunnel	
Community area boundary	County boundary	
District/Borough boundary		

Map Number	WR-05-319
Map Name	Modelled Baseline and Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change Annual Probability of River Flooding SES2 and AP2 ES
Community Area MA06: Hulseheath to Manchester Airport	

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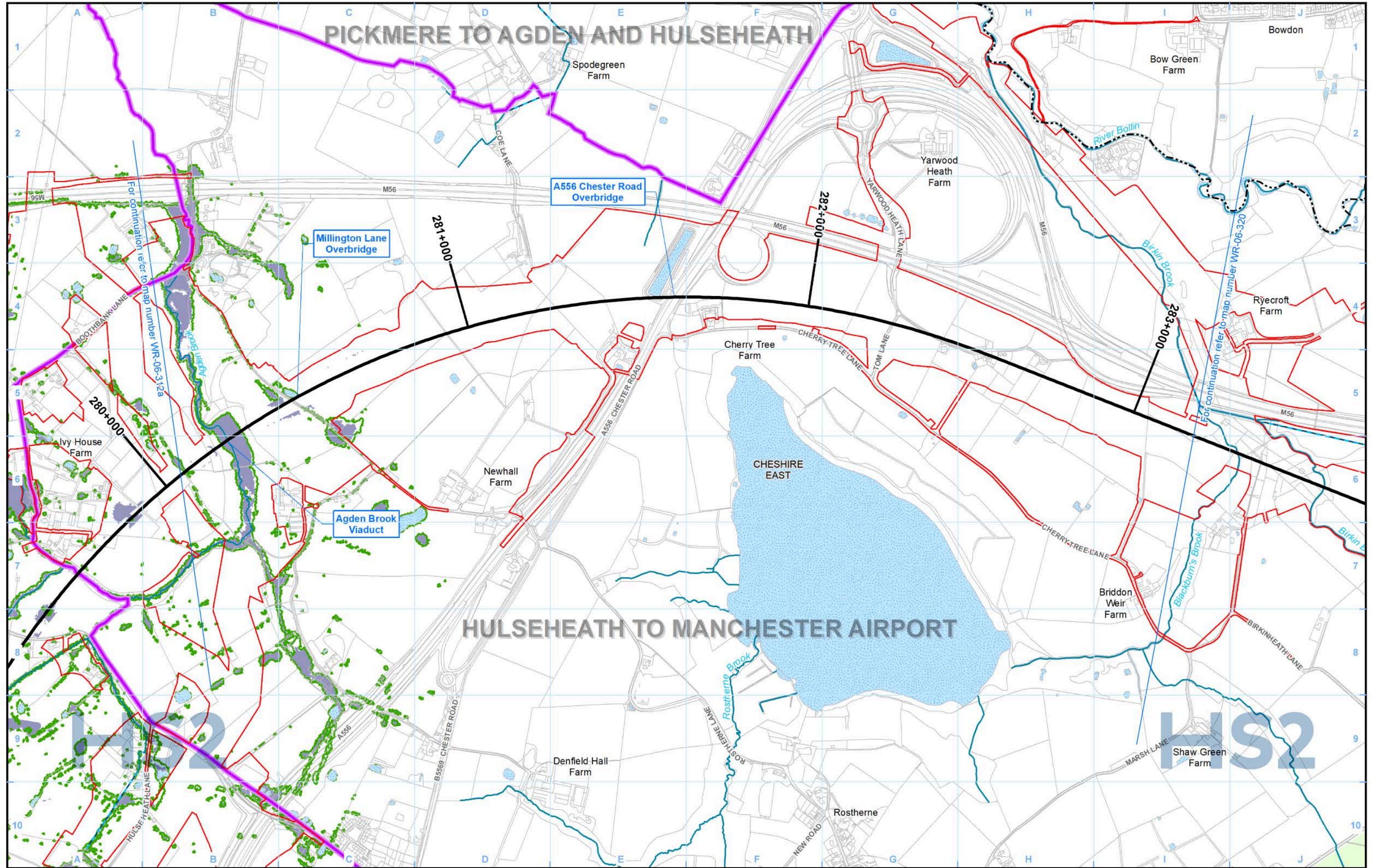
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002308-P01

Date: 31/03/23



Legend			
	Route in tunnel		Modelled Baseline Flood Extent 1 in 20 (5%) Annual Probability of River Flooding
	Route on surface		Modelled Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding
	Depot, station, headhouse or portal building		Canal
	Land potentially required during construction		Canal tunnel
	Community area boundary		Open water
	County boundary		
	District/Borough boundary		

Map Number	WR-06-319
Map Name	Modelled Baseline and Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding SES2 and AP2 ES Community Area MA06: Hulseheath to Manchester Airport

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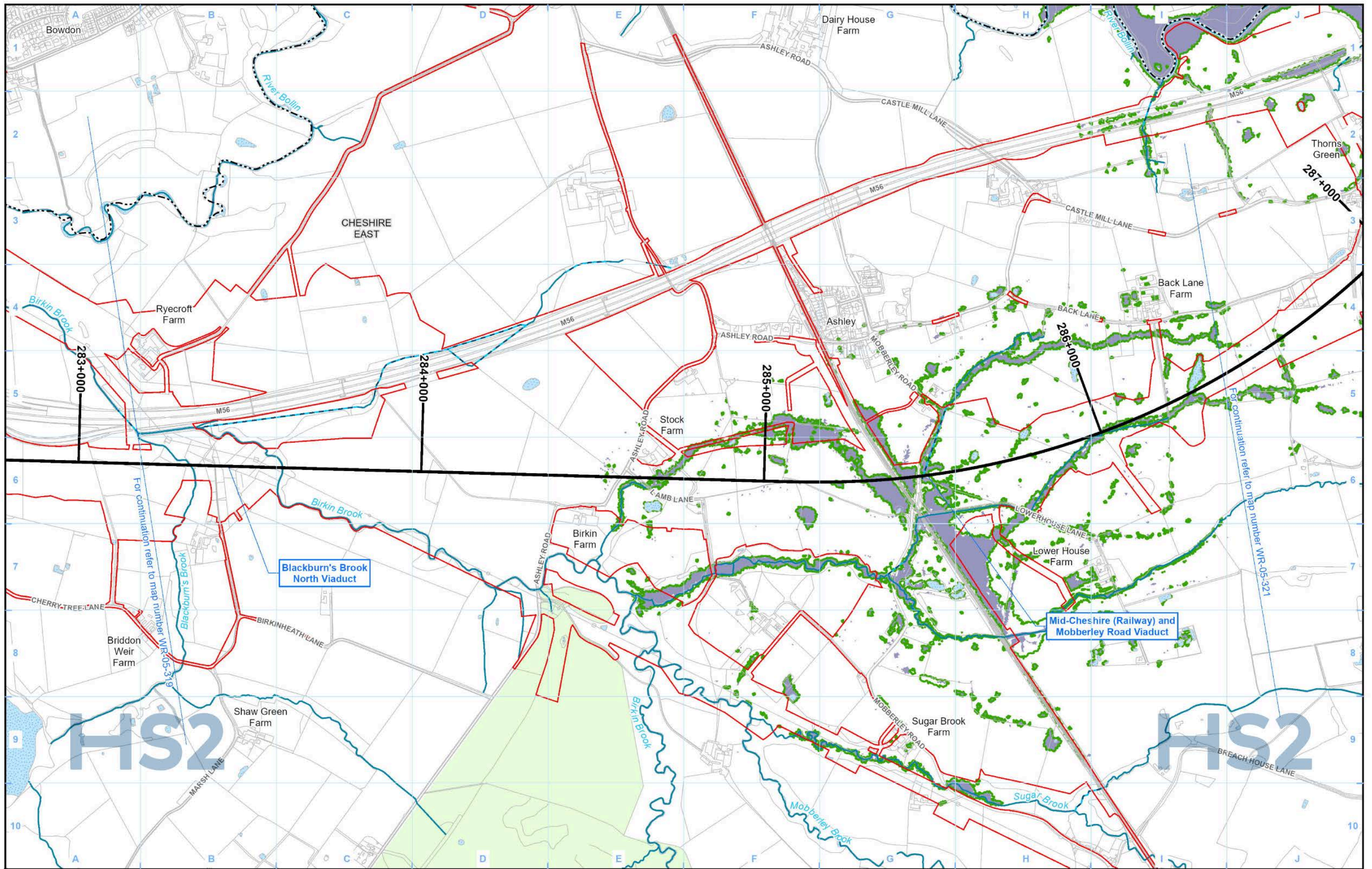
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Scale at A3: 1:10,000

Metres

Date: 30/03/23



- Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Land potentially required during construction
 - Community area boundary
 - County boundary
 - District/Borough boundary
 - Watercourse
 - Culverted watercourse
 - Canal
 - Canal tunnel
 - Open water
 - Modelled Baseline Flood Extent 1 in 100 (1%+CC) including Climate Change (UKCP18) Annual Probability of River Flooding
 - Modelled Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change (UKCP18) Annual Probability of River Flooding

Map Number: **WR-05-320**

Map Name: **Modelled Baseline and Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change Annual Probability of River Flooding SES2 and AP2 ES**

Community Area MA06: Hulseheath to Manchester Airport

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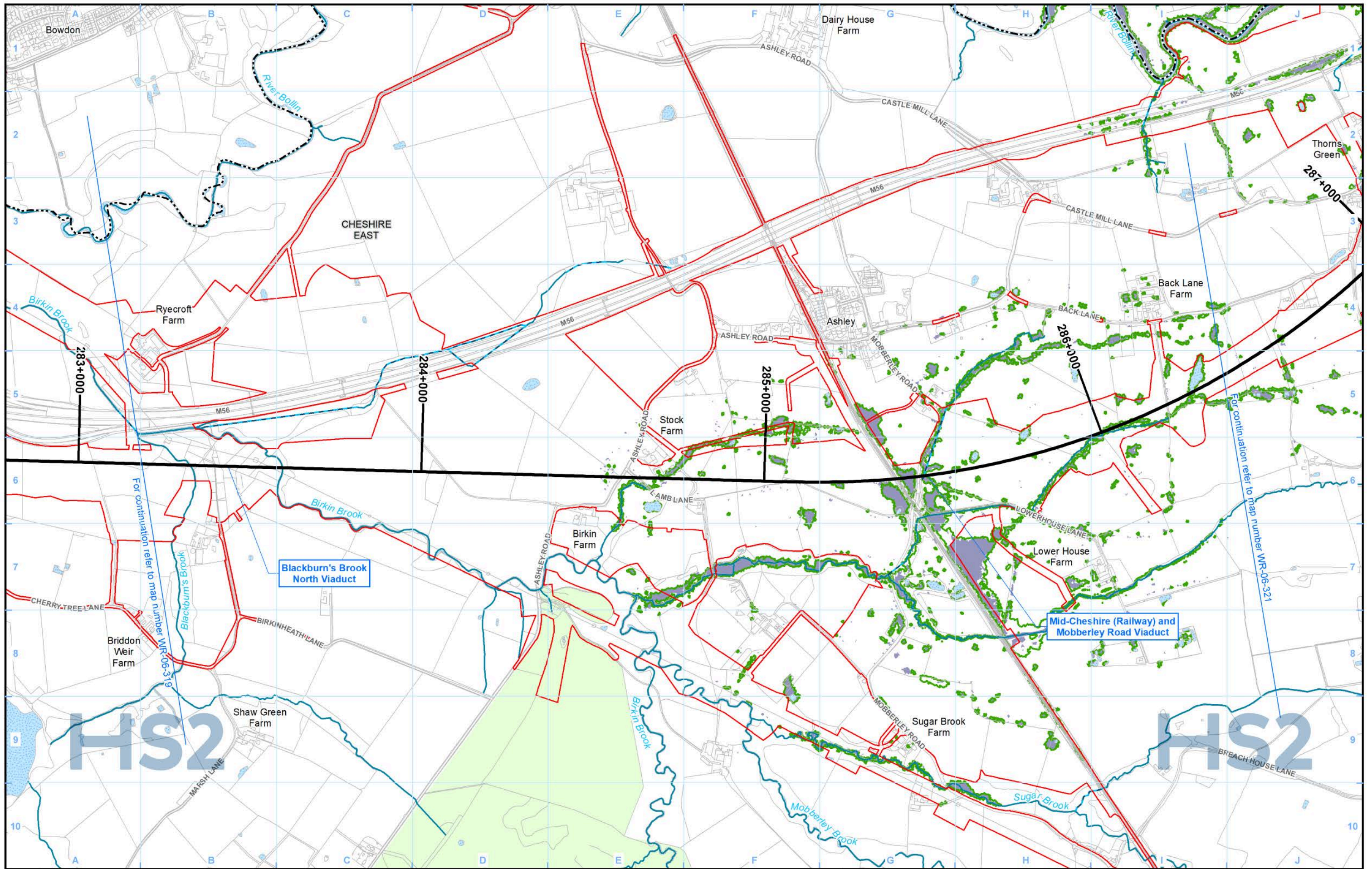
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Date: 31/03/23



- Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Land potentially required during construction
 - Community area boundary
 - County boundary
 - District/Borough boundary

- Watercourse
- Culverted watercourse
- Canal
- Canal tunnel
- Open water

- Modelled Baseline Flood Extent 1 in 20 (5%) Annual Probability of River Flooding
- Modelled Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding

Map Number: WR-06-320

Map Name: Modelled Baseline and Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding SES2 and AP2 ES Community Area MA06: Hulseheath to Manchester Airport

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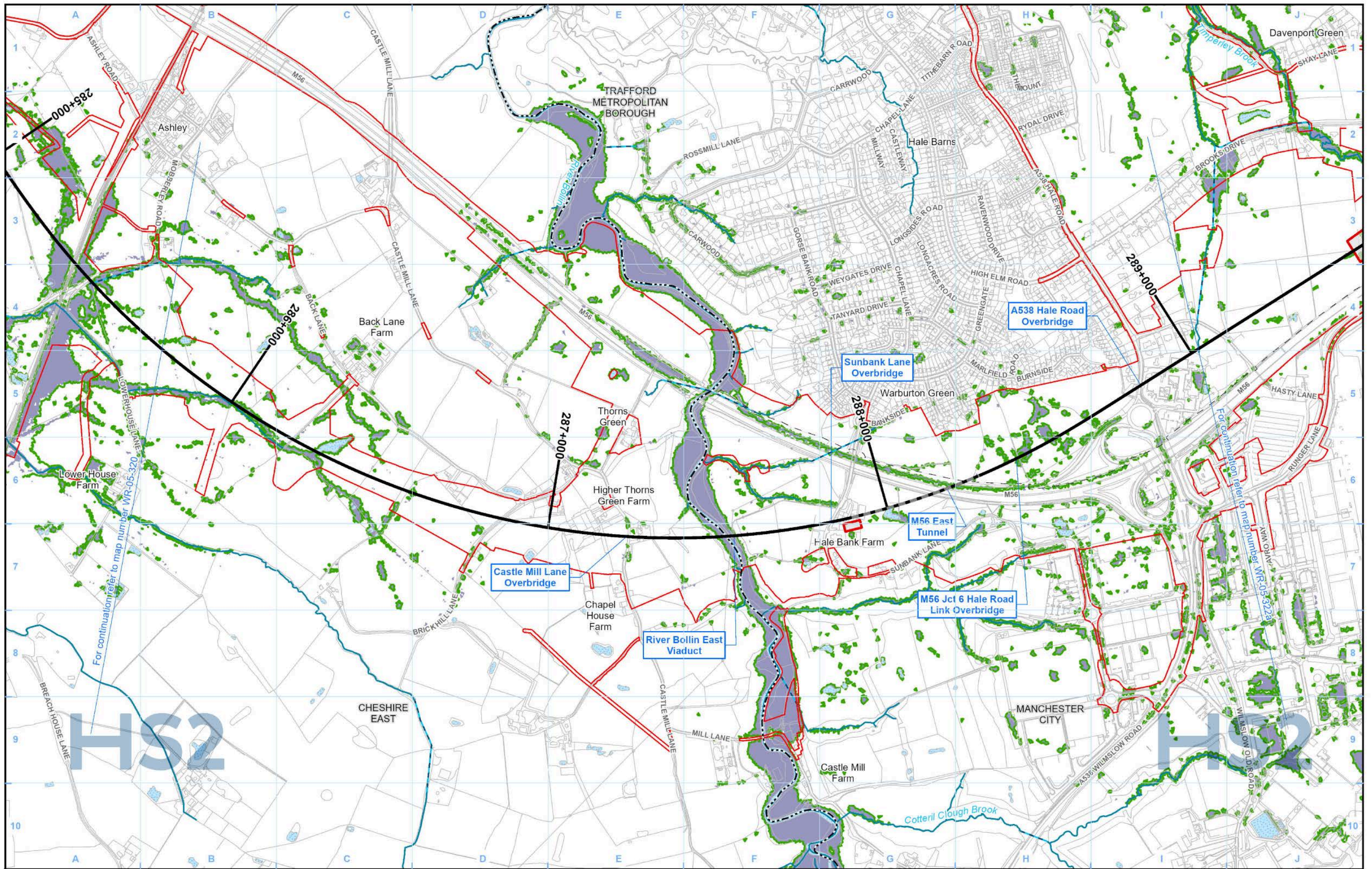
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002355-P01

Date: 30/03/23

Scale at A3: 1:10,000

Metres



- Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Land potentially required during construction
 - Community area boundary
 - County boundary
 - District/Borough boundary
 - Watercourse
 - Culverted watercourse
 - Canal
 - Canal tunnel
 - Open water
 - Modelled Baseline Flood Extent 1 in 100 (1%+CC) including Climate Change (UKCP18) Annual Probability of River Flooding
 - Modelled Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change (UKCP18) Annual Probability of River Flooding

Map Number: **WR-05-321**

Map Name: **Modelled Baseline and Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change Annual Probability of River Flooding SES2 and AP2 ES**

Community Area MA06: Hulseheath to Manchester Airport

HS2

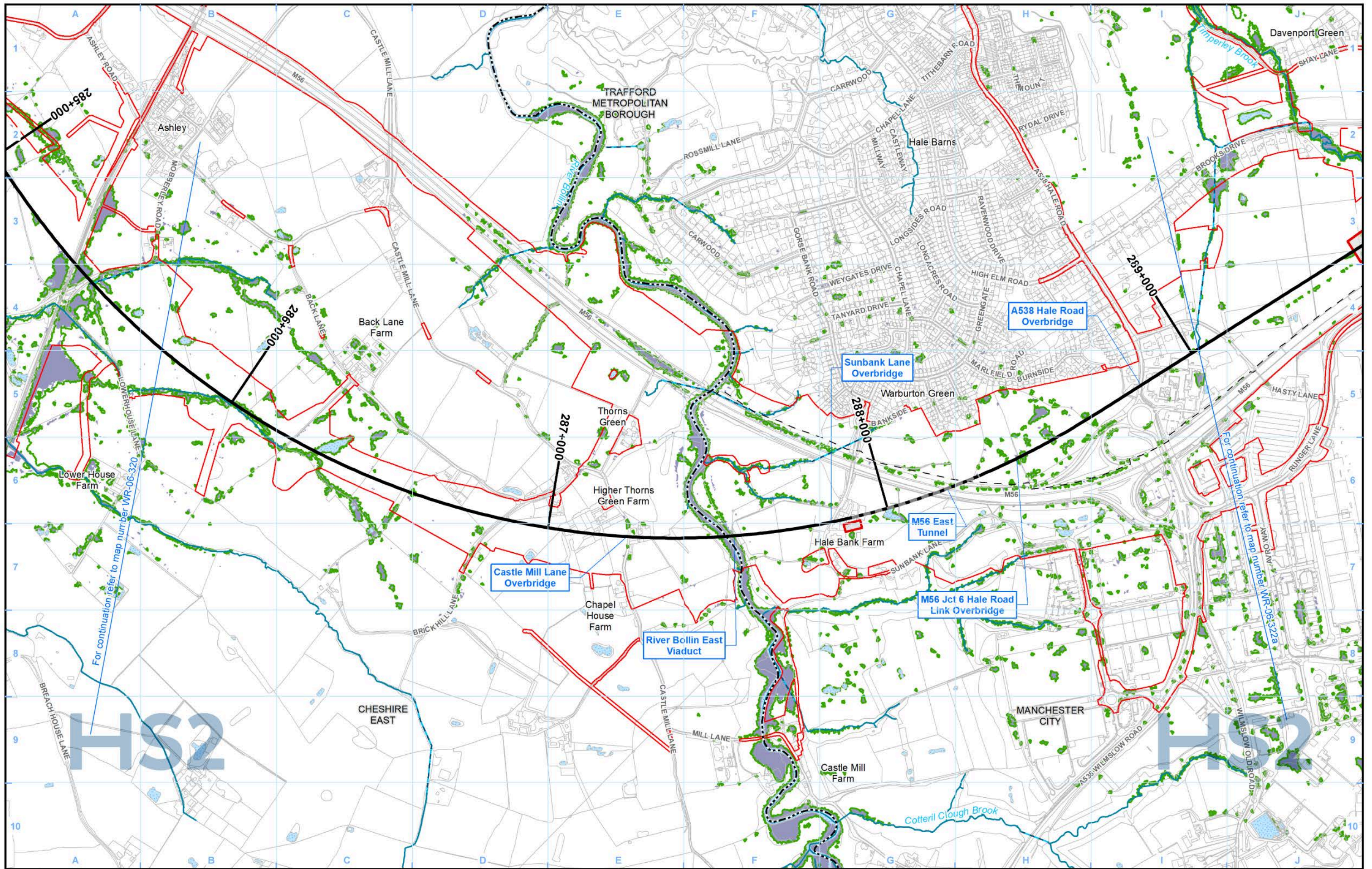
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Date: 31/03/23



- Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Land potentially required during construction
 - Community area boundary
 - County boundary
 - District/Borough boundary
 - Watercourse
 - Culverted watercourse
 - Canal
 - Canal tunnel
 - Open water
 - Modelled Baseline Flood Extent 1 in 20 (5%) Annual Probability of River Flooding
 - Modelled Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding

Map Number: **WR-06-321**

Map Name: **Modelled Baseline and Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding**

SES2 and AP2 ES

Community Area MA06: Hulseheath to Manchester Airport

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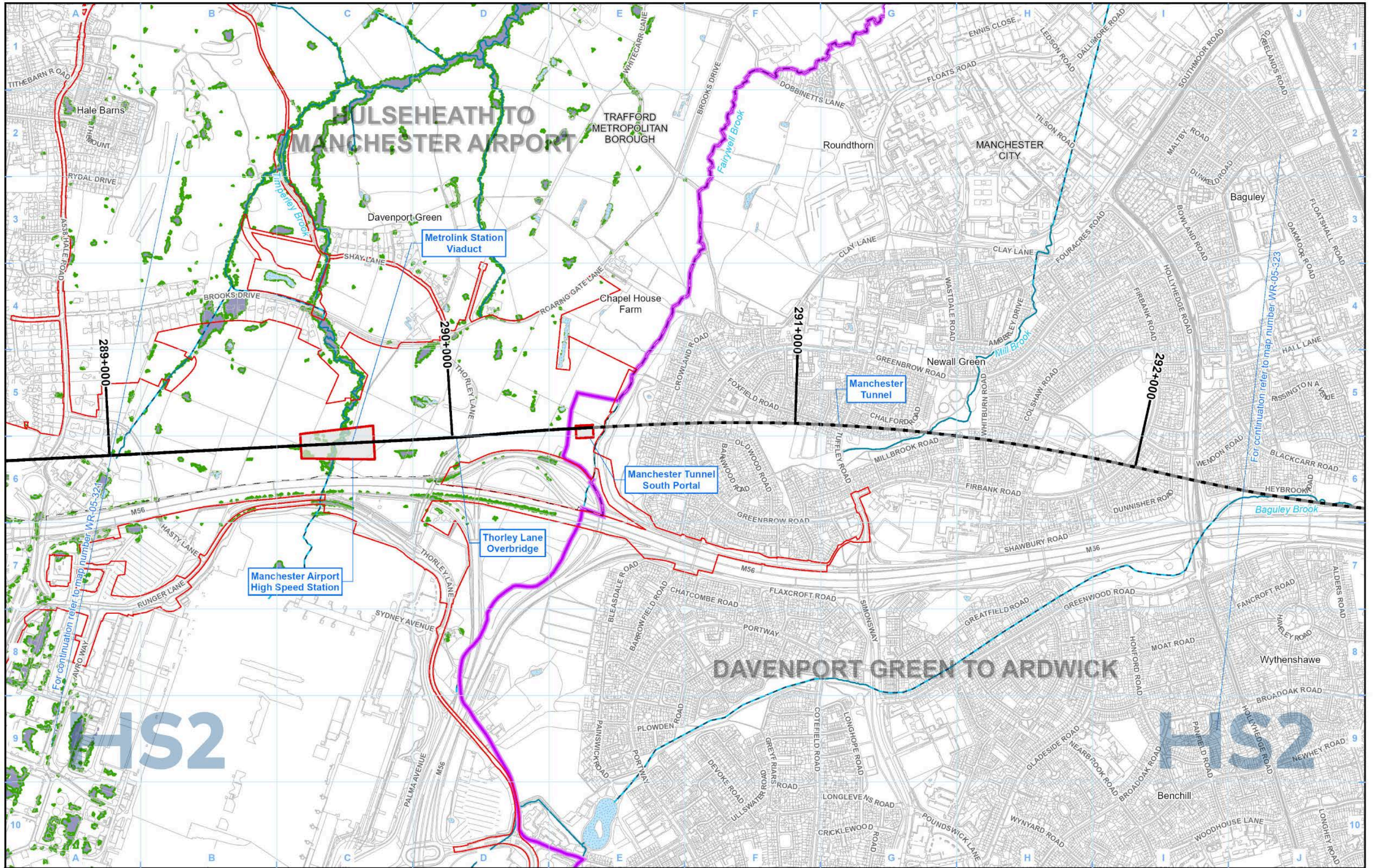
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Metres

Date: 30/03/23

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- Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Land potentially required during construction
 - Community area boundary
 - County boundary
 - District/Borough boundary
 - Watercourse
 - Culverted watercourse
 - Canal
 - Canal tunnel
 - Open water
 - Modelled Baseline Flood Extent 1 in 100 (1%+CC) including Climate Change (UKCP18) Annual Probability of River Flooding
 - Modelled Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change (UKCP18) Annual Probability of River Flooding

Map Number: WR-05-322a

Map Name: Modelled Baseline and Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change Annual Probability of River Flooding SES2 and AP2 ES

Community Area MA06: Hulseheath to Manchester Airport

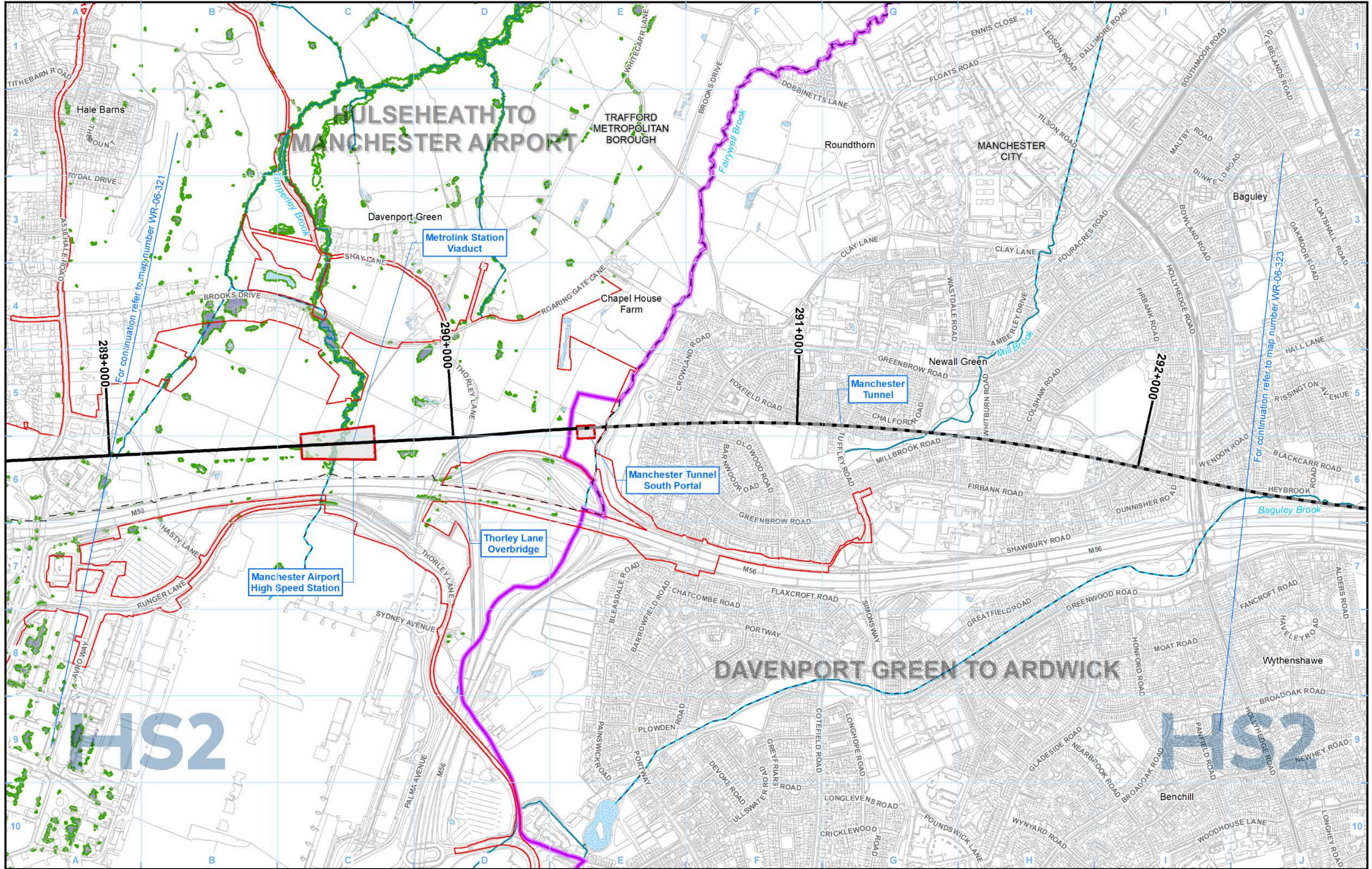
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Date: 31/03/23



Legend			
	Route in tunnel		Modelled Baseline Flood Extent 1 in 20 (5%) Annual Probability of River Flooding
	Route on surface		Modelled Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding
	Depot, station, headhouse or portal building		Canal
	Land potentially required during construction		Canal tunnel
	Community area boundary		Open water
	County boundary		
	District/Borough boundary		

Map Number	WR-06-322a
Map Name	Modelled Baseline and Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding SES2 and AP2 ES Community Area MA06: Hulseheath to Manchester Airport

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Metres

Date: 30/03/23

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High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

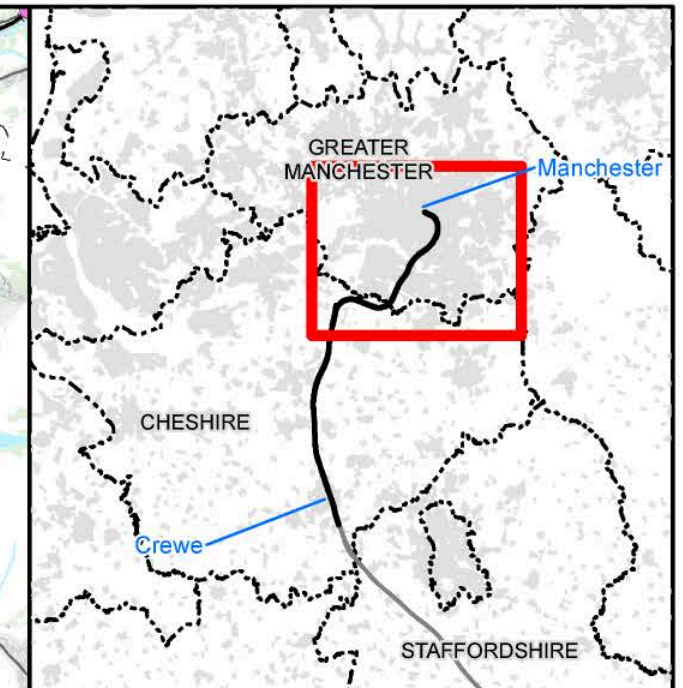
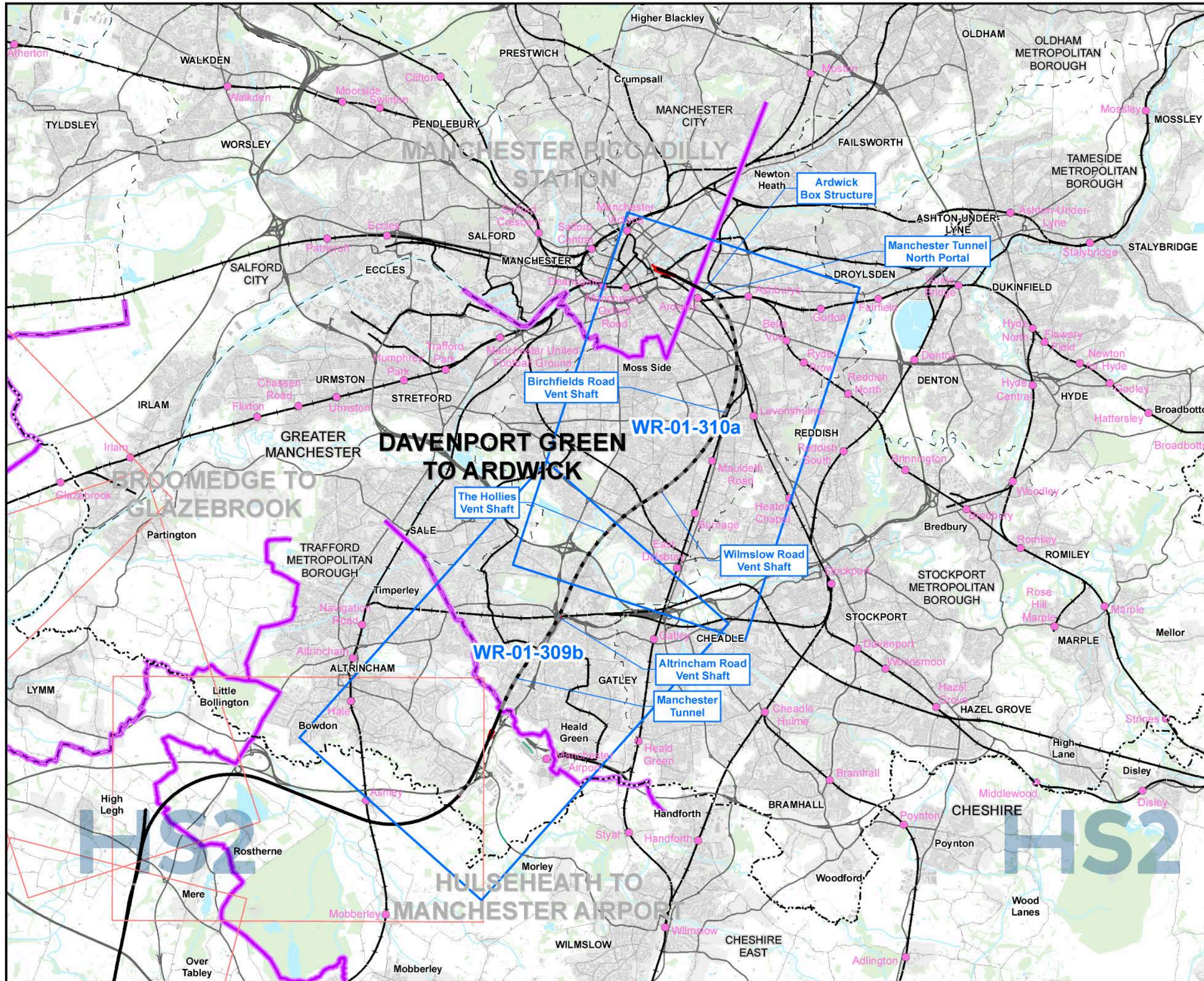
MA07: Davenport Green to Ardwick

WR-01 - Surface Water Baseline

WR-03 - Water Framework Directive

WR-05 - Modelled Baseline and Post Development Flood Extent 1 in 100 (1%CC) including Climate Change Annual Probability of River Flooding

WR-06 - Modelled Baseline and Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding



Map Series Information:

This map series shows surface water features such as rivers, streams, ponds, canals and reservoirs, flood zones, and surface water abstractions. The design of the Proposed Scheme will be informed through stakeholder engagement and further engineering and environmental studies.

Main Map Legend

Route in tunnel	Map sheets included in this community area
Route on surface	Map sheets included in this community with no amendment
Depot, station, headhouse or portal building	Map sheets not included in this community area
Community area boundary	
Existing railway station	
County boundary	
District/Borough boundary	

Map Number	WR-01-INDEX-MA07
Map Name	Index Map of: Surface Water Baseline SES2 and AP2 ES Community Area MA07: Davenport Green to Ardwick

HS2

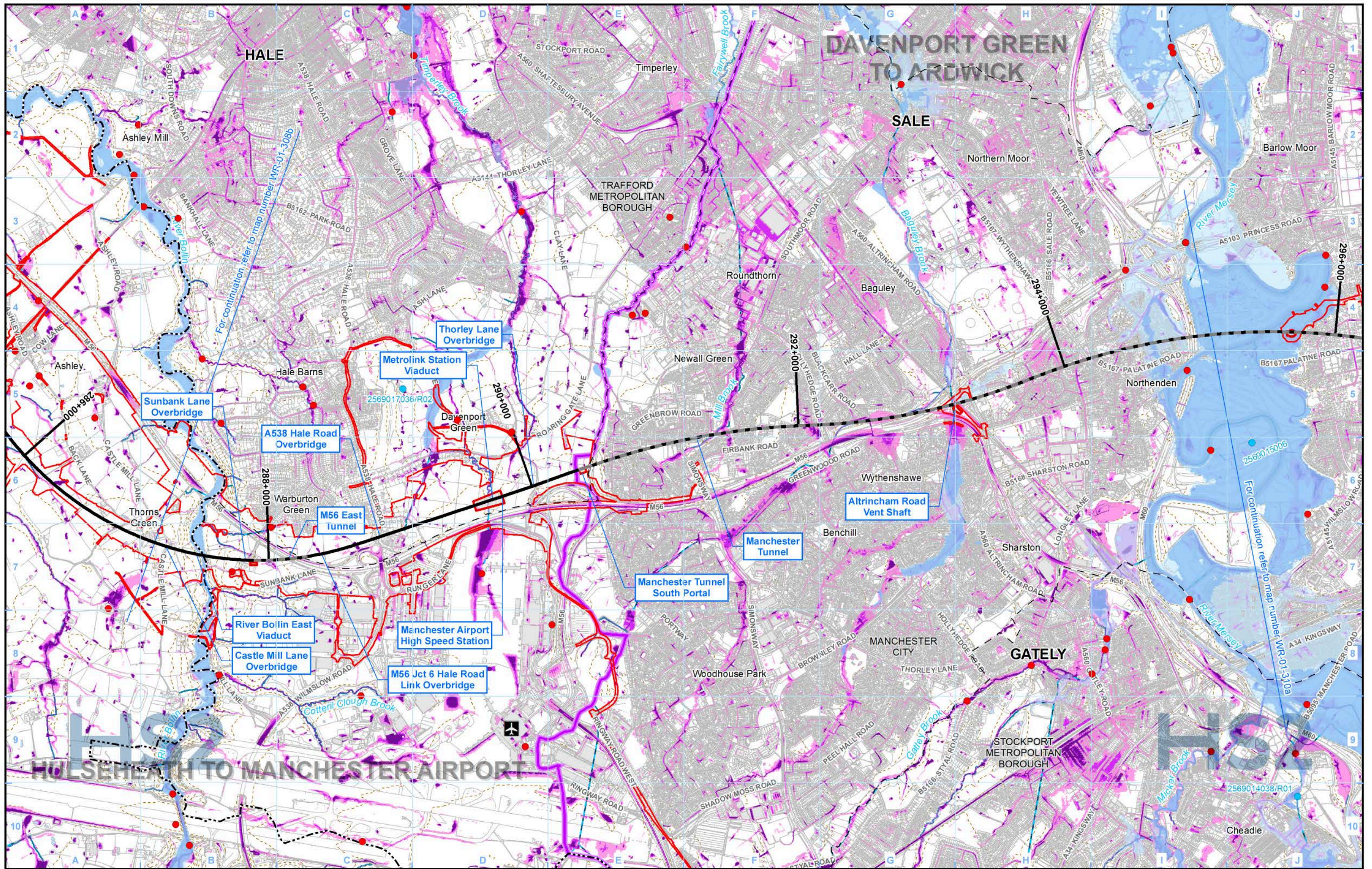
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Doc Number: 2PT27-MWJ-EV-MAP-M000-000310-P01

Date: 30/03/23

Note: Not all data layers in the legend are represented on every map.



- Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Land potentially required during construction
 - Community area boundary
 - County boundary
 - District/Borough boundary
 - Licensed surface water abstraction (excluding public water supplies)
 - Unlicensed private surface water abstraction
 - Consented discharge to surface water
 - Airport
 - Watercourse
 - Culverted watercourse
 - Canal
 - Canal tunnel
 - Lakes & Reservoirs
 - Historic flooding area
 - Fluvial flood risk: Flood Zone 2, Flood Zone 3
 - Risk of Flooding from Surface Water: High - chance of flooding greater than 1 in 30 (3.33%), Medium - chance of flooding between 1 in 100 (1%) and 1 in 30 (3.33%), Low - chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)

Map Number: WR-01-309b
 Map Name: Surface Water Baseline SES2 and AP2 ES
 Community Area MA07: Davenport Green to Ardwick

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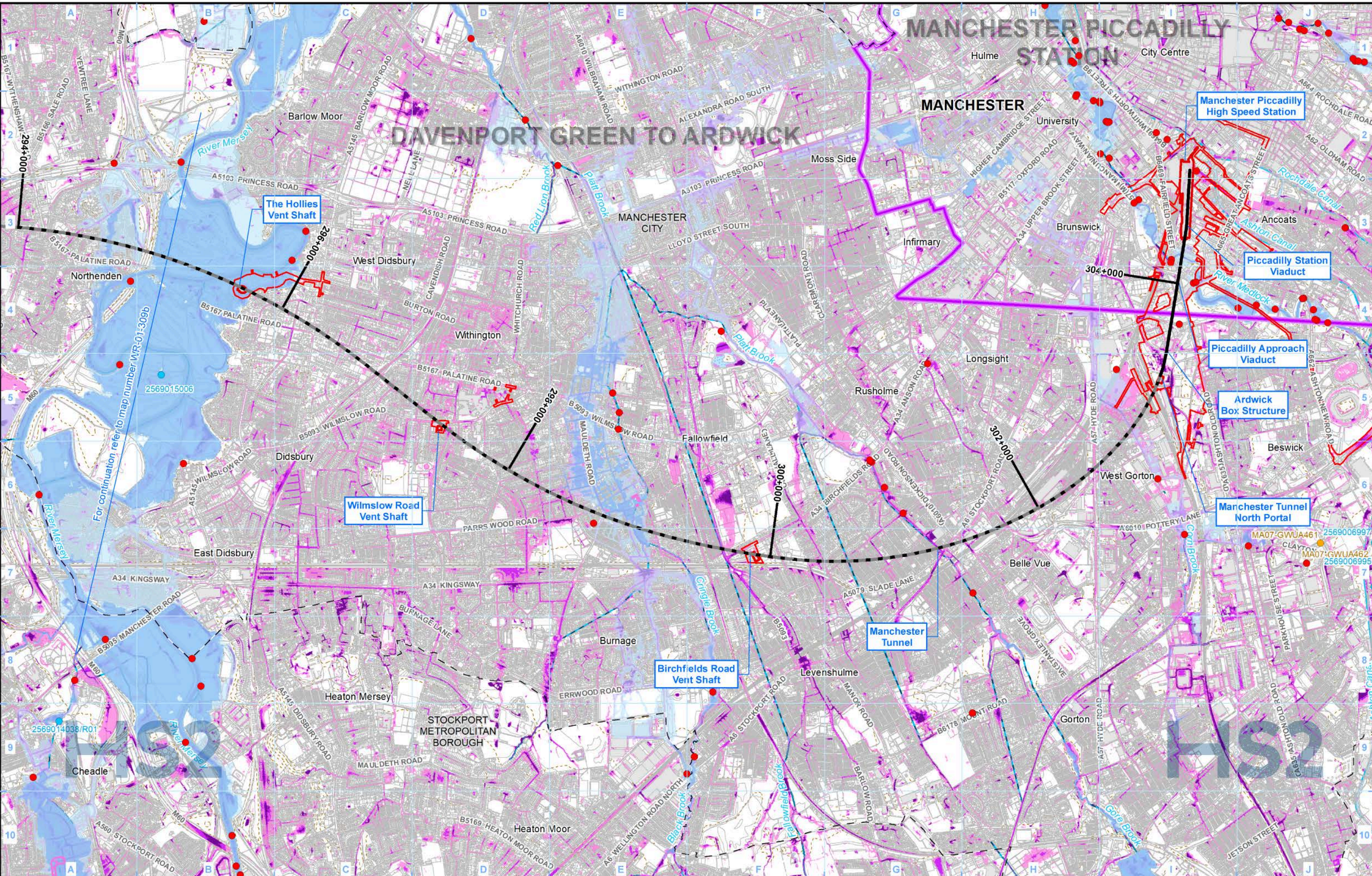
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DAVENPORT GREEN TO ARDWICK

MANCHESTER PICCADILLY STATION



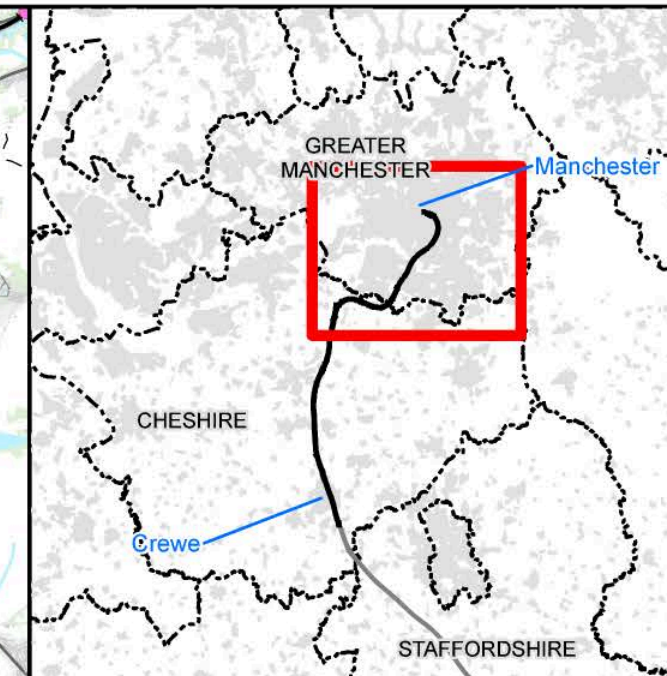
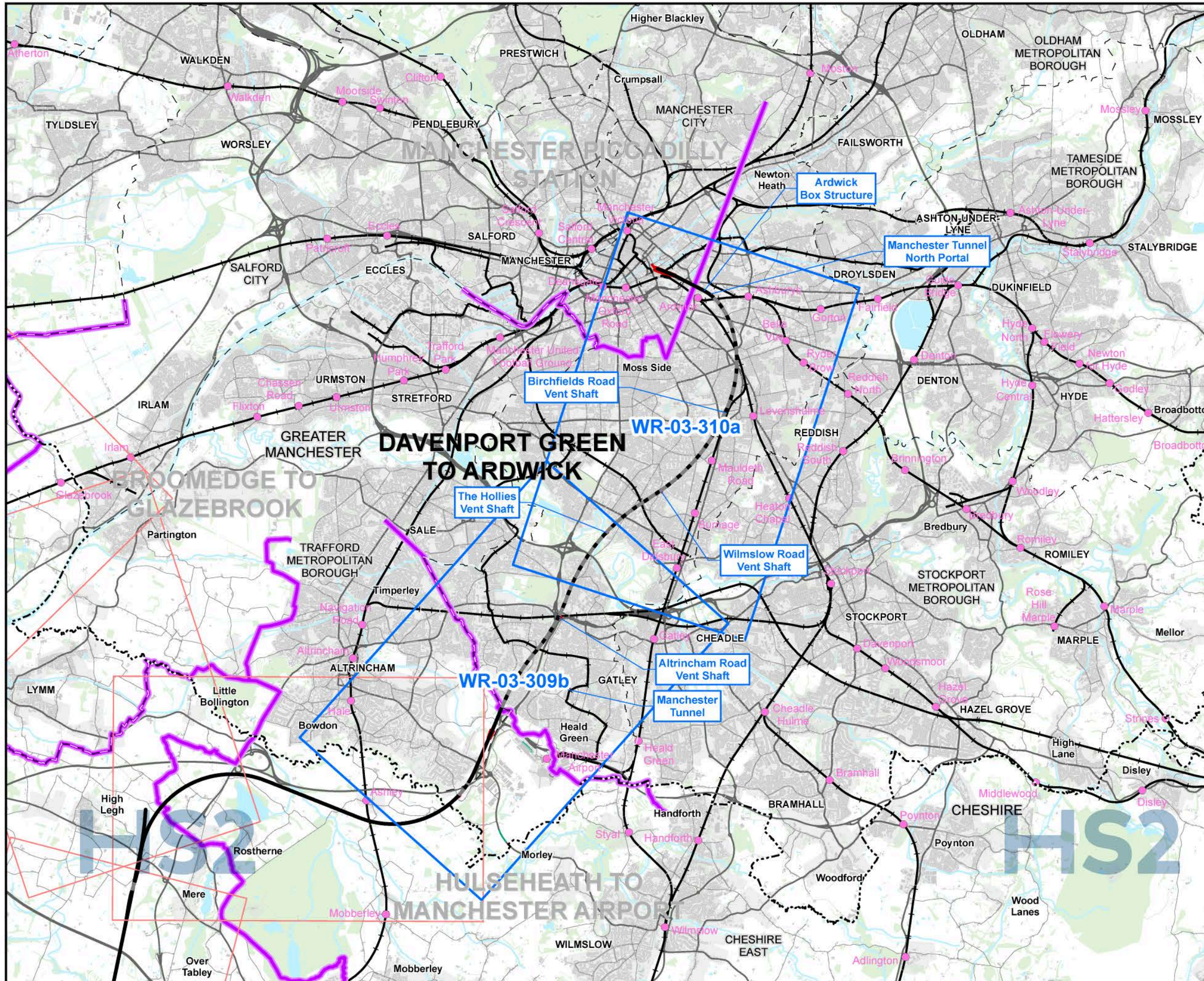
Legend

- | | | | |
|-----------------------------------------------|----------------------------------------------------------------------|------------------------|---------------------------------------------------------------------------------------------|
| Route in tunnel | Licensed surface water abstraction (excluding public water supplies) | Watercourse | Fluvial flood risk: Flood Zone 2 |
| Route on surface | Unlicensed private surface water abstraction | Culverted watercourse | Flood Zone 3 |
| Depot, station, headhouse or portal building | Consented discharge to surface water | Canal | Risk of Flooding from Surface Water: High - chance of flooding greater than 1 in 30 (3.33%) |
| Land potentially required during construction | Airport | Canal tunnel | Medium - chance of flooding between 1 in 100 (1%) and 1 in 30 (3.33%) |
| Community area boundary | | Lakes & Reservoirs | Low - chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%) |
| County boundary | | Historic flooding area | |
| District/Borough boundary | | | |

Map Number	WR-01-310a
Map Name	Surface Water Baseline SES2 and AP2 ES
Community Area MA07: Davenport Green to Ardwick	

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Doc Number: 2PT27-MWJ-EV-MAP-M000-000304-P01	Date: 30/03/23

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Map Series Information:
 This map series shows water bodies, their Water Framework Directive current status and associated ecological features.

- Main Map Legend**
- Route in tunnel
 - Route on surface
 - ▭ Depot, station, headhouse or portal building
 - Community area boundary
 - Existing railway station
 - - - County boundary
 - - - District/Borough boundary
 - ▭ Map sheets included in this community area
 - ▭ Map sheets included in this community with no amendment
 - ▭ Map sheets not included in this community area

Map Number: WR-03-INDEX-MA07
 Map Name: Index Map of: Water Framework Directive SES2 and AP2 ES
 Community Area MA07: Davenport Green to Ardwick

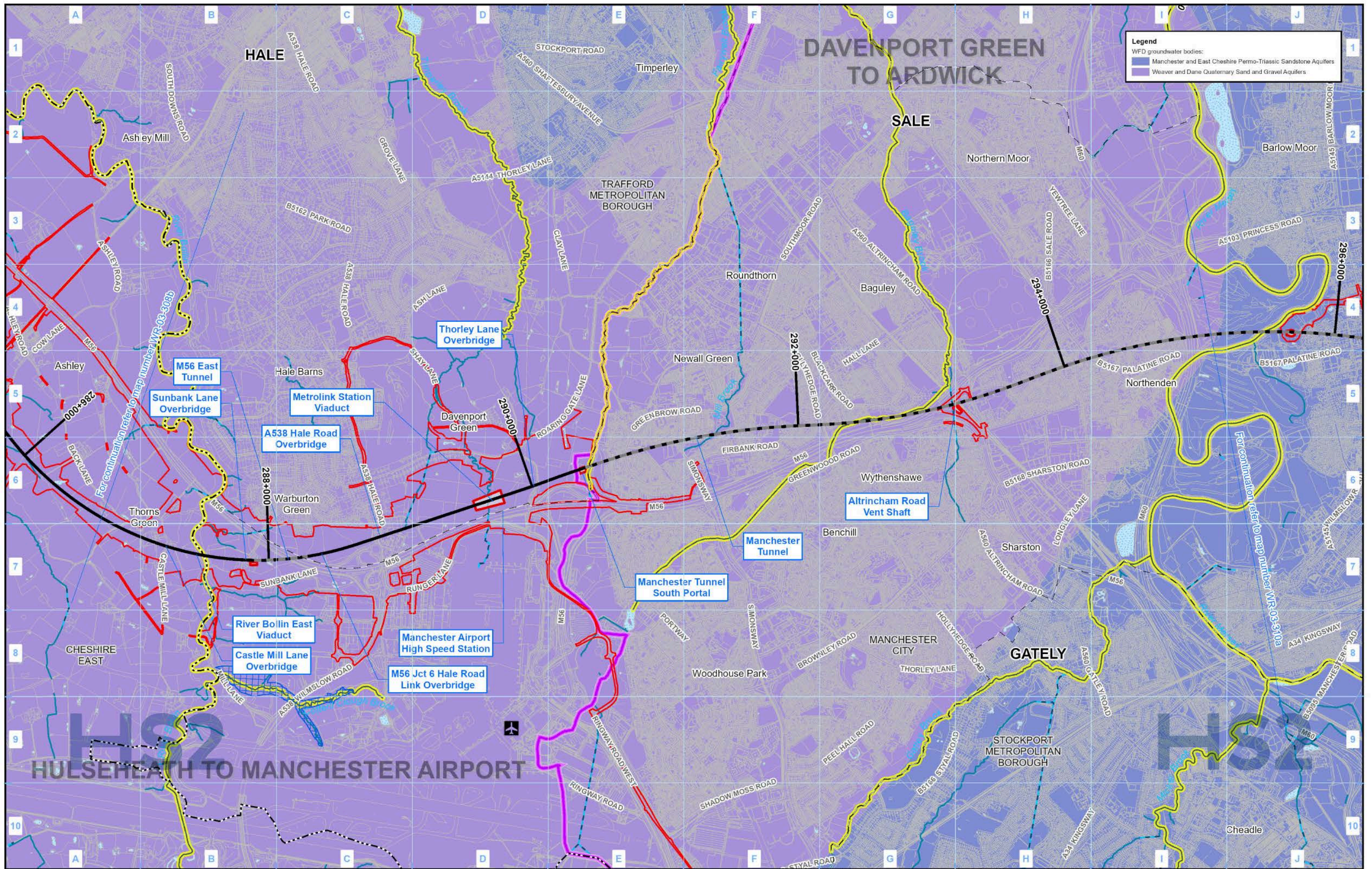
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 Date: 11/04/23



Map Number: WR-03-309b

Map Name: Water Framework Directive SES2 and AP2 ES

Community Area MA07: Davenport Green to Ardwick

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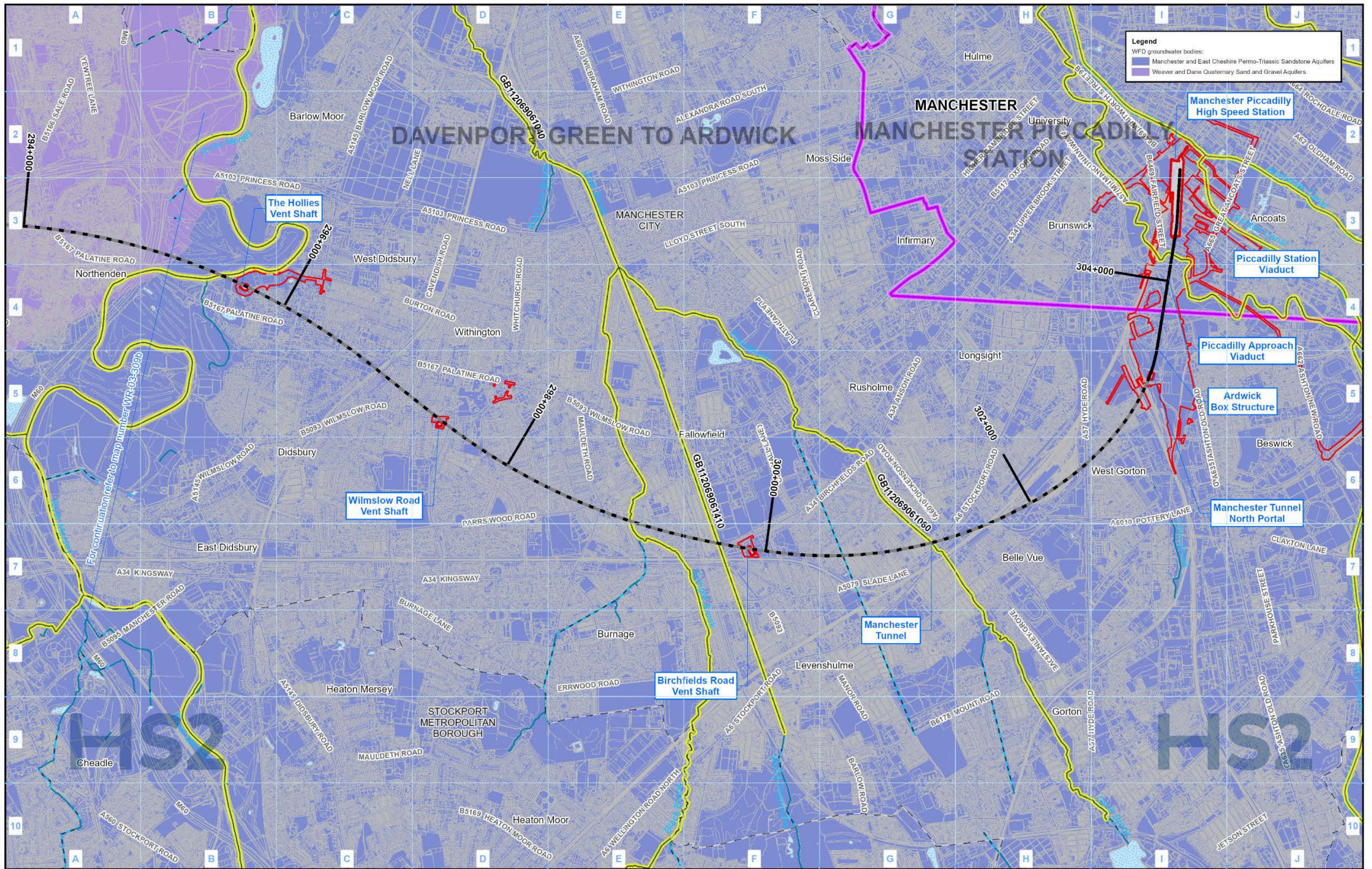
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002269-P01

Date: 11/04/23



Legend
 WFD groundwater bodies:
 Manchester and East Cheshire Permo-Triassic Sandstone Aquifers
 Weaver and Dane Quaternary Sand and Gravel Aquifers

Legend

- Route in tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Land potentially required during construction
- Community area boundary
- County boundary
- District/Borough boundary
- Canal
- Canal tunnel
- Watercourse
- Culverted watercourse
- Lakes & Reservoirs
- Airport

WFD Surface Water Bodies
 Overall Status Classification (2015 RBMP Cycle 2):

- Good
- Moderate
- Poor
- Bad

WFD Lakes
 Overall Status:

- Good
- Moderate
- Poor
- Bad

Special Areas of Conservation (SAC)
 Sites of Special Scientific Interest (SSSI)

Map Number: WR-03-310a
 Map Name: Water Framework Directive SES2 and AP2 ES
 Community Area MA07: Davenport Green to Ardwick

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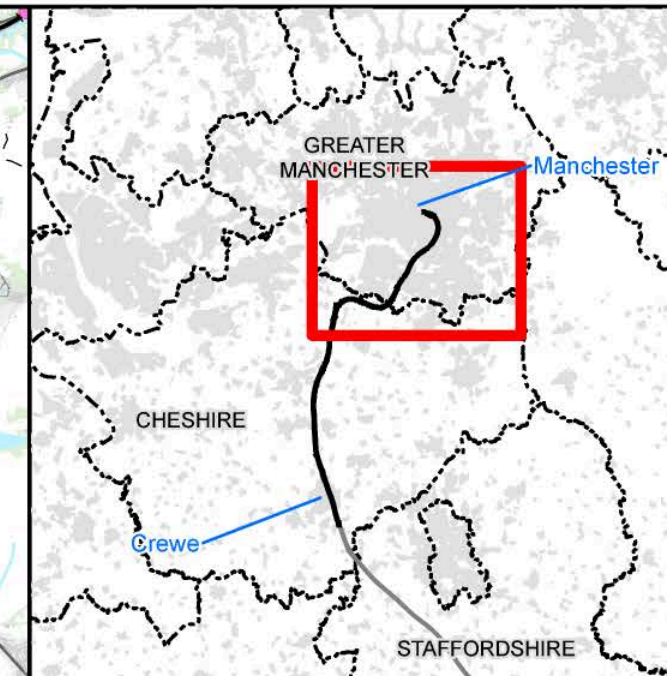
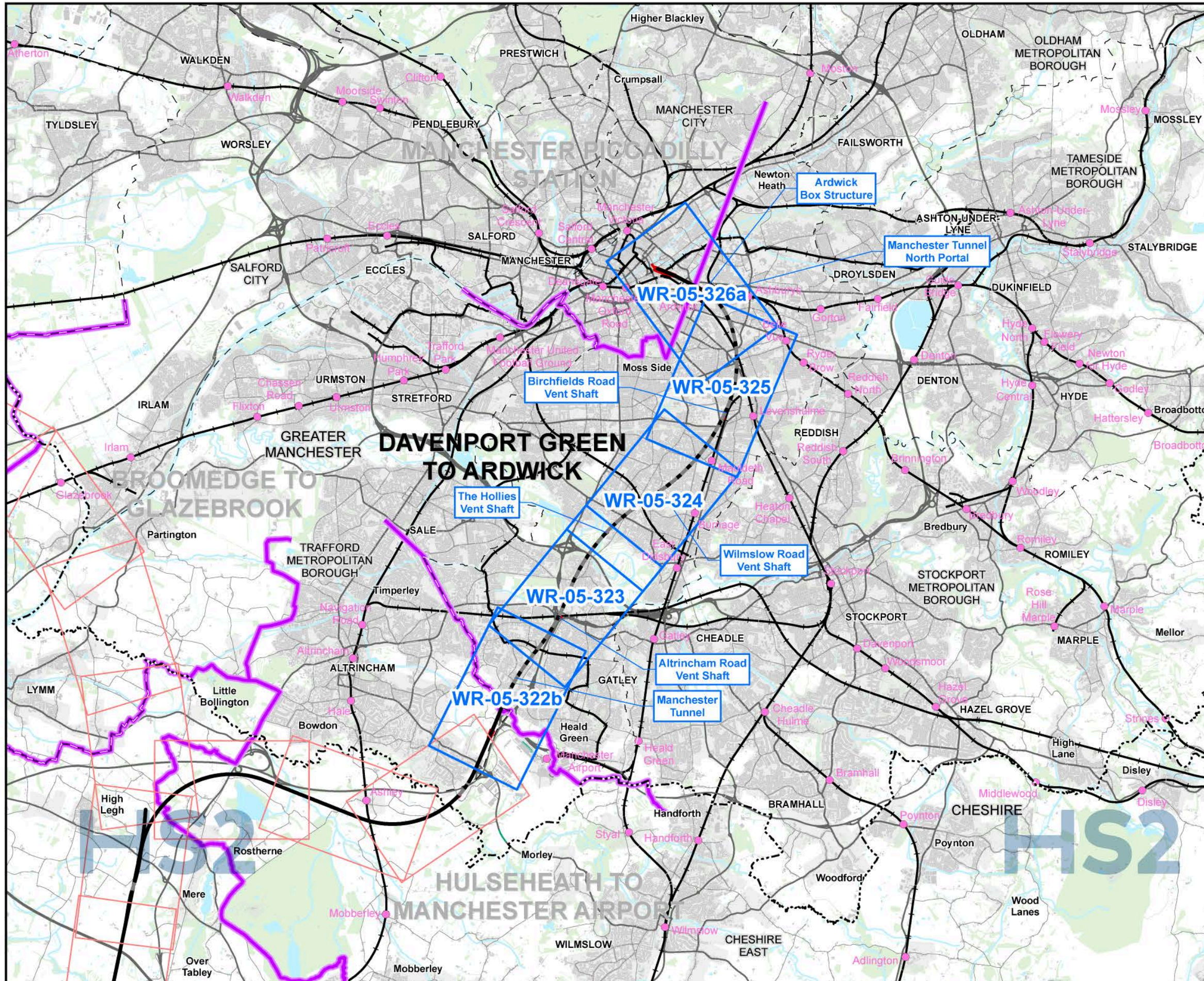
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002270-P01

Date: 11/04/23

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Map Series Information:

The map shows the output from hydraulic modelling of specific crossing locations and the effect the Proposed Scheme has on flood extent at 1 in 100 years return period inclusive of climate change.

- Main Map Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Community area boundary
 - Existing railway station
 - County boundary
 - District/Borough boundary
 - Map sheets included in this community area
 - Map sheets included in this community with no amendment
 - Map sheets not included in this community area

Map Number: **WR-05-INDEX-MA07**

Map Name: **Index Map of: Modelled Baseline and Post Development Flood Extent 1 in 100 including Climate Change (1%+CC) Annual Probability of River Flooding SES2 and AP2 ES Community Area MA07: Davenport Green to Ardwick**

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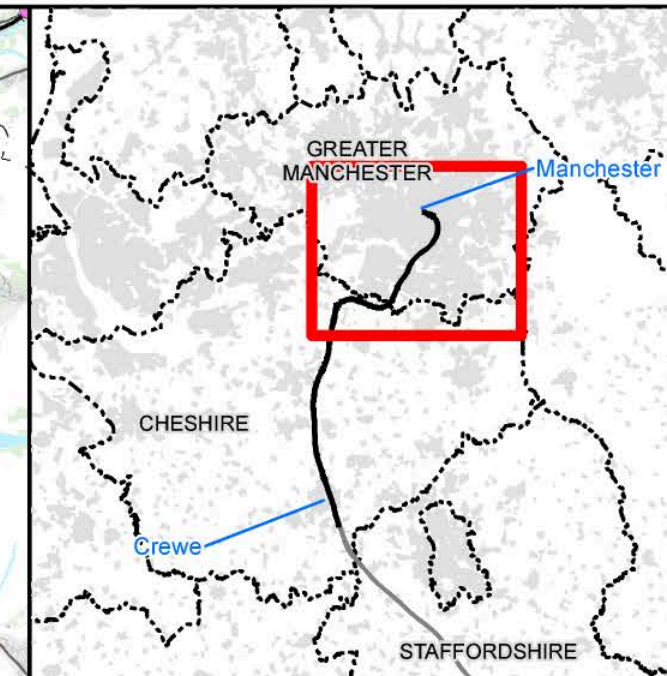
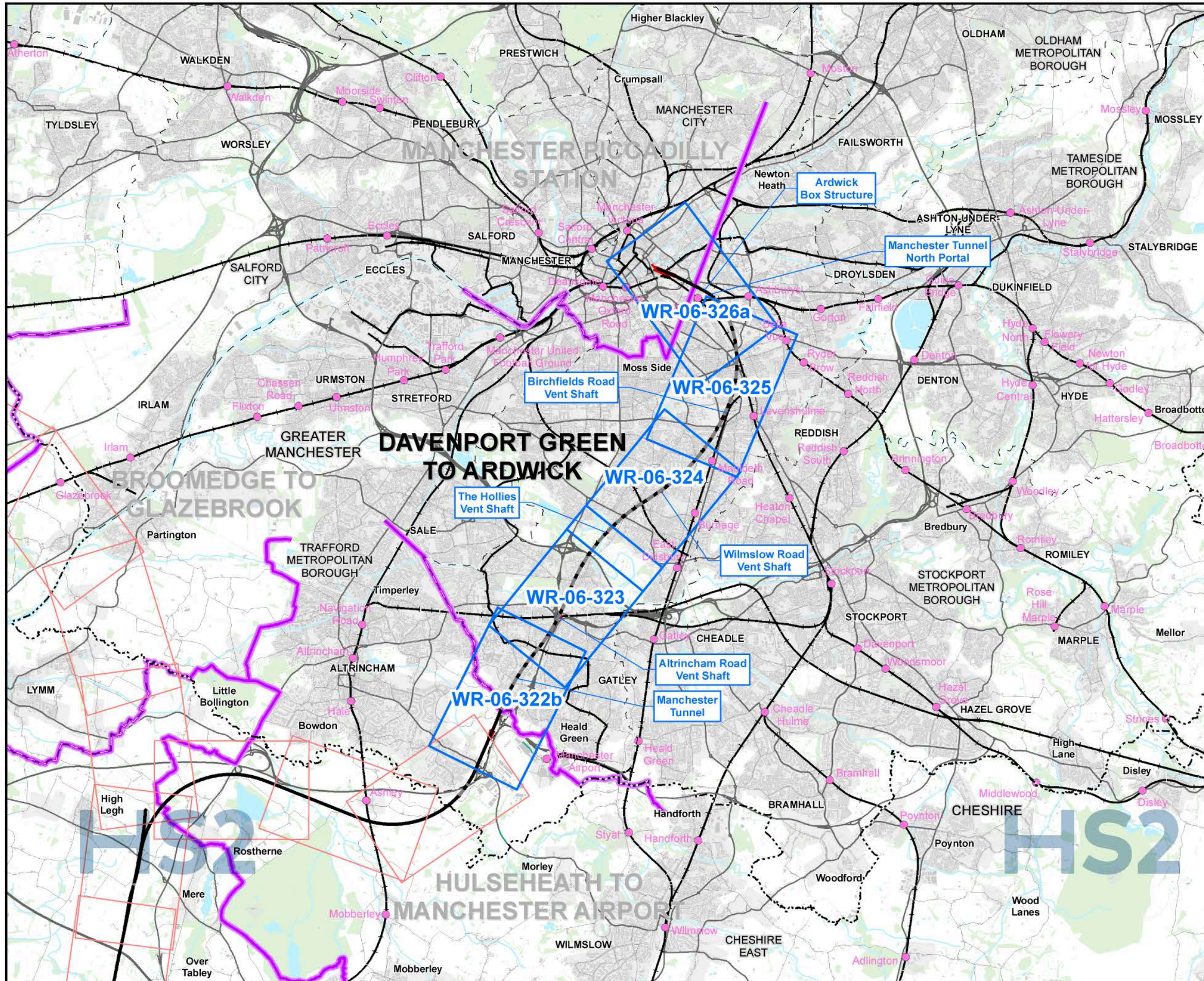
Doc Number: 2PT27-MWJ-EV-MAP-M000-002327-P01

Date: 31/03/23

Scale at A3: 1:100,000

0 1,000 2,000 3,000 Metres

Note: Not all data layers in the legend are represented on every map.



Map Series Information:

The map shows the output from hydraulic modelling of specific crossing locations and the effect the Proposed Scheme has on flood extent at 1 in 20 year return period.

- Main Map Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Community area boundary
 - Existing railway station
 - County boundary
 - District/Borough boundary
 - Map sheets included in this community area
 - Map sheets included in this community with no amendment
 - Map sheets not included in this community area

Map Number **WR-06-INDEX-MA07**

Map Name **Index Map of:
Modelled Baseline and Post Development Flood
Extent 1 in 20 (5%) Annual Probability of River
Flooding
SES2 and AP2 ES
Community Area MA07:
Davenport Green to Ardwick**

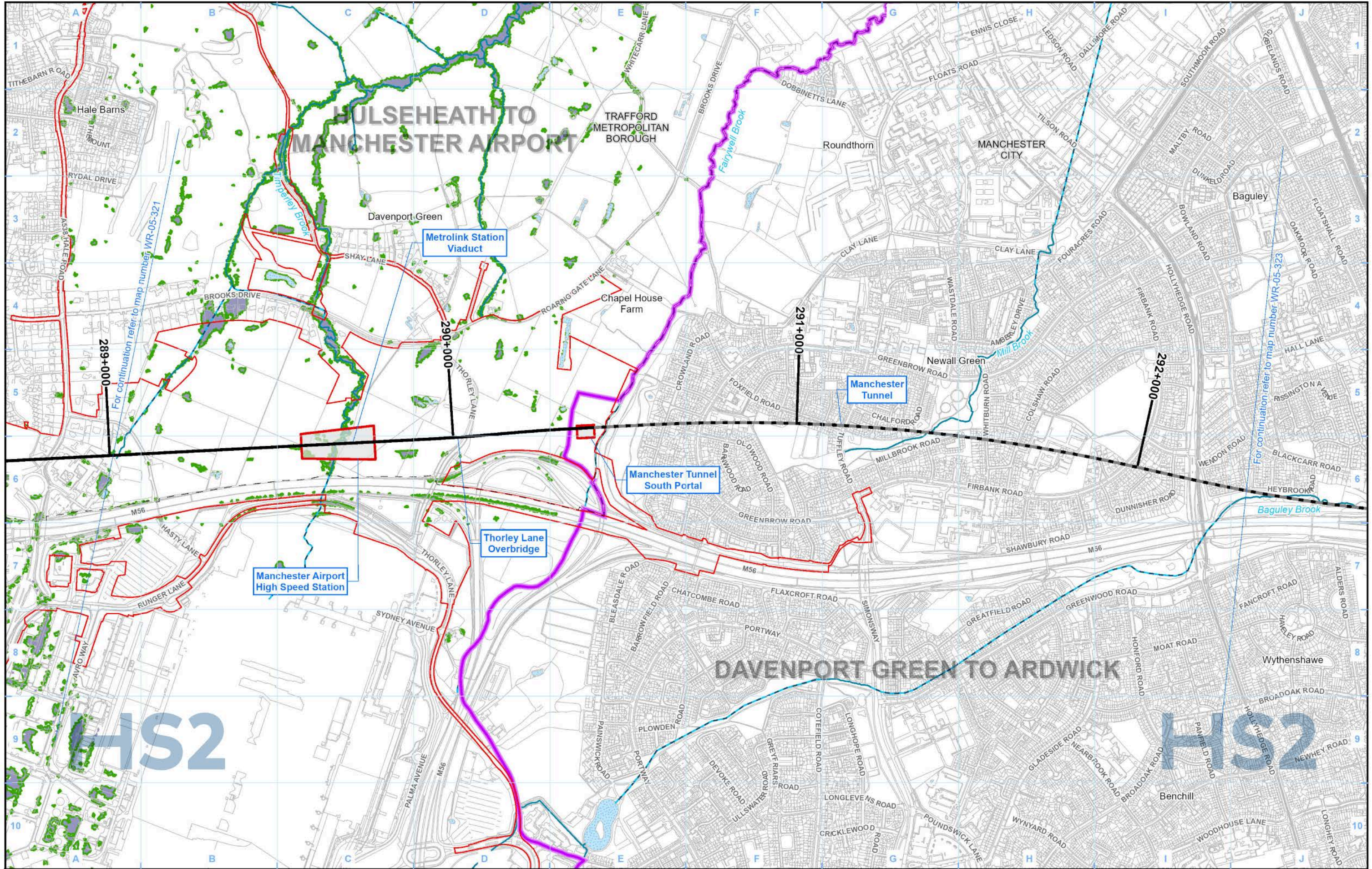
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- Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Land potentially required during construction
 - Community area boundary
 - County boundary
 - District/Borough boundary

- Watercourse
- Culverted watercourse
- Canal
- Canal tunnel
- Open water

- Modelled Baseline Flood Extent 1 in 100 (1%+CC) including Climate Change (UKCP18) Annual Probability of River Flooding
- Modelled Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change (UKCP18) Annual Probability of River Flooding

Map Number: WR-05-322b

Map Name: Modelled Baseline and Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change Annual Probability of River Flooding SES2 and AP2 ES

Community Area MA07: Davenport Green to Ardwick

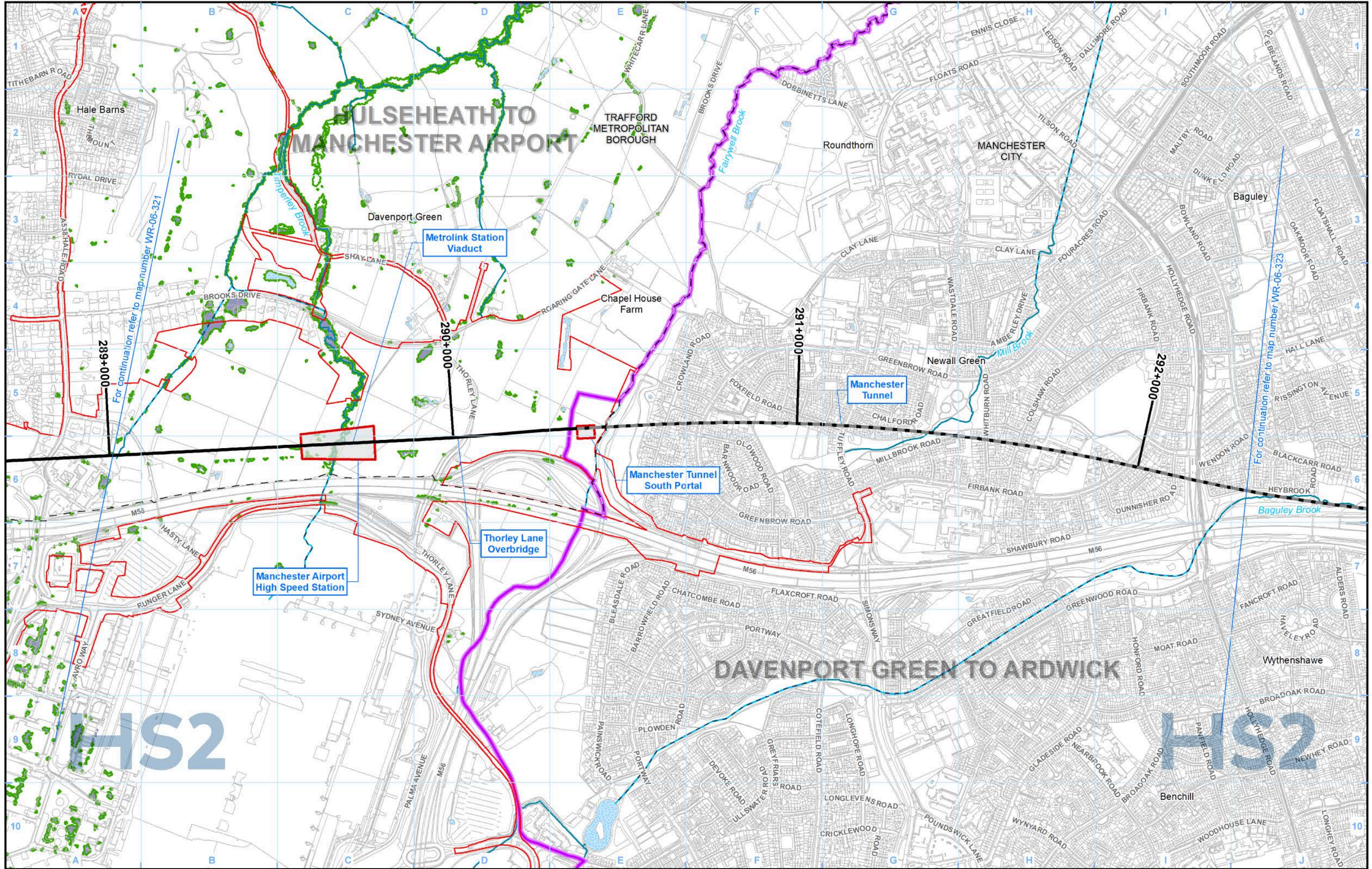
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Date: 31/03/23



Legend			
	Route in tunnel		Modelled Baseline Flood Extent 1 in 20 (5% Annual Probability of River Flooding)
	Route on surface		Modelled Post Development Flood Extent 1 in 20 (5% Annual Probability of River Flooding)
	Depot, station, headhouse or portal building		Canal
	Land potentially required during construction		Canal tunnel
	Community area boundary		Open water
	County boundary		
	District/Borough boundary		

Map Number	WR-06-322b
Map Name	Modelled Baseline and Post Development Flood Extent 1 in 20 (5% Annual Probability of River Flooding) SES2 and AP2 ES Community Area MA07: Davenport Green to Ardwick

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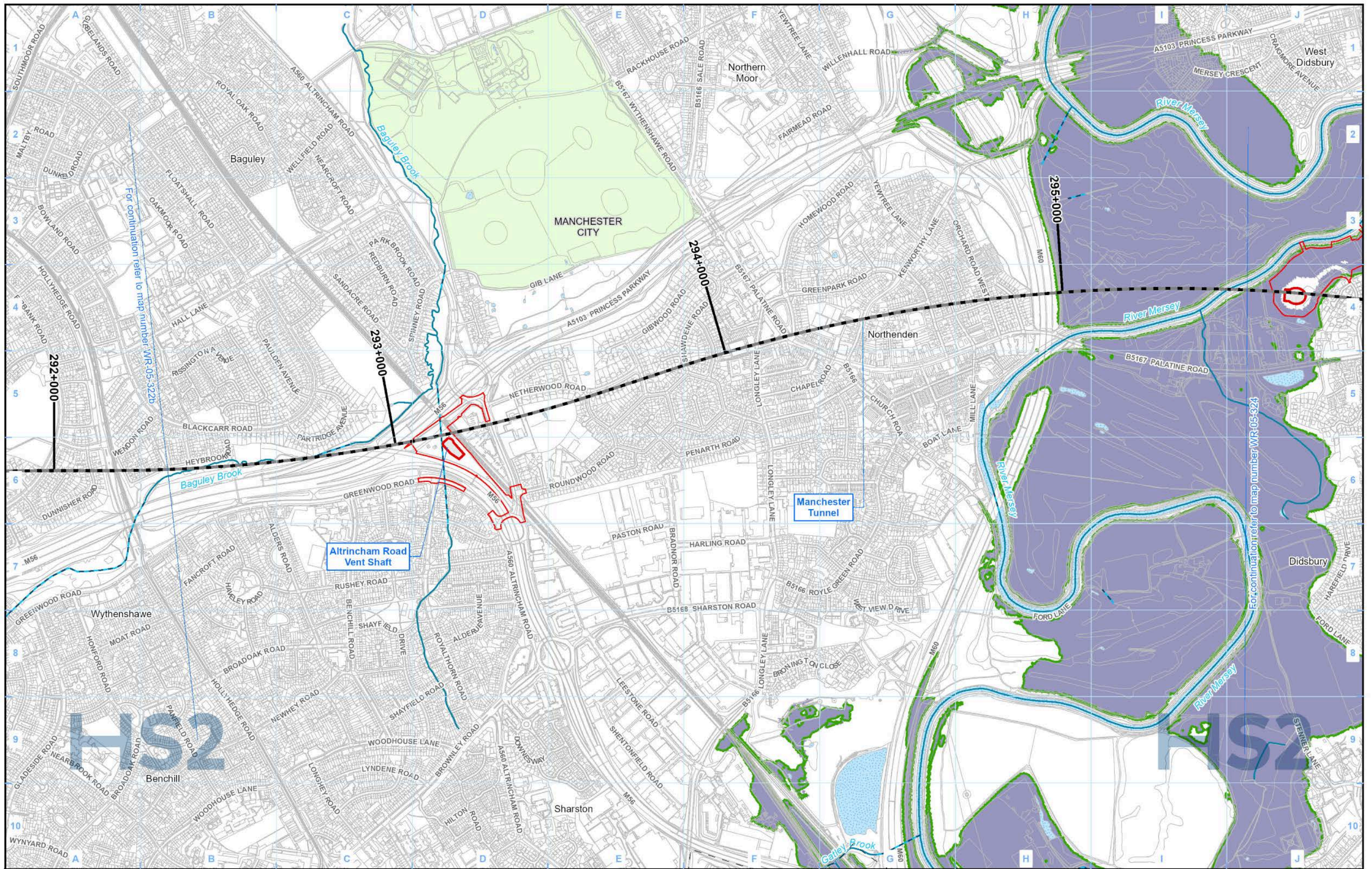
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Metres

Date: 30/03/23



- Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Land potentially required during construction
 - Community area boundary
 - County boundary
 - District/Borough boundary
 - Watercourse
 - Culverted watercourse
 - Canal
 - Canal tunnel
 - Open water
 - Modelled Baseline Flood Extent 1 in 100 (1%+CC) including Climate Change (UKCP18) Annual Probability of River Flooding
 - Modelled Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change (UKCP18) Annual Probability of River Flooding

Map Number: **WR-05-323**

Map Name: **Modelled Baseline and Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change Annual Probability of River Flooding SES2 and AP2 ES**

Community Area MA07: **Davenport Green to Ardwick**

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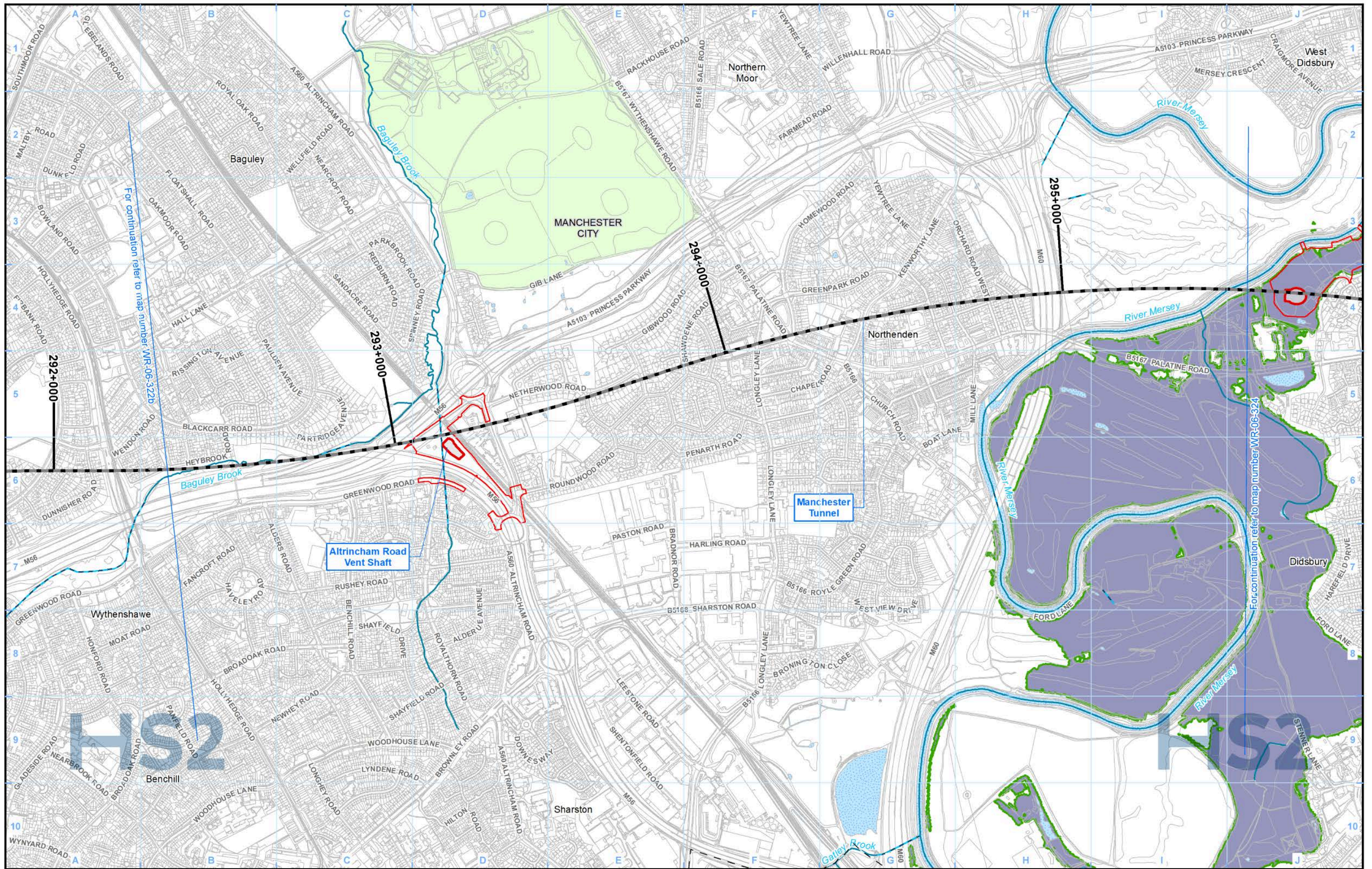
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Date: **31/03/23**



- Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Land potentially required during construction
 - Community area boundary
 - County boundary
 - District/Borough boundary
 - Watercourse
 - Culverted watercourse
 - Canal
 - Canal tunnel
 - Open water
 - Modelled Baseline Flood Extent 1 in 20 (5%) Annual Probability of River Flooding
 - Modelled Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding

Map Number: **WR-06-323**

Map Name: **Modelled Baseline and Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding SES2 and AP2 ES**

Community Area MA07: **Davenport Green to Ardwick**

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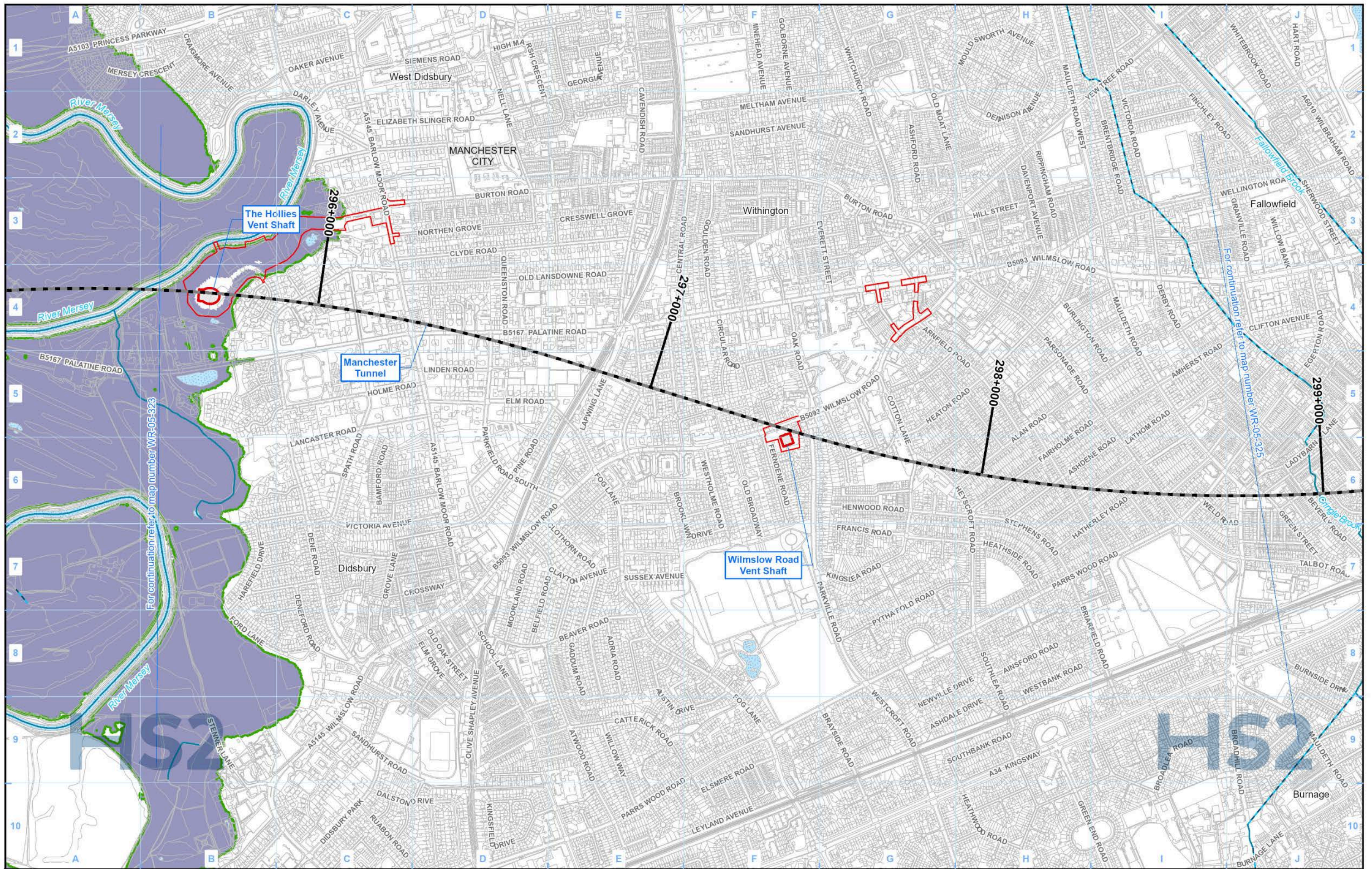
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Date: **30/03/23**



- Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Land potentially required during construction
 - Community area boundary
 - County boundary
 - District/Borough boundary
 - Watercourse
 - Culverted watercourse
 - Canal
 - Canal tunnel
 - Open water
 - Modelled Baseline Flood Extent 1 in 100 (1%+CC) including Climate Change (UKCP18) Annual Probability of River Flooding
 - Modelled Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change (UKCP18) Annual Probability of River Flooding

For continuation refer to map number WR-05-323

For continuation refer to map number WR-05-325

Map Number: WR-05-324

Map Name: Modelled Baseline and Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change Annual Probability of River Flooding SES2 and AP2 ES

Community Area MA07: Davenport Green to Ardwick

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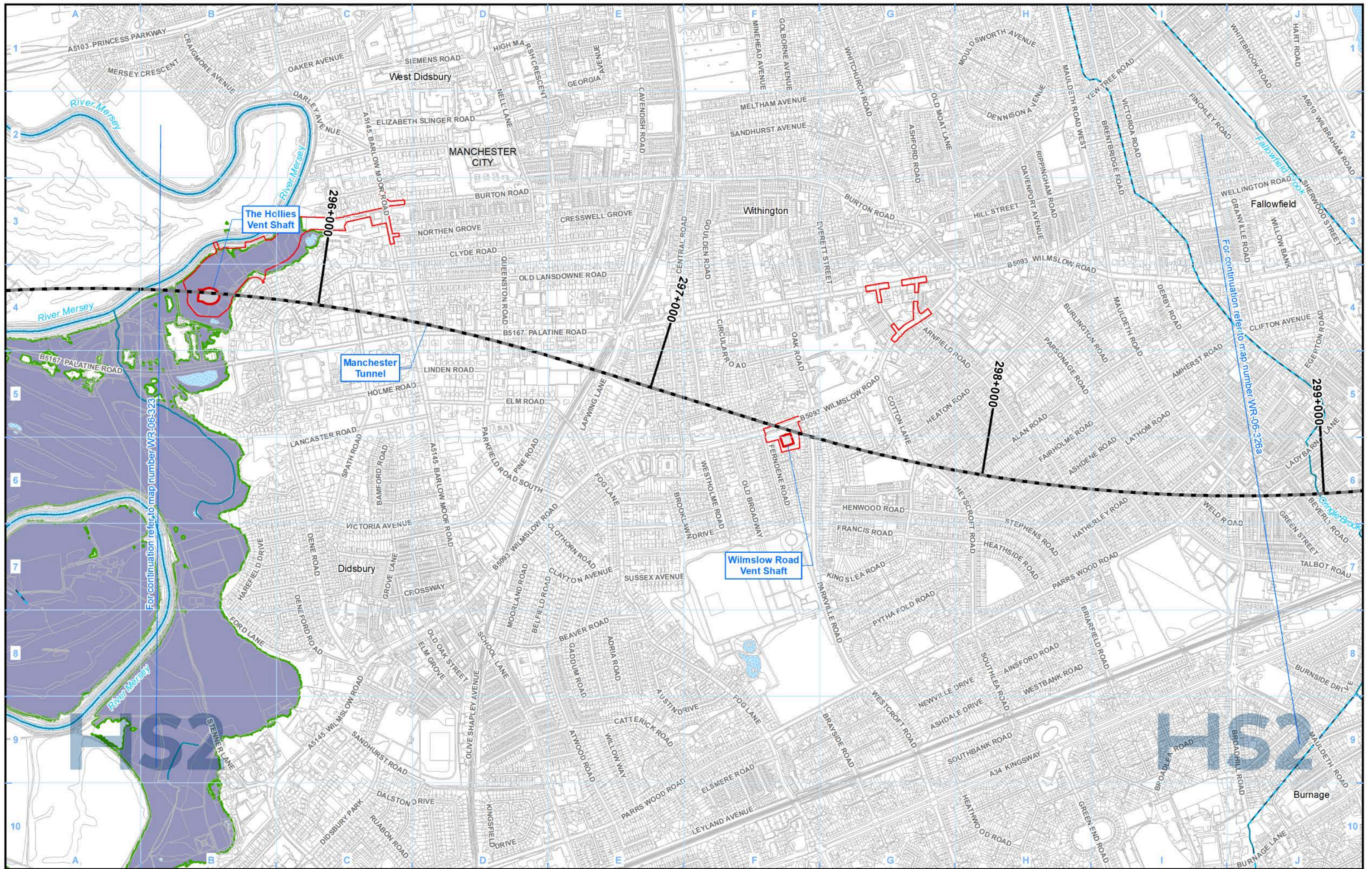
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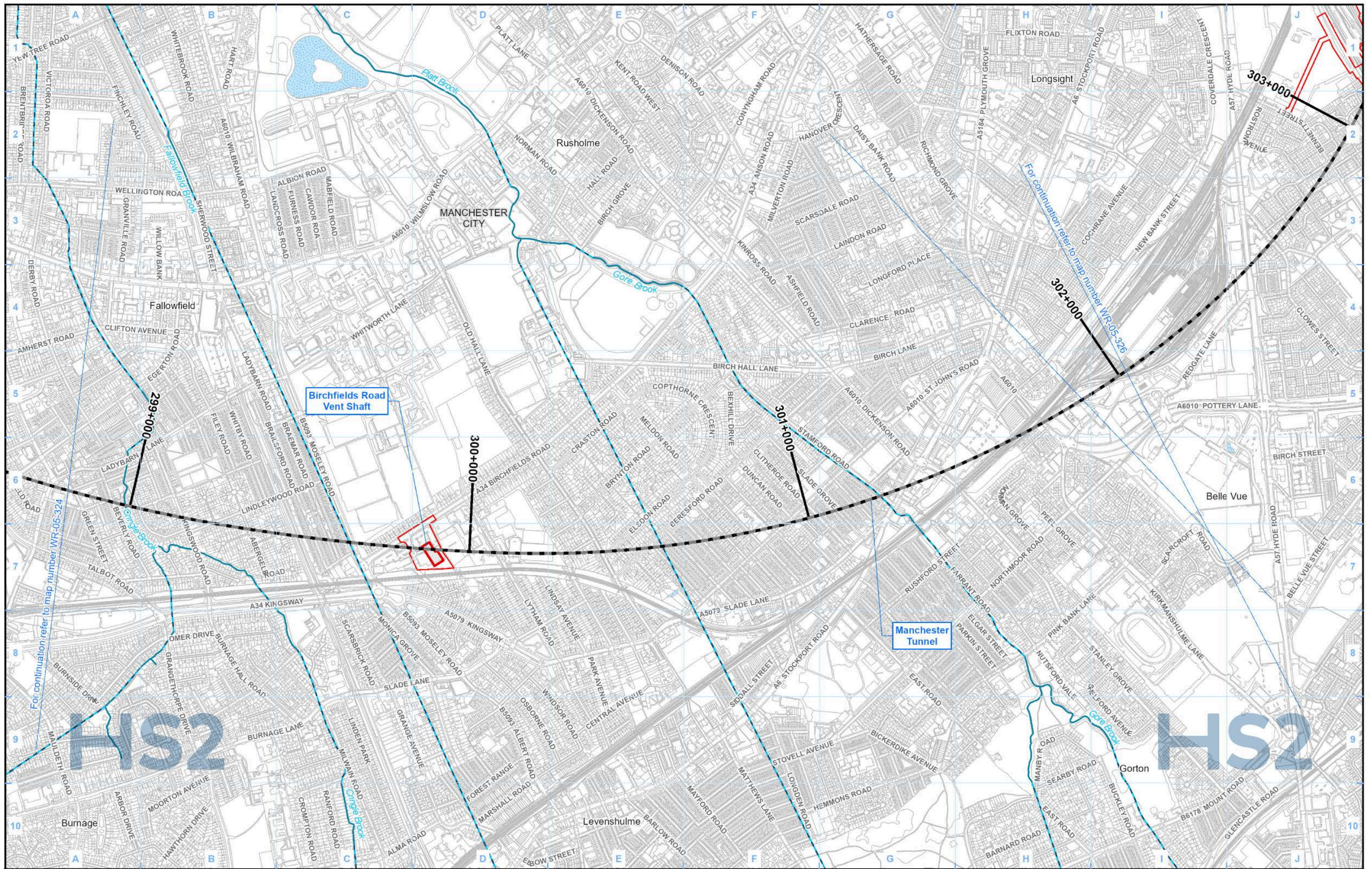
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0 100 200 300 400 Metres

Date: 31/03/23



Legend <ul style="list-style-type: none"> Route in tunnel Route on surface Depot, station, headhouse or portal building Land potentially required during construction Community area boundary County boundary District/Borough boundary Watercourse Culverted watercourse Canal Canal tunnel Open water Modelled Baseline Flood Extent 1 in 20 (5%) Annual Probability of River Flooding Modelled Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding 		<p>Map Number: WR-06-324</p> <p>Map Name: Modelled Baseline and Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding SES2 and AP2 ES</p> <p>Community Area MA07: Davenport Green to Ardwick</p>	<p>HS2</p> <p>Registered in England. Registration number 06791686. Registered office: 2 Snowhill, Queensway, Birmingham B4 6QA.</p> <p>© Crown copyright and database rights 2022 OS 100049190</p> <p>Scale at A3: 1:10,000</p> <p>Doc Number: 2PT27-MWJ-EV-MAP-M000-002360-P01</p> <p>Date: 30/03/23</p>
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Legend	
	Route in tunnel
	Route on surface
	Depot, station, headhouse or portal building
	Land potentially required during construction
	Community area boundary
	County boundary
	District/Borough boundary
	Watercourse
	Culverted watercourse
	Canal
	Canal tunnel
	Open water
	Modelled Baseline Flood Extent 1 in 100 (1%+CC) including Climate Change (UKCP18) Annual Probability of River Flooding
	Modelled Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change (UKCP18) Annual Probability of River Flooding

Map Number	WR-05-325
Map Name	Modelled Baseline and Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change Annual Probability of River Flooding SES2 and AP2 ES
Community Area MA07: Davenport Green to Ardwick	

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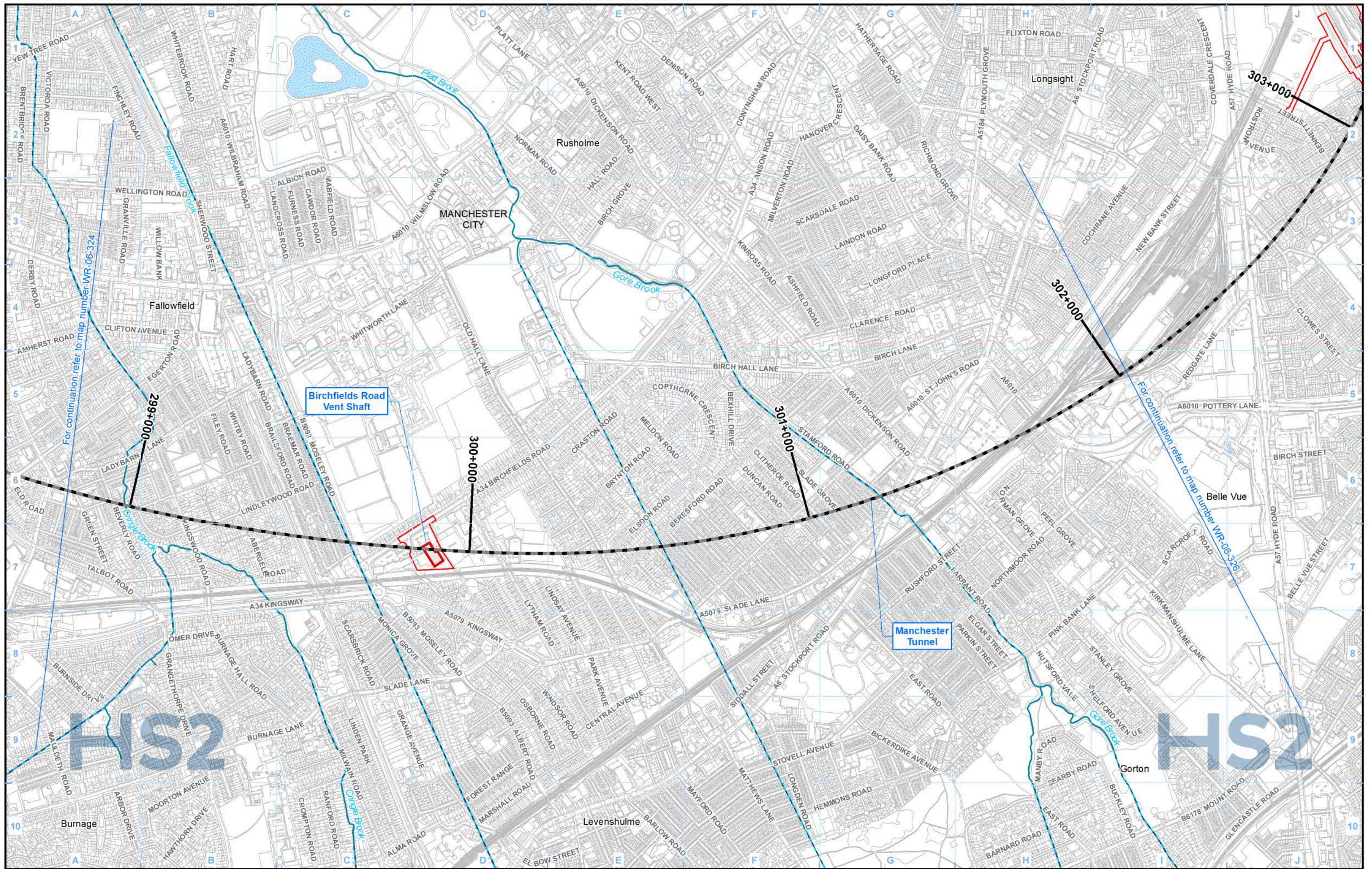
Doc Number: 2PT27-MWJ-EV-MAP-M000-002315-P01

Scale at A3: 1:10,000

Metres

Date: 31/03/23

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Legend

- Route in tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Land potentially required during construction
- Community area boundary
- County boundary
- District/Borough boundary
- Watercourse
- Culverted watercourse
- Canal
- Canal tunnel
- Open water
- Modelled Baseline Flood Extent 1 in 20 (5%) Annual Probability of River Flooding
- Modelled Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding

Map Number: **WR-06-325**

Map Name: **Modelled Baseline and Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding SES2 and AP2 ES**

Community Area MA07: **Davenport Green to Ardwick**

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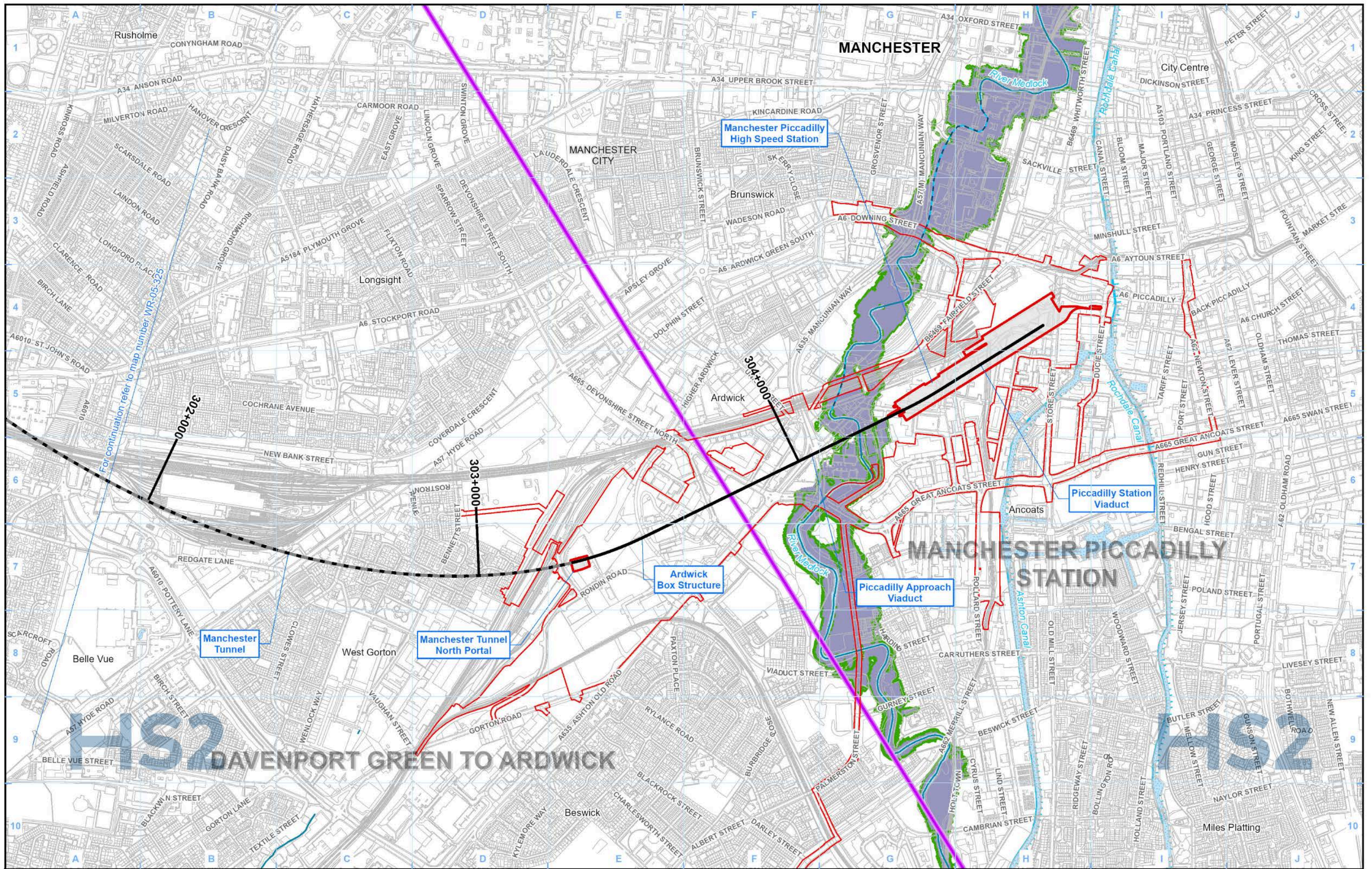
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Doc Number: **2PT27-MWJ-EV-MAP-M000-002361-P01**

Date: **30/03/23**



- Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Land potentially required during construction
 - Community area boundary
 - County boundary
 - District/Borough boundary
 - Watercourse
 - Culverted watercourse
 - Canal
 - Canal tunnel
 - Open water
 - Modelled Baseline Flood Extent 1 in 100 (1%+CC) including Climate Change (UKCP18) Annual Probability of River Flooding
 - Modelled Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change (UKCP18) Annual Probability of River Flooding

Map Number: WR-05-326a

Map Name: Modelled Baseline and Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change Annual Probability of River Flooding SES2 and AP2 ES

Community Area MA07: Davenport Green to Ardwick

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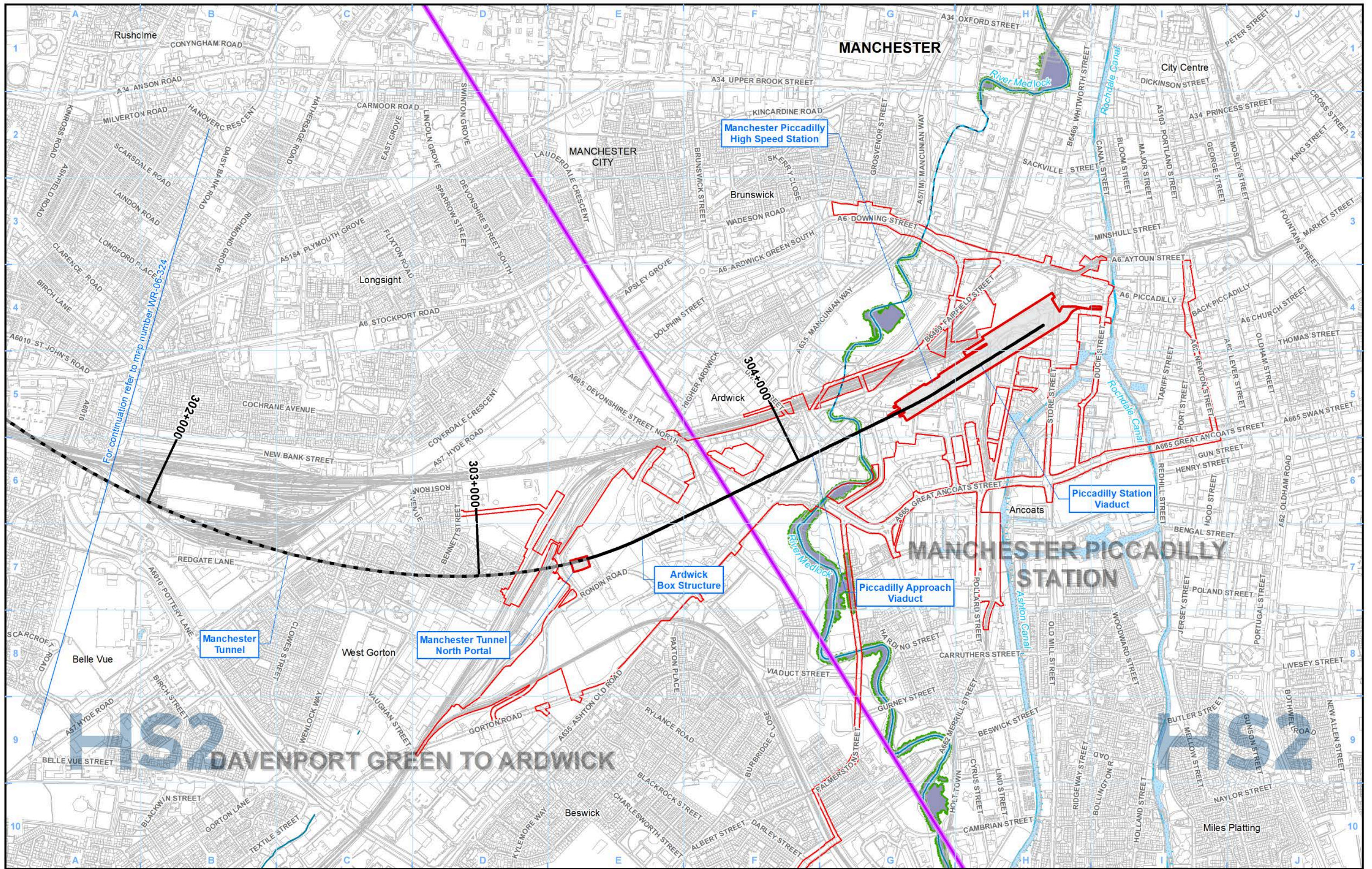
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Date: 31/03/23



Legend

- Route in tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Land potentially required during construction
- Community area boundary
- County boundary
- District/Borough boundary
- Watercourse
- Culverted watercourse
- Canal
- Canal tunnel
- Open water
- Modelled Baseline Flood Extent 1 in 20 (5%) Annual Probability of River Flooding
- Modelled Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding

Map Number: **WR-06-326a**

Map Name: **Modelled Baseline and Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding**

SES2 and AP2 ES

Community Area MA07: Davenport Green to Ardwick

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Doc Number: 2PT27-MWJ-EV-MAP-M000-002362-P01

Date: 30/03/23

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High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

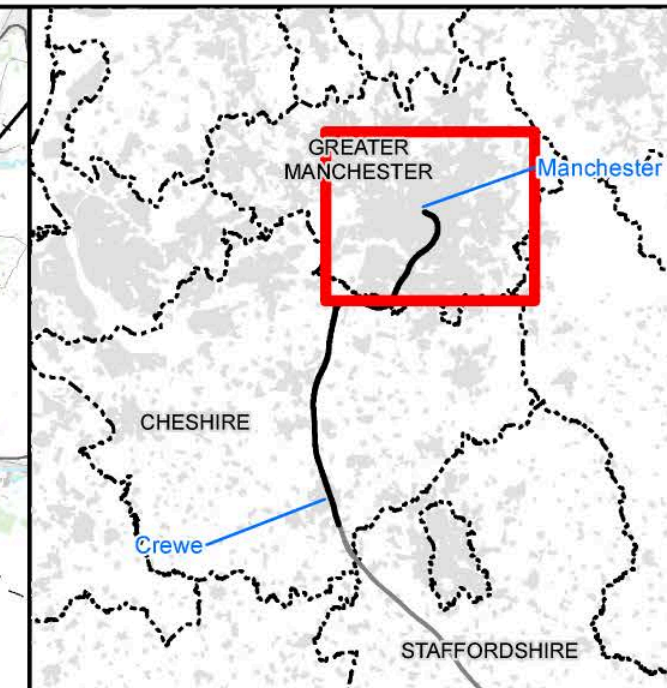
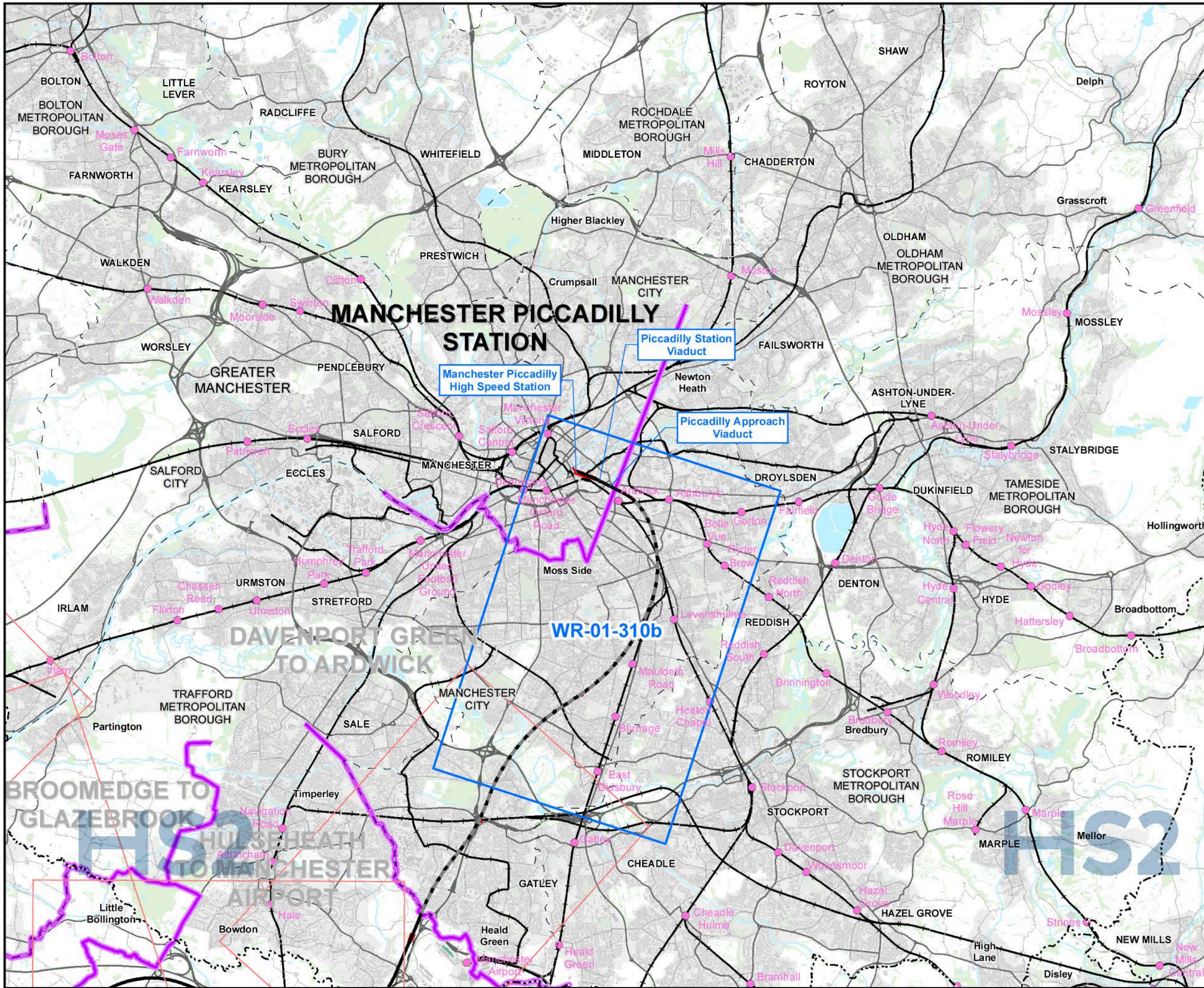
MA08: Manchester Piccadilly Station

WR-01 - Surface Water Baseline

WR-03 - Water Framework Directive

WR-05 - Modelled Baseline and Post Development Flood Extent 1 in 100 (1%CC) including Climate Change Annual Probability of River Flooding

WR-06 - Modelled Baseline and Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding



Map Series Information:

This map series shows surface water features such as rivers, streams, ponds, canals and reservoirs, flood zones, and surface water abstractions. The design of the Proposed Scheme will be informed through stakeholder engagement and further engineering and environmental studies.

Main Map Legend

Map Number	WR-01-INDEX-MA08
Map Name	Index Map of: Surface Water Baseline SES2 and AP2 ES Community Area MA08: Manchester Piccadilly Station

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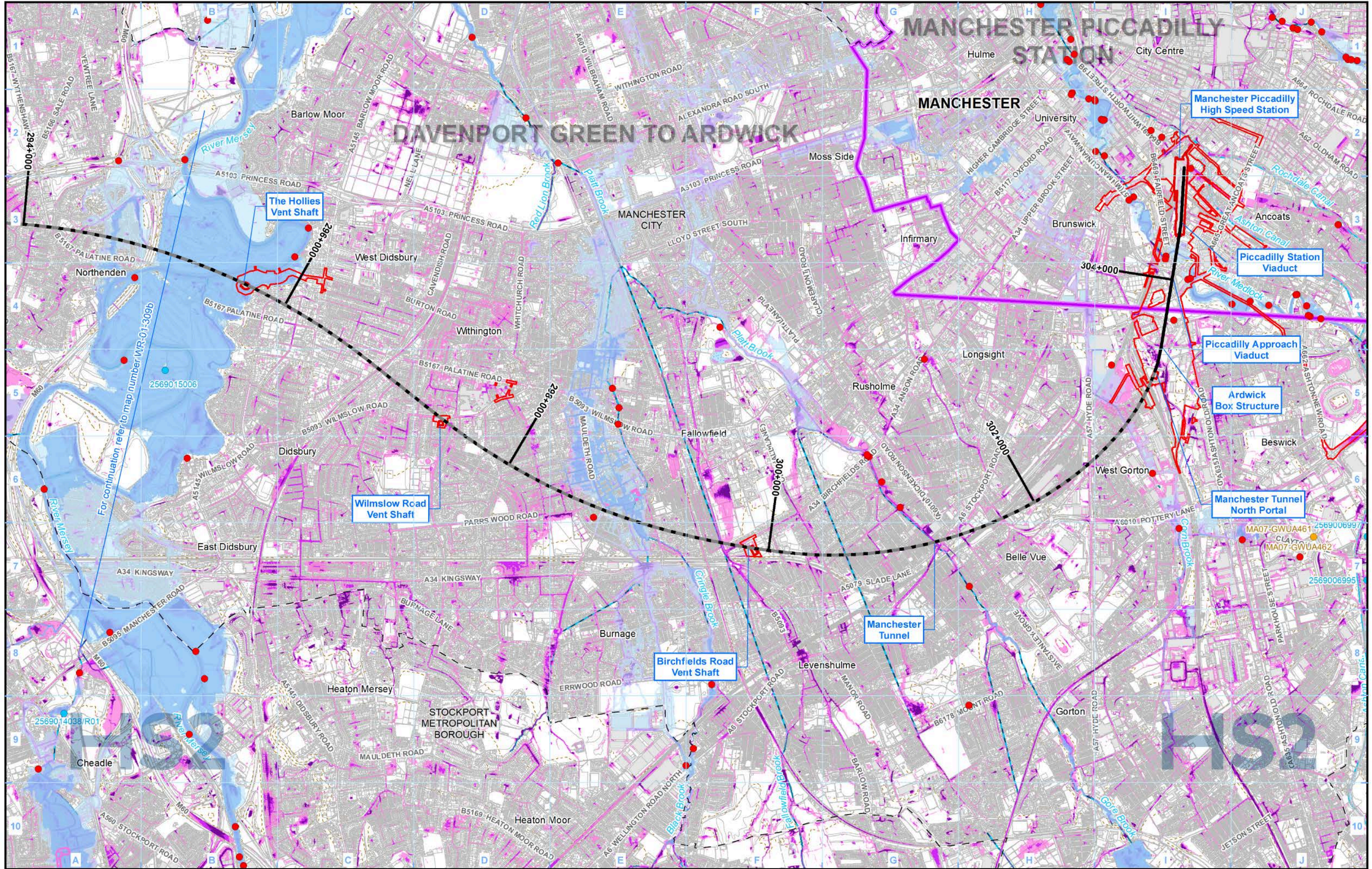
Doc Number: 2PT27-MWJ-EV-MAP-M000-000311-P01

Date: 30/03/23

Note: Not all data layers in the legend are represented on every map.

DAVENPORT GREEN TO ARDWICK

MANCHESTER PICCADILLY STATION



- Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Land potentially required during construction
 - Community area boundary
 - County boundary
 - District/Borough boundary
 - Licensed surface water abstraction (excluding public water supplies)
 - Unlicensed private surface water abstraction
 - Consented discharge to surface water
 - Airport
 - Watercourse
 - Culverted watercourse
 - Canal
 - Canal tunnel
 - Lakes & Reservoirs
 - Historic flooding area
 - Fluvial flood risk: Flood Zone 2
 - Fluvial flood risk: Flood Zone 3
 - Risk of Flooding from Surface Water: High - chance of flooding greater than 1 in 30 (3.33%)
 - Risk of Flooding from Surface Water: Medium - chance of flooding between 1 in 100 (1%) and 1 in 30 (3.33%)
 - Risk of Flooding from Surface Water: Low - chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)

Map Number: WR-01-310b

Map Name: Surface Water Baseline SES2 and AP2 ES

Community Area MA08: Manchester Piccadilly Station

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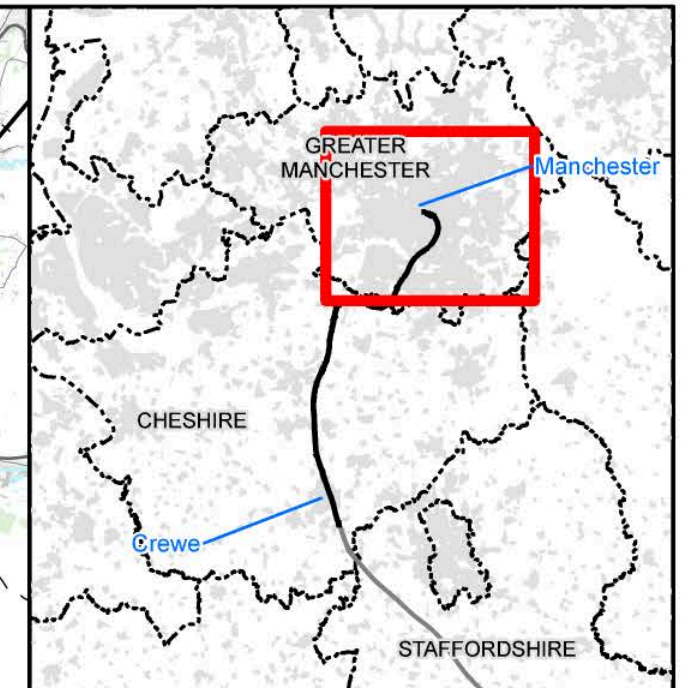
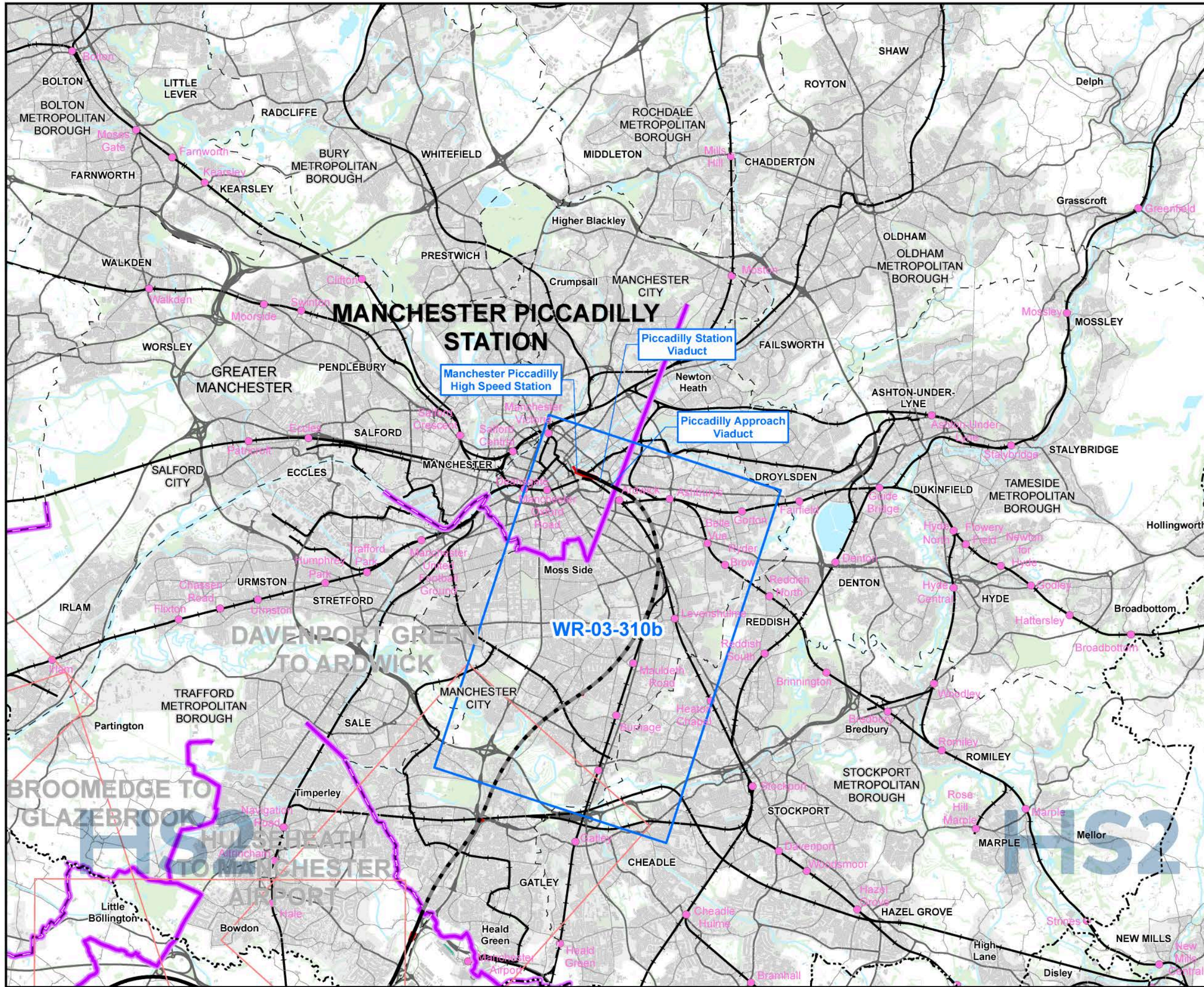
Doc Number: 2PT27-MWJ-EV-MAP-M000-000305-P01

Date: 30/03/23

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Map Series Information:

This map series shows water bodies, their Water Framework Directive current status and associated ecological features.

- Main Map Legend**
- Route in tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Community area boundary
 - Existing railway station
 - County boundary
 - District/Borough boundary
 - Map sheets included in this community area
 - Map sheets included in this community with no amendment
 - Map sheets not included in this community area

Map Number: WR-03-INDEX-MA08
 Map Name: Index Map of: Water Framework Directive SES2 and AP2 ES
 Community Area MA08: Manchester Piccadilly Station

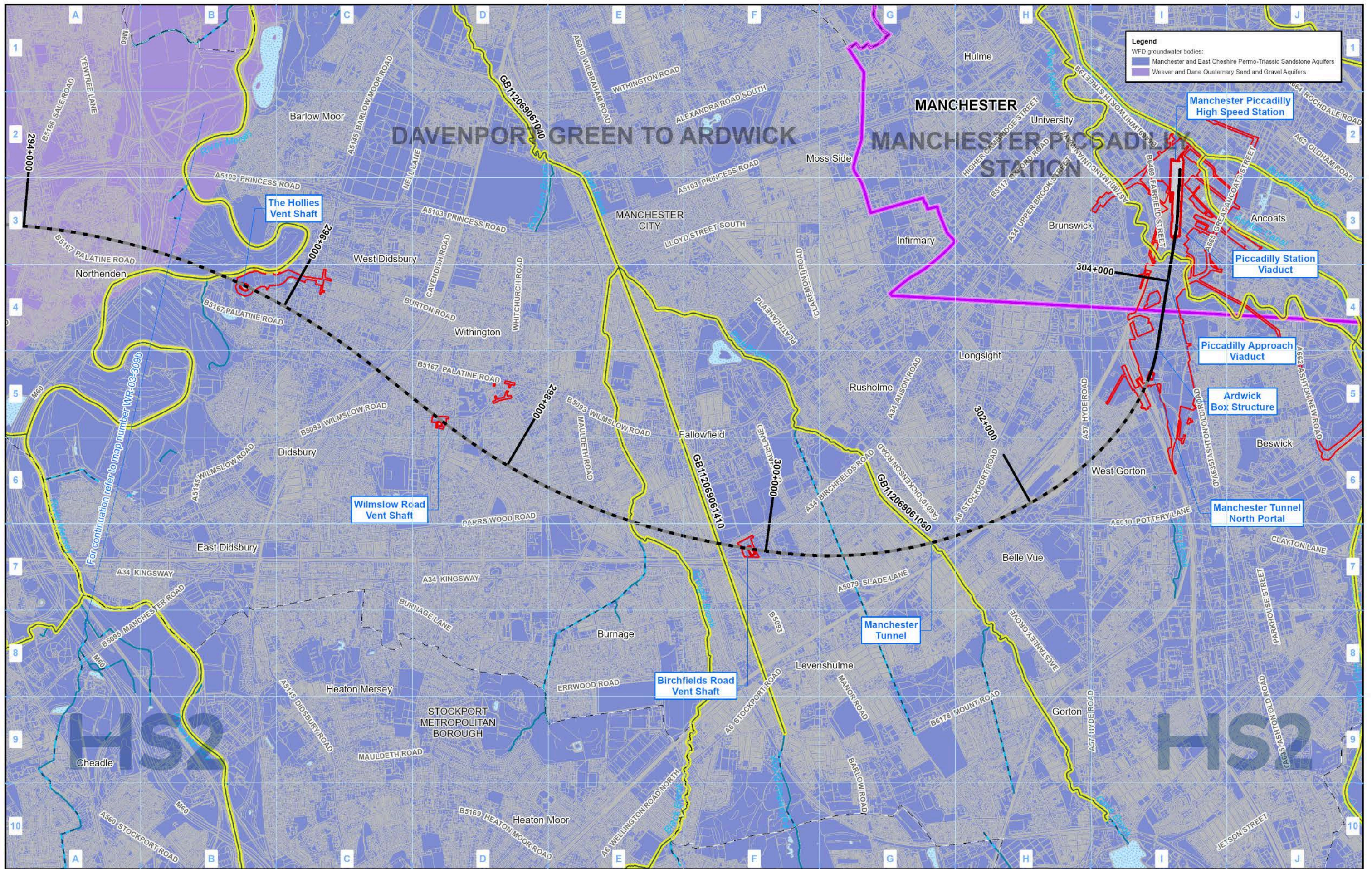
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002282-P01 Date: 11/04/23

Note: Not all data layers in the legend are represented on every map.



Legend
 WFD groundwater bodies:
 Manchester and East Cheshire Permo-Triassic Sandstone Aquifers
 Weaver and Dane Quaternary Sand and Gravel Aquifers

Legend

- Route in tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Land potentially required during construction
- Community area boundary
- County boundary
- District/Borough boundary
- Canal
- Canal tunnel
- Watercourse
- Culverted watercourse
- Lakes & Reservoirs
- Airport

WFD Surface Water Bodies
 Overall Status Classification (2015 RBMP Cycle 2):

- Good
- Moderate
- Poor
- Bad

WFD Lakes
 Overall Status:

- Good
- Moderate
- Poor
- Bad

Special Areas of Conservation (SAC)
Sites of Special Scientific Interest (SSSI)

Map Number: WR-03-310b
 Map Name: Water Framework Directive SES2 and AP2 ES
 Community Area MA08: Manchester Piccadilly Station

HS2

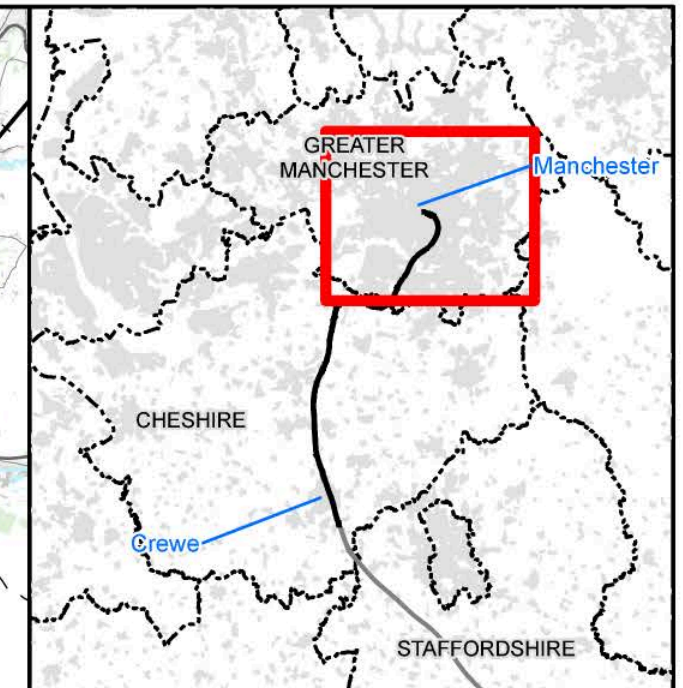
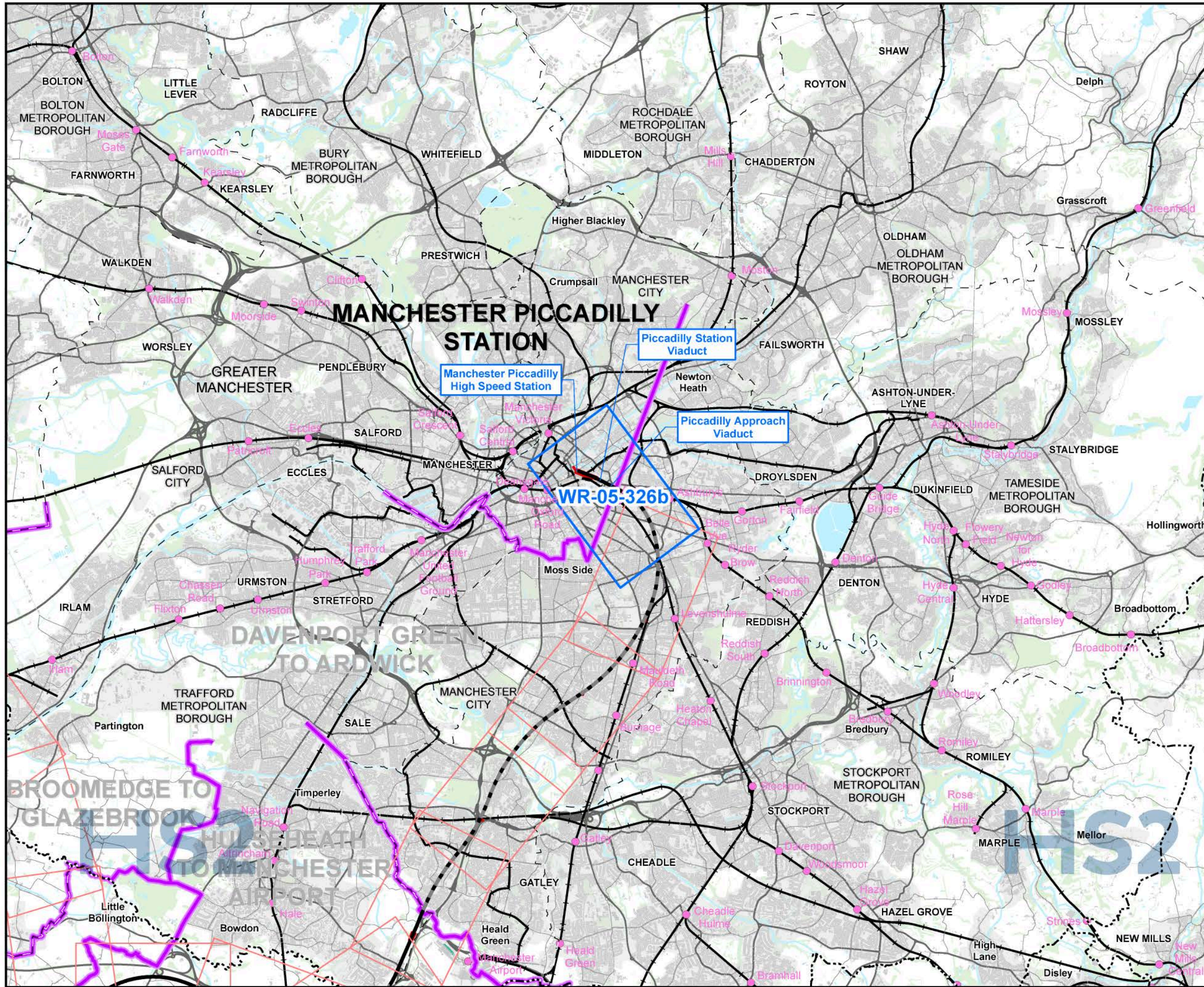
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002271-P01
 Date: 11/04/23



Map Series Information:

The map shows the output from hydraulic modelling of specific crossing locations and the effect the Proposed Scheme has on flood extent at 1 in 100 years return period inclusive of climate change.

Main Map Legend

- Route in tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Community area boundary
- Existing railway station
- County boundary
- District/Borough boundary
- Map sheets included in this community area
- Map sheets included in this community with no amendment
- Map sheets not included in this community area

Map Number **WR-05-INDEX-MA08**

Map Name
**Index Map of:
 Modelled Baseline and Post Development Flood Extent 1 in 100 including Climate Change (1%+CC)
 Annual Probability of River Flooding
 SES2 and AP2 ES
 Community Area MA08:
 Manchester Piccadilly Station**

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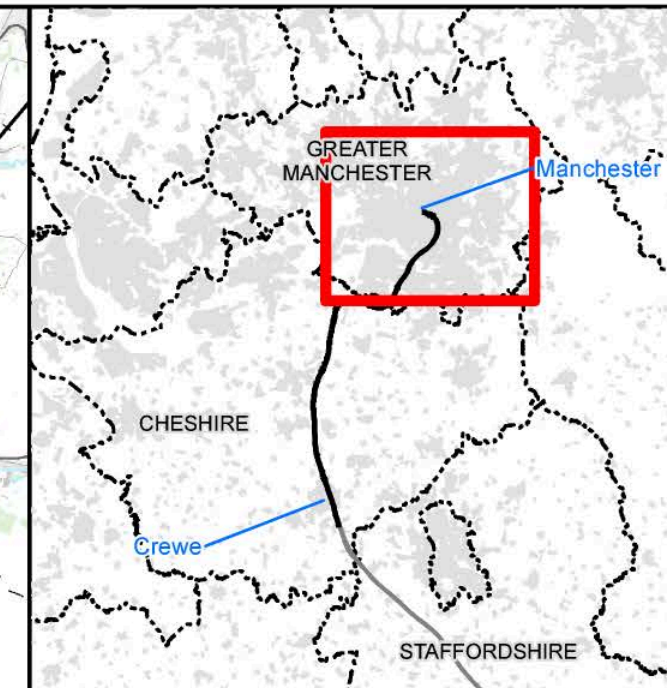
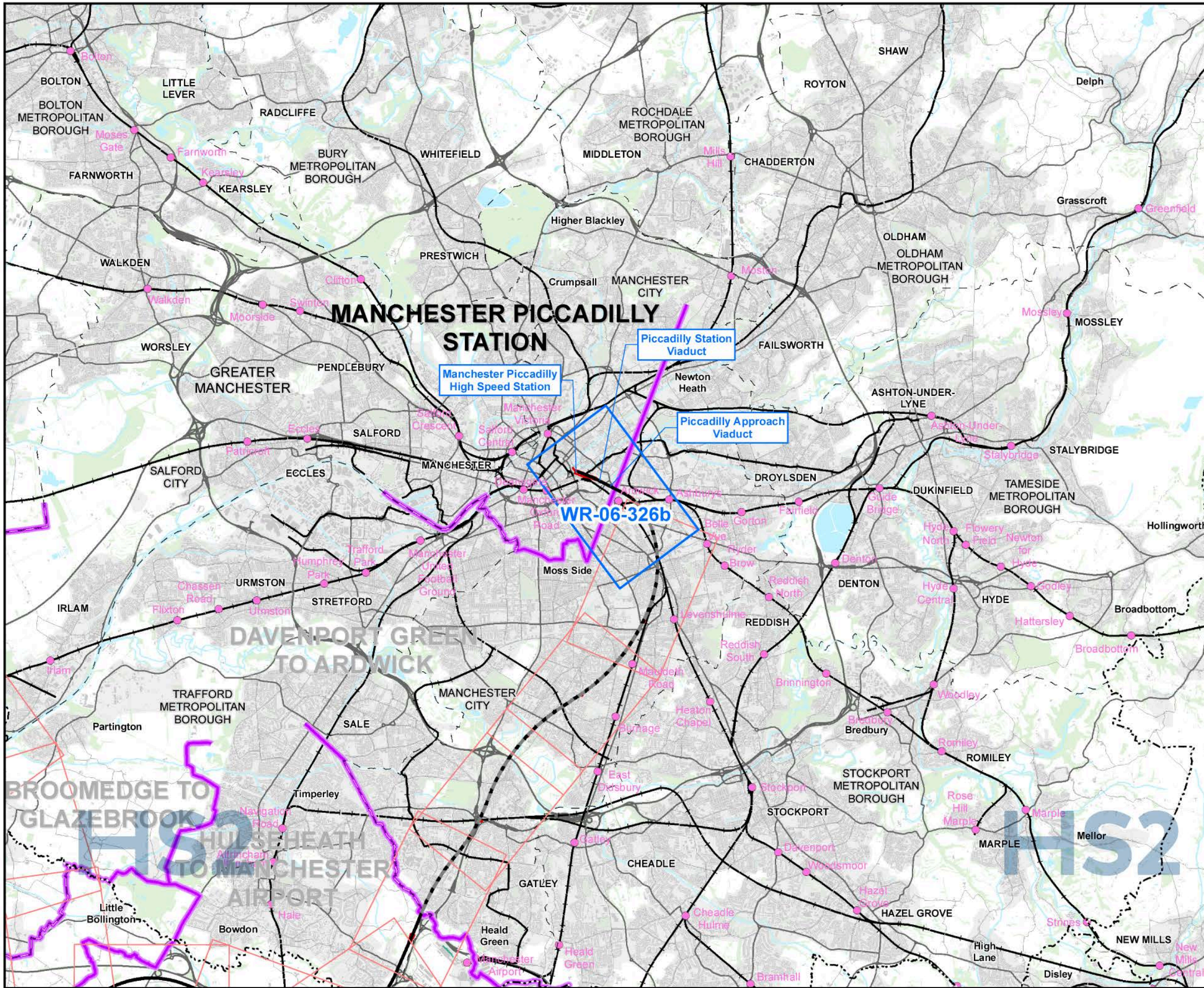
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0 1,000 2,000 3,000 Metres

Doc Number: 2PT27-MWJ-EV-MAP-M000-002328-P01 **Date: 30/03/23**



Map Series Information:

The map shows the output from hydraulic modelling of specific crossing locations and the effect the Proposed Scheme has on flood extent at 1 in 20 year return period.

Main Map Legend

- Route in tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Community area boundary
- Existing railway station
- County boundary
- District/Borough boundary
- Map sheets included in this community area
- Map sheets included in this community with no amendment
- Map sheets not included in this community area

Map Number	WR-06-INDEX-MA08
Map Name	Index Map of: Modelled Baseline and Post Development Flood Extent 1 in 20 (5% Annual Probability) of River Flooding SES2 and AP2 ES Community Area MA08: Manchester Piccadilly Station

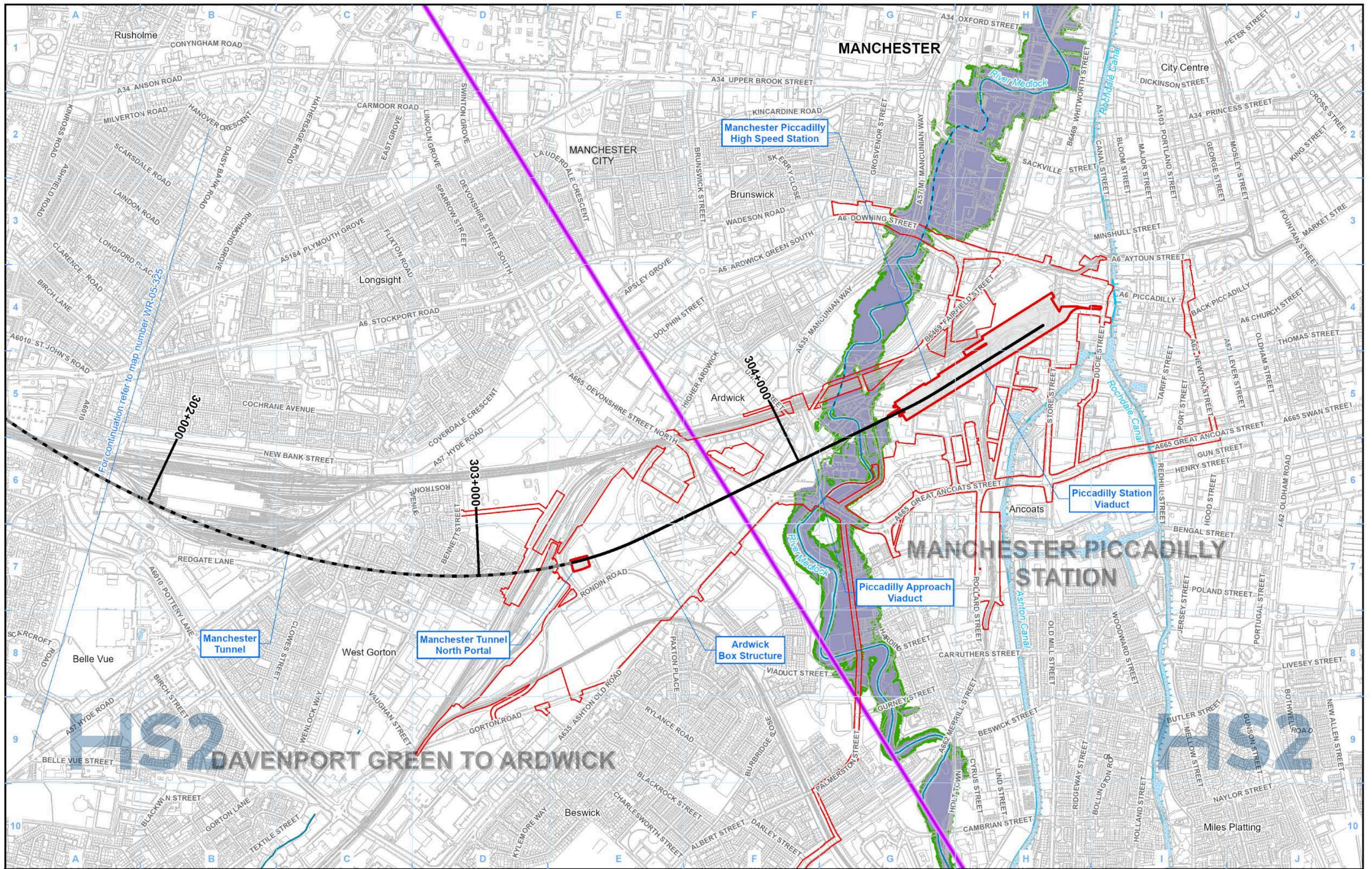
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002374-P01 **Date: 30/03/23**



Legend

Map Number	WR-05-326b
Map Name	Modelled Baseline and Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change Annual Probability of River Flooding SES2 and AP2 ES
Community Area	MA08: Manchester Piccadilly Station

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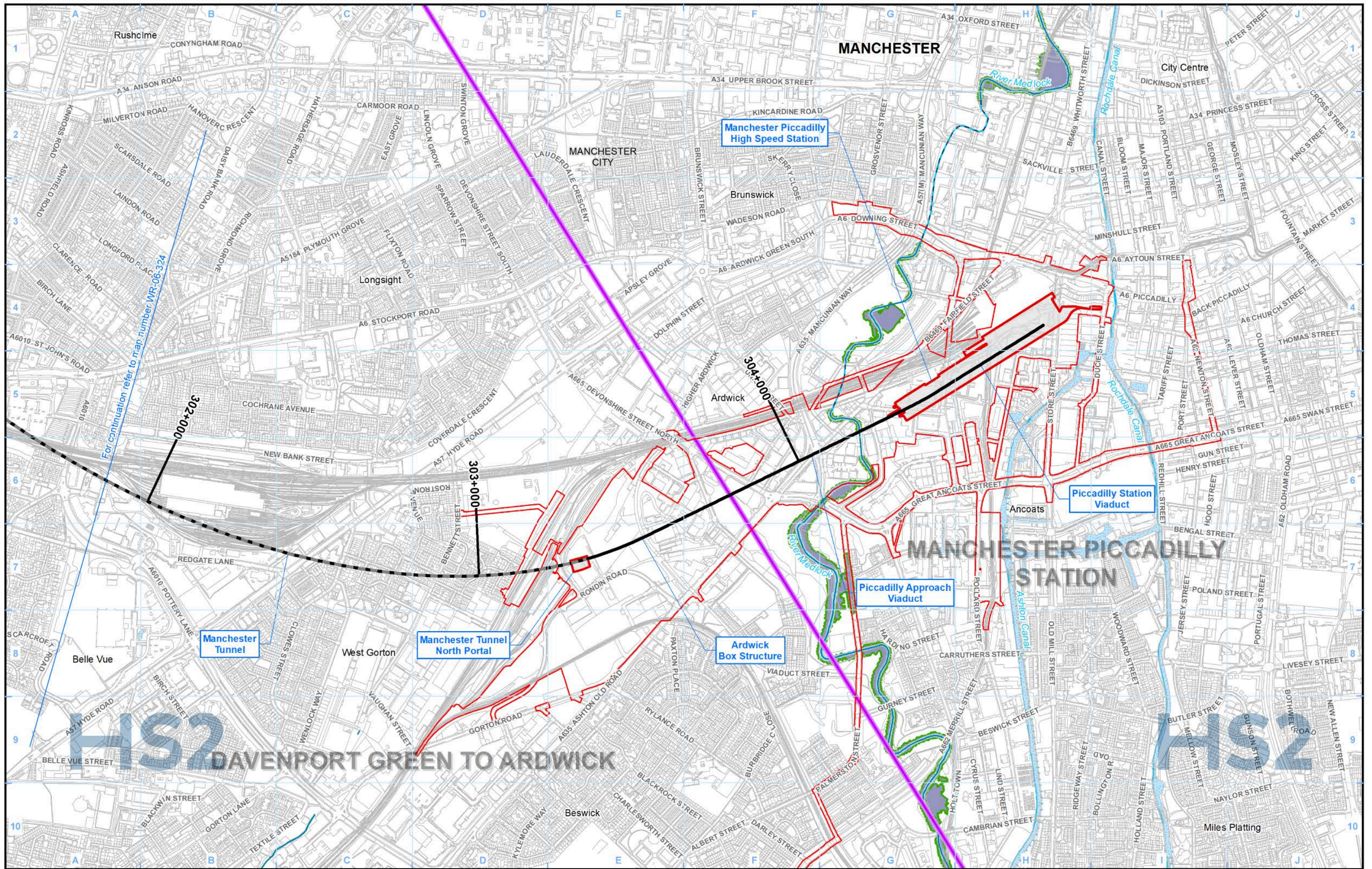
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002317-P01

Date: 30/03/23

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Legend			
	Route in tunnel		Modelled Baseline Flood Extent 1 in 20 (5%) Annual Probability of River Flooding
	Route on surface		Modelled Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding
	Depot, station, headhouse or portal building		Canal
	Land potentially required during construction		Open water
	Community area boundary		
	County boundary		
	District/Borough boundary		

Map Number	WR-06-326b
Map Name	Modelled Baseline and Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding SES2 and AP2 ES Community Area MA08: Manchester Piccadilly Station

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Doc Number: 2PT27-MWJ-EV-MAP-M000-002363-P01

Scale at A3: 1:10,000

Metres

Date: 30/03/23

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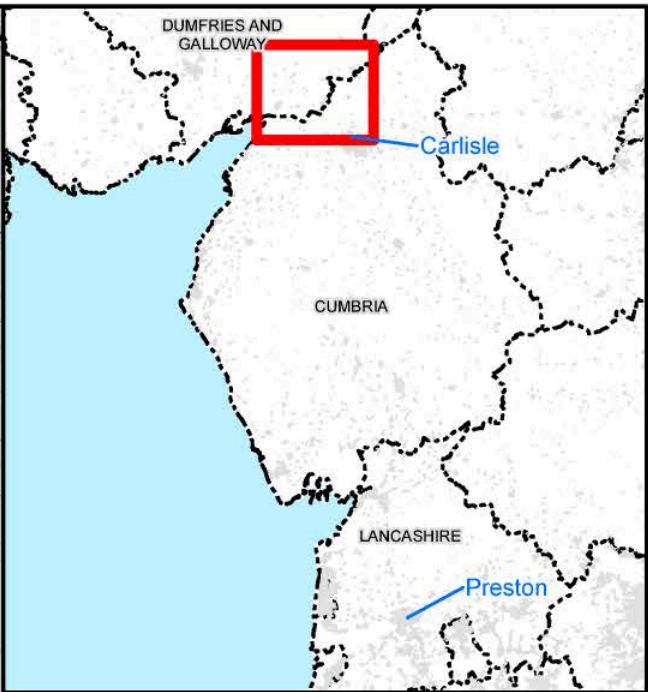
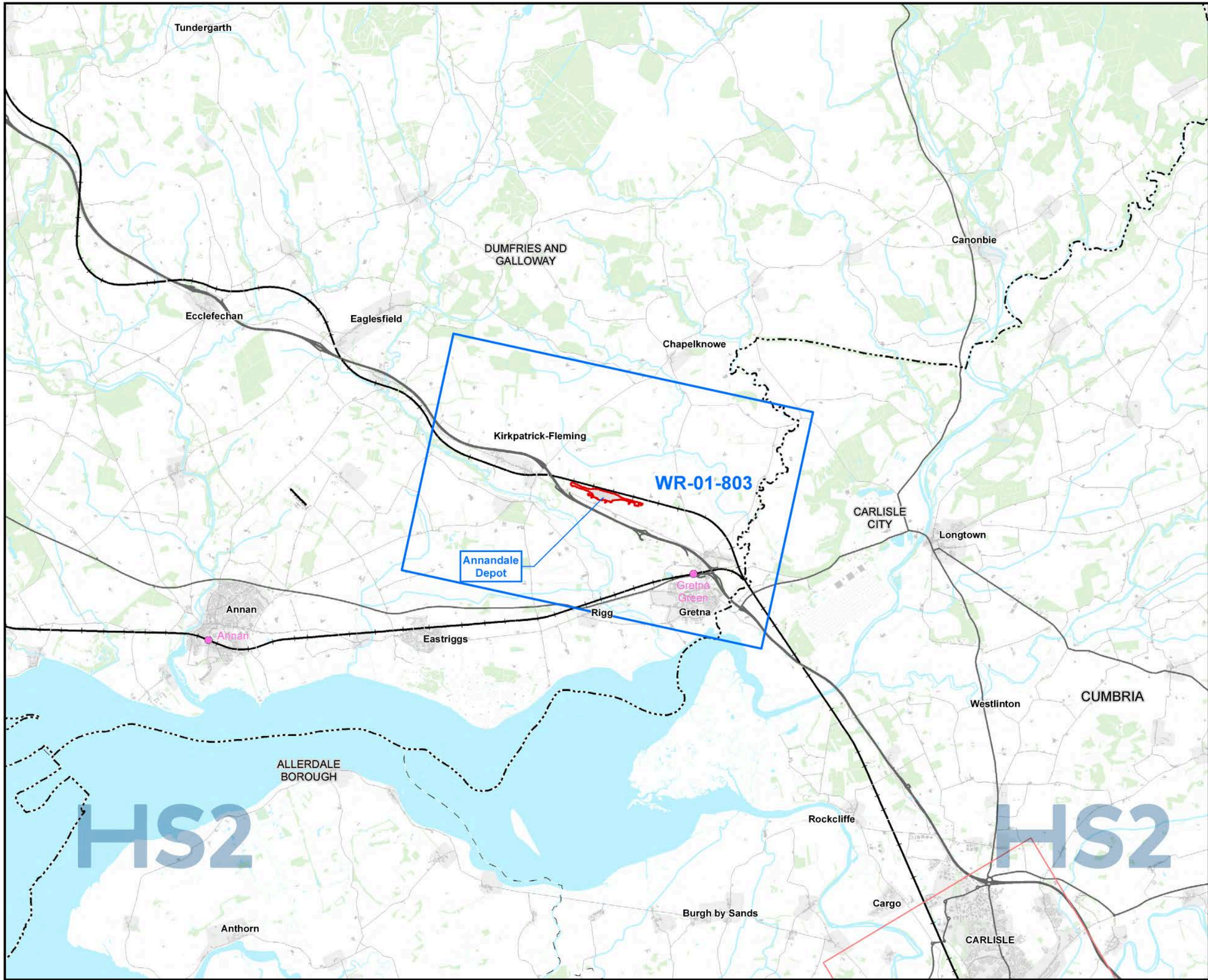
High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Annandale Depot

WR-01 - Surface Water Baseline

WR-03 - Water Framework Directive



Map Series Information:

This map series shows surface water features such as rivers, streams, ponds, canals and reservoirs, flood zones, and surface water abstractions. The design of the Proposed Scheme will be informed through stakeholder engagement and further engineering and environmental studies.

Main Map Legend

- Route in tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Community area boundary
- Existing railway station
- County boundary
- District/Borough boundary
- Map sheets included in this community area
- Map sheets included in this community with no amendment
- Map sheets not included in this community area

Map Number **WR-01-INDEX-ADEP**

Map Name
**Index Map of:
Surface Water Baseline
SES2 and AP2 ES**

Off-route ADEP:
Annandale Depot

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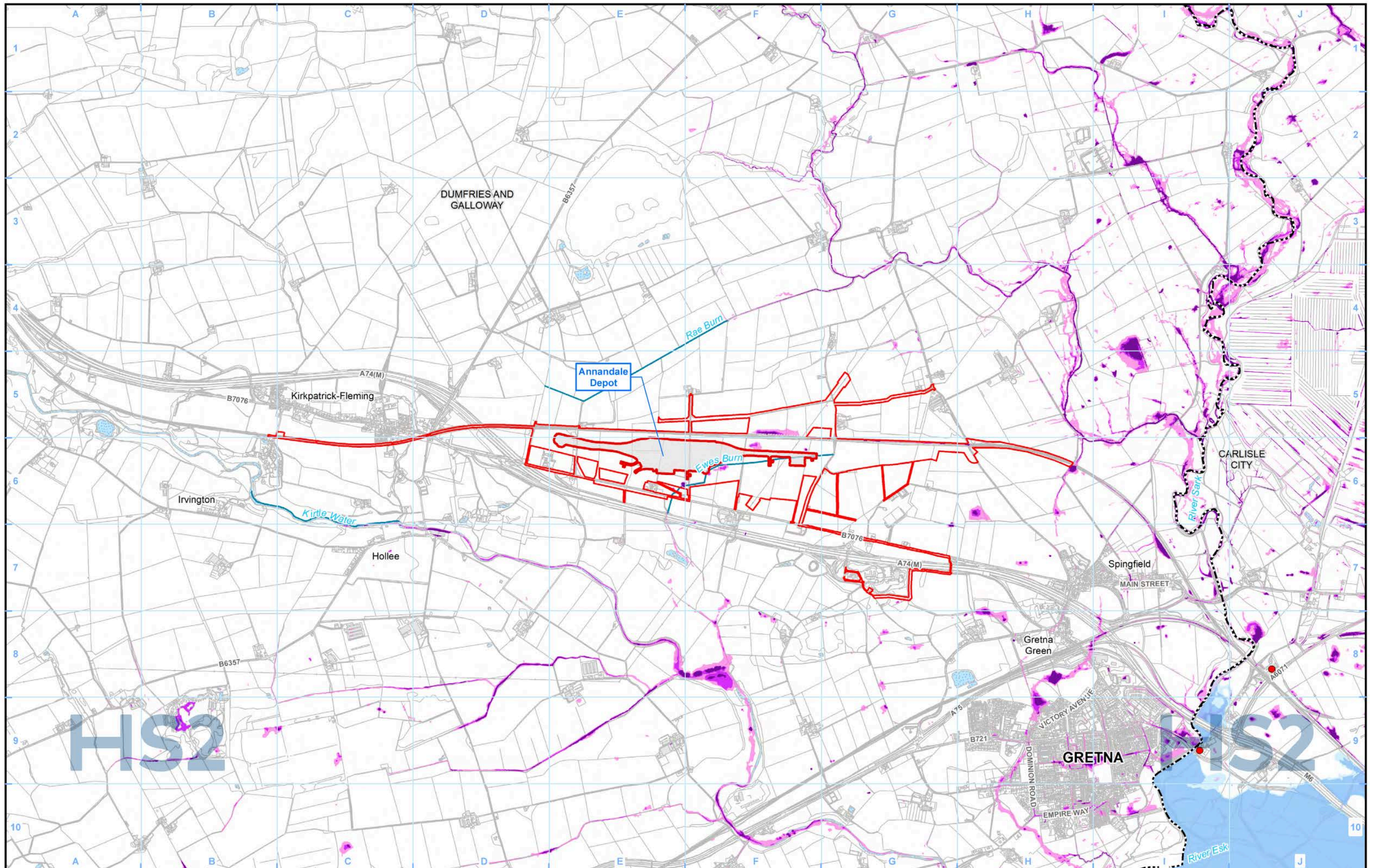
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002250-P01 **Date: 30/03/23**

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Legend

- Route in tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Land potentially required during construction
- Community area boundary
- County boundary
- District/Borough boundary

- Licensed surface water abstraction (excluding public water supplies)
- Unlicensed private surface water abstraction
- Consented discharge to surface water
- Airport
- Watercourse
- Culverted watercourse
- Canal
- Canal tunnel
- Lakes & Reservoirs
- Historic flooding area

Fluvial flood risk:

- Flood Zone 2
- Flood Zone 3

Risk of Flooding from Surface Water:

- High - chance of flooding greater than 1 in 30 (3.33%)
- Medium - chance of flooding between 1 in 100 (1%) and 1 in 30 (3.33%)
- Low - chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)

Map Number: **WR-01-803**

Map Name: **Surface Water Baseline
SES2 and AP2 ES**

Community Area ADEP:
Annandale Depot

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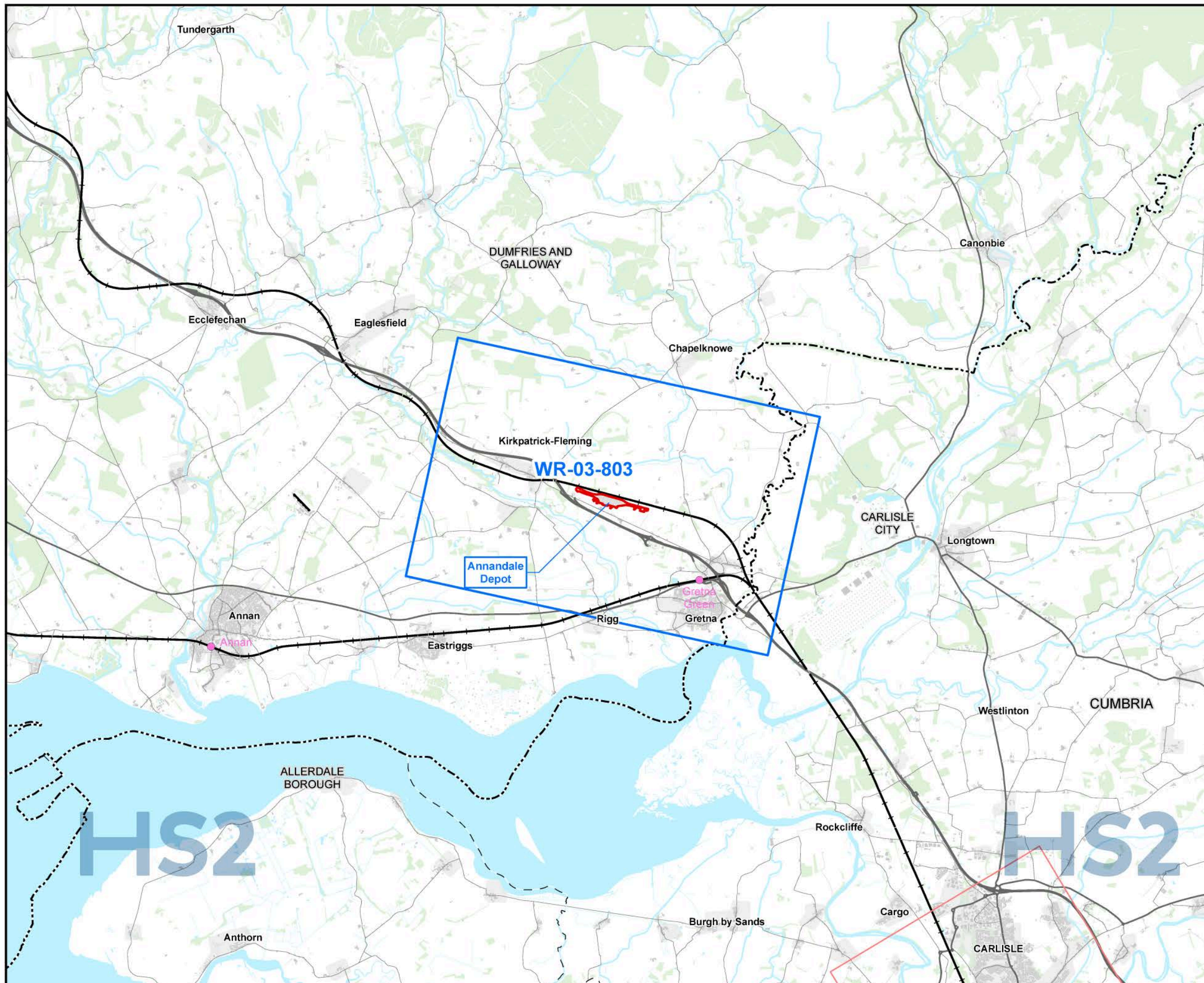
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002248-P01

Scale at A3: 1:25,000

Metres

Date: 30/03/23



Map Series Information:

This map series shows water bodies, their Water Framework Directive current status and associated ecological features.

Main Map Legend

Route in tunnel	Map sheets included in this community area
Route on surface	Map sheets included in this community with no amendment
Depot, station, headhouse or portal building	Map sheets not included in this community area
Community area boundary	Existing railway station
County boundary	District/Borough boundary

Map Number	WR-03-INDEX-ADEP
Map Name	Index Map of: Water Framework Directive SES2 and AP2 ES
	Off-route ADEP: Annandale Depot

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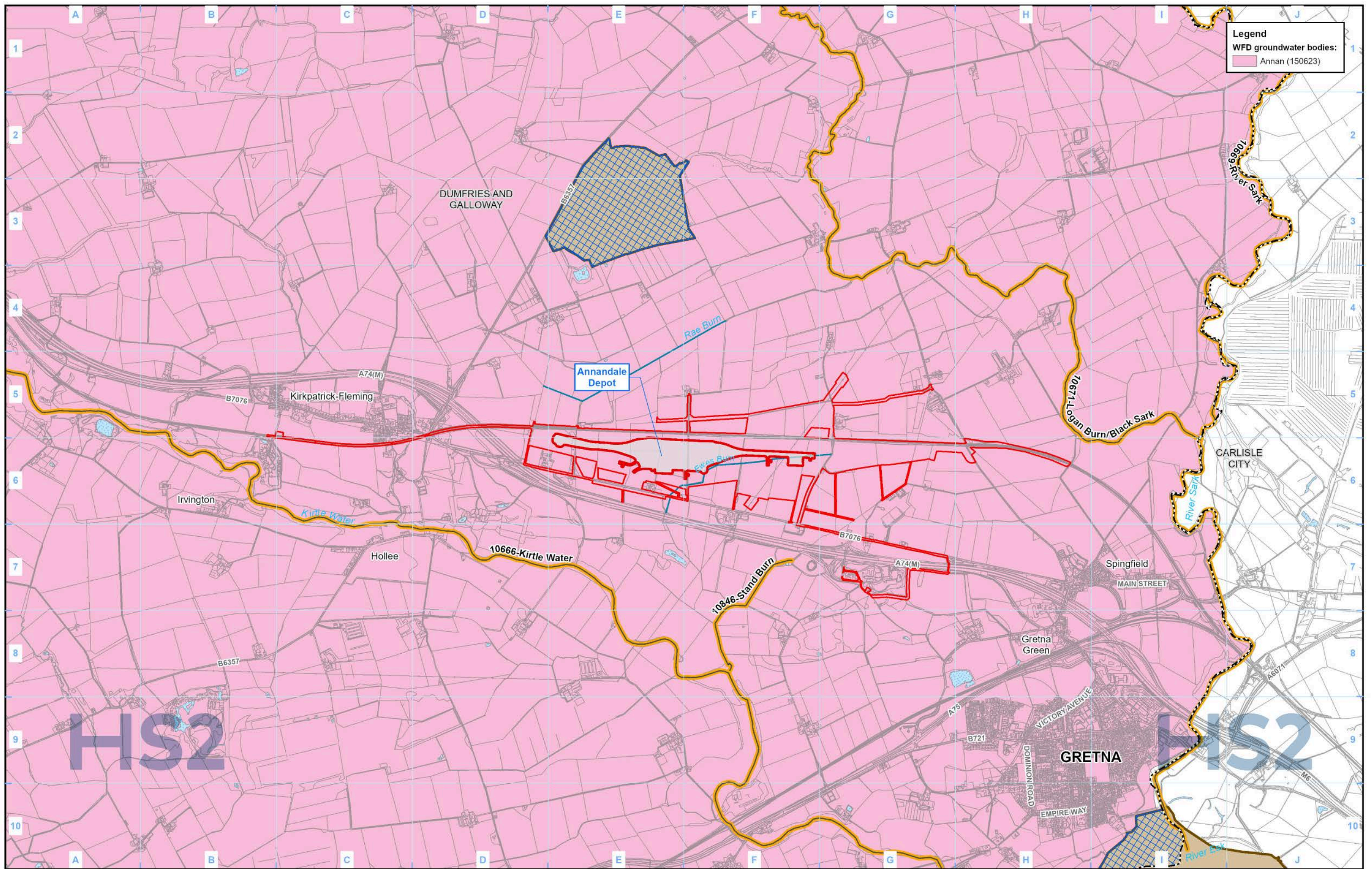
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Doc Number: 2PT27-MWJ-EV-MAP-M000-002284-P01 Date: 30/03/23

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Note: Not all data layers in the legend are represented on every map.



Legend
 WFD groundwater bodies:
 Annan (150623)

<p>Legend</p> <ul style="list-style-type: none"> Route in tunnel Route on surface Depot, station, headhouse or portal building Land potentially required during construction Community area boundary County boundary District/Borough boundary 	<p>WFD Surface Water Bodies</p> <p>Overall Status Classification (2015 RBMP Cycle 2):</p> <ul style="list-style-type: none"> Good Moderate Poor Bad 	<p>WFD Lakes</p> <p>Overall Status:</p> <ul style="list-style-type: none"> Good Moderate Poor Bad 	<ul style="list-style-type: none"> Special Areas of Conservation (SAC) Sites of Special Scientific Interest (SSSI) 	<p>Map Number: WR-03-803</p> <p>Map Name: Water Framework Directive SES2 and AP2 ES</p> <p>Community Area ADEP: Annandale Depot</p>	<p>HS2</p> <p>HS2 Ltd accept no responsibility for any circumstances, which arise from the reproduction of this map after alteration, amendment or abbreviation or if it is issued in part or issued incomplete in any way.</p> <p>Registered in England: Registration number 06791686. Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.</p> <p>© Crown copyright and database rights 2022 OS 100049190</p> <p>Doc Number: 2PT27-MWJ-EV-MAP-M000-002274-P01</p> <p>Date: 28/03/23</p> <p>Scale at A3: 1:25,000</p> <p>0 250 500 750 1000 Metres</p>
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