

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 5: Map Book

Air quality (AQ-01)



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

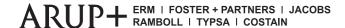
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A report prepared for High Speed Two (HS2) Limited:





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Contents

Mapping explanatory notes

Data dictionary and definitions

Map series name	AQ-01 - Air Quality Monitoring Locations and Receptors
Map series description	These maps show the location of local air quality monitoring locations, management areas and receptors used in the construction/operational traffic assessments in relation to the proposed scheme.
Community Area name	
MA01 Hough to Walley's Green	✓
MA02 Wimboldsley to Lostock Gralam	✓
MA03 Pickmere to Agden and Hulseheath	✓
MA04 Broomedge to Glazebrook	✓
MA05 Risley to Bamfurlong	✓
MA06 Hulseheath to Manchester Airport	✓
MA07 Davenport Green to Ardwick	✓
MA08 Manchester Piccadilly Station	\checkmark
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.

Non-technical summary

Provides a summary, in non-technical language, of the Supplementary Environmental Statement 2 (SES2) (Part 1) and the Additional Provision Environmental Statement 2 (AP2 ES) (Part 2) and of any likely residual significant environmental effects which are new, removed or different compared to those reported in the main Environmental Statement (ES), and the SES1 or AP1 ES as relevant.

Glossary, abbreviations

Contains any terms and abbreviations used throughout the SES2 and AP2 ES, and provides all references cited in each of the volumes.

Volume 1: Introduction and methodology

Provides an introduction to the SES2 and AP2 ES and explains the Environmental Impact Assessment (EIA) process that has been applied. This volume introduces the supplementary environmental information and changes to the design and construction assumptions included within the SES2 and amendments within the AP2 ES.

Volume 3: Route-wide effects

Describes any new, removed or different likely significant environmental effects arising at a route-wide level from the supplementary environmental information, changes to the design and construction assumptions included within the SES2 (Part 1) and the amendments within the AP2 ES (Part 2) compared to those reported in the main ES, and the SES1 or AP1 ES as relevant.

Volume 4: Off-route effects

Describes any new, removed or different likely significant environmental effects arising at off-route locations from the supplementary environmental information, changes to the design and construction assumptions included in the SES2 (Part 1) and amendments within the AP2 ES (Part 2) compared to those reported in the main ES.

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Volume 2: Community Area (CA) reports

Consists of six reports and their associated map books. These reports set out the supplementary environmental information, changes to the design and construction assumptions included within the SES2 (Part 1), amendments within the AP2 ES (Part 2) and any new, removed or different likely significant environmental effects arising from these changes and amendments in each community area compared to those reported in the main ES, and the SES1 or AP1 ES as relevant.

MA01 Report

Hough to
Walley's Green

MA01 Map Book

MA02 Report Wimboldsley to Lostock Gralam MA03 Report
Pickmere to Agden and Hulseheath

MA06 Report
Hulseheath to
Manchester Airport

MA07 Report

Davenport Green
to Ardwick

MA07 Map Book

MA08 Report

Manchester
Piccadilly Station

MA08 Map Book

Volume 5: Appendices and Map Books

This volume contains supporting environmental information and maps to be read in conjunction with the other volumes of the SES2 and AP2 ES.

Agriculture, forestry and soils

AG
Appendices

r quality

AQ
pendices

Ap

Map Book
Community

Map Book

Ecology and biodiversity

EC

Appendices

Electromagnetic interferance

EM
Appendices

Historic environment

HE
Appendices

Planning data

Land quality

LQ
Appendices
Ap

Wider effects report

ndscape d visual

LV

MA
Appendices

Socioeconomics

SE
Appendices Sound, noise and vibration Traffic and transport

Water resources and flood risk

· · · Published outside the ES

Background Information and Data (BID) and associated BID Map Books

Baseline data and other background information is set out in the relevant BID documents and associated BID map books. This is a compendium of technical reports that sit outside of the SES2 and AP2 ES, but are aligned to and referred to by the SES2 and AP2 ES. They are published at the same time as the SES2 and AP2 ES.

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 1:25,000 scale chainage is shown 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)		



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Data dictionary and definitions

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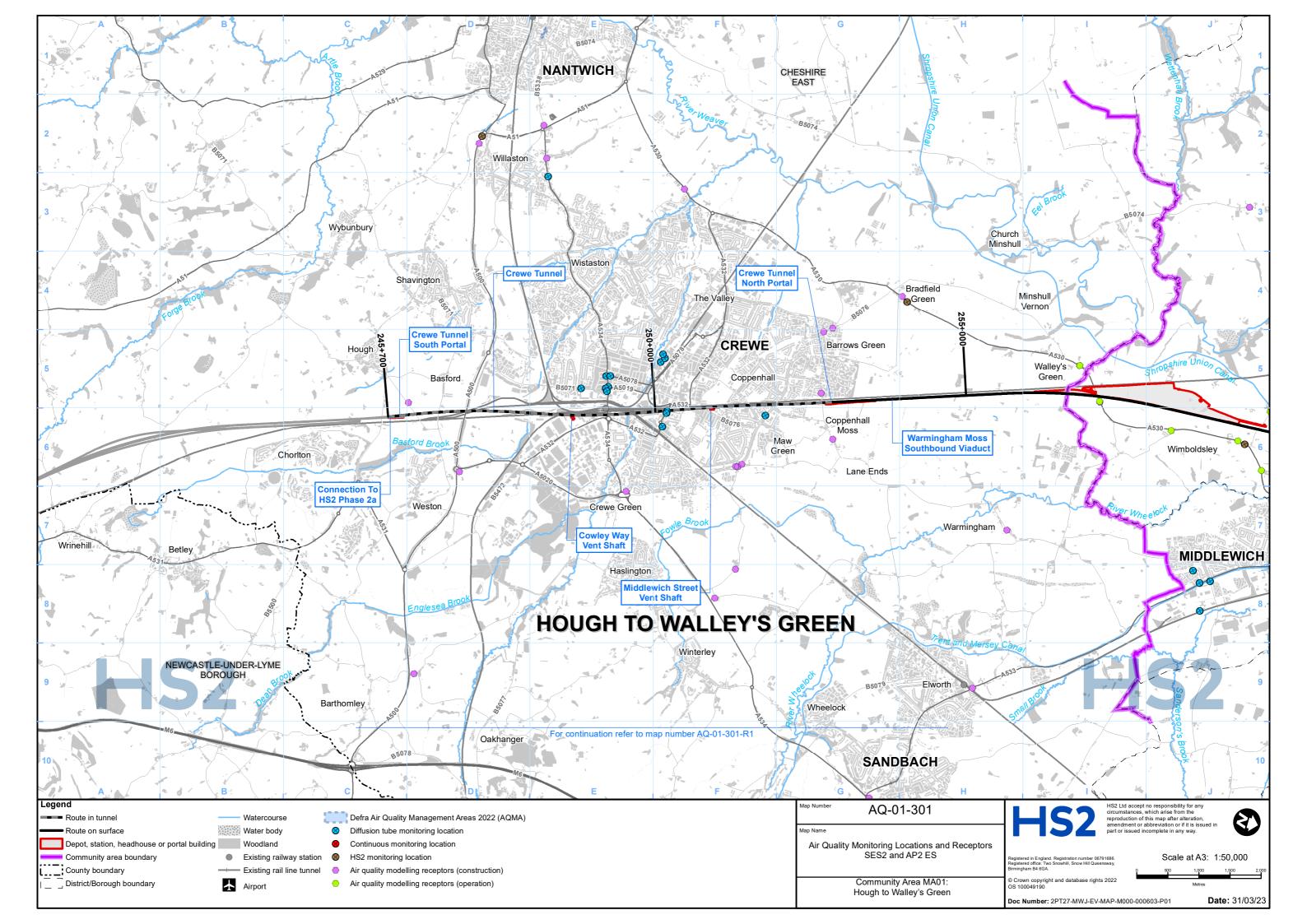
Legend features	Definition	Source	Copyright
Air quality modelling receptors (construction)	Air quality modelled receptors.	High Speed Two (HS2) Ltd	
Air quality modelling receptors (operation)	Air quality modelled receptors.	High Speed Two (HS2) Ltd	
Airport	Airport location derived from Ordnance Survey Vector map data.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2021.
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.
Continuous monitoring location	Local authority or Defra air quality monitoring location using a continuous monitor.	High Speed Two (HS2) Ltd	
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.
DEFRA Air Quality Management Areas 2022 (AQMA)	Since December 1997 each Local Authority in the UK has been carrying out a review and assessment of air quality in their area. This involves measuring air pollution and trying to predict how it will change in the next few years. The aim of the review is to make sure that the national air quality objectives will be achieved throughout the UK by the relevant deadlines. These objectives have been put in place to protect people's health and the environment. If a Local Authority finds any places where the objectives are not likely to be achieved, it must declare the location as an Air Quality Management Area. This area may extend for one or two streets, or it could be a much wider area.	Department Environment Food and Rural Affairs (Defra)	© Crown 2022 copyright Defra via uk-air.defra.gov.uk.
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	
Diffusion tube monitoring location	Local authority air quality monitoring location using diffusion tubes.	High Speed Two (HS2) Ltd	Licenced under the Open Government Licence (OGL).

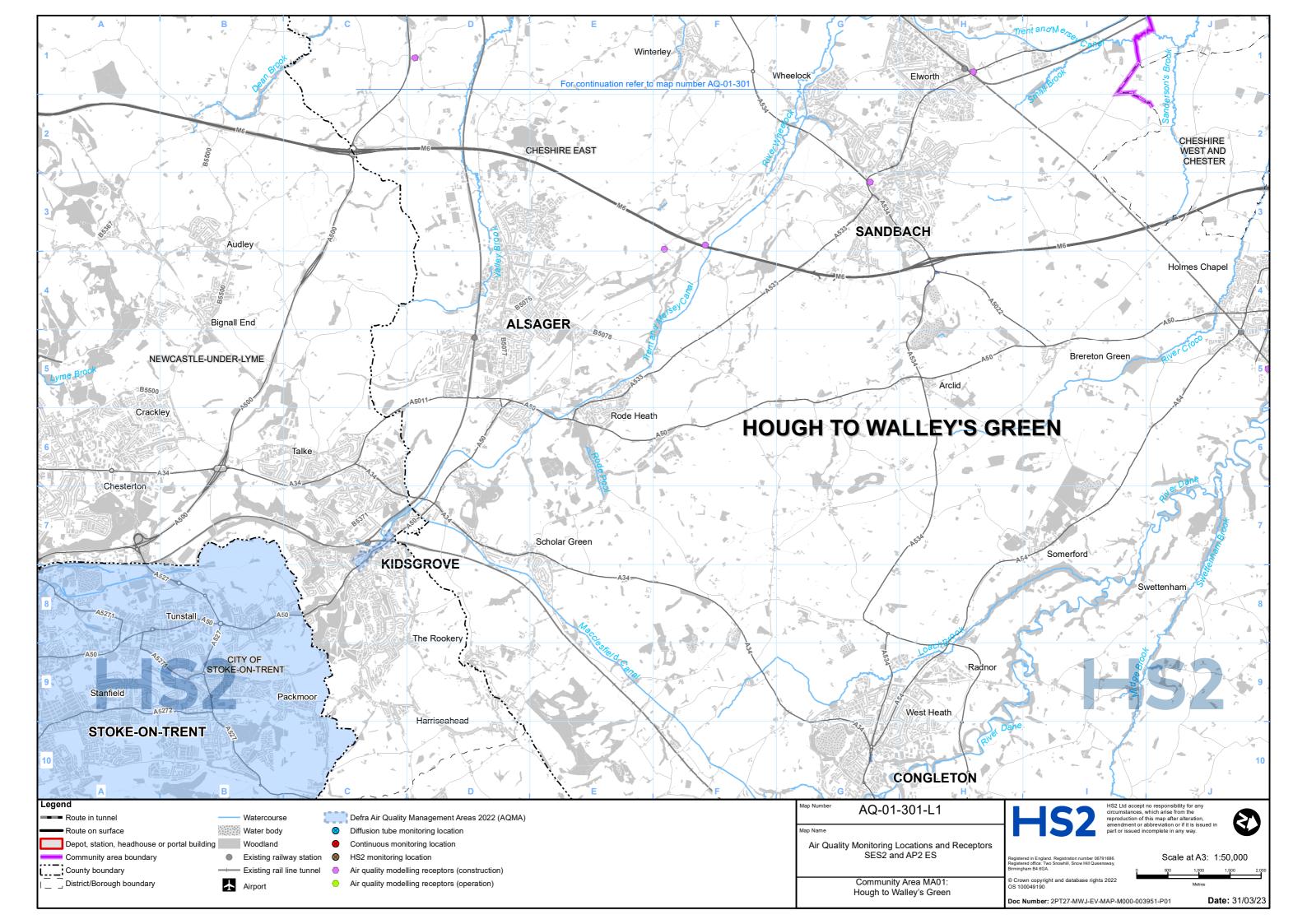
Legend features	Definition	Source	Copyright
District/Borough boundary	Ordnance Survey local authority boundary mapping.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2021.
Existing railway line	Existing railway stations derived from Ordnance Survey Vector map data.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2021.
Existing railway station	Existing railway stations derived from Ordnance Survey Vector map data.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2021.
HS2 monitoring location	Air quality monitoring location for the Proposed Scheme using diffusion tubes.	High Speed Two (HS2) Ltd	
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	
Water body	Any mass of water having definite hydrological, physical, chemical and biological characteristics.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2022.
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.
Woodland	Woodland areas derived from Ordnance Survey MasterMap data.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2022.



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MA01: Hough to Walley's Green AQ-01 – Air Quality Monitoring Locations and Receptors

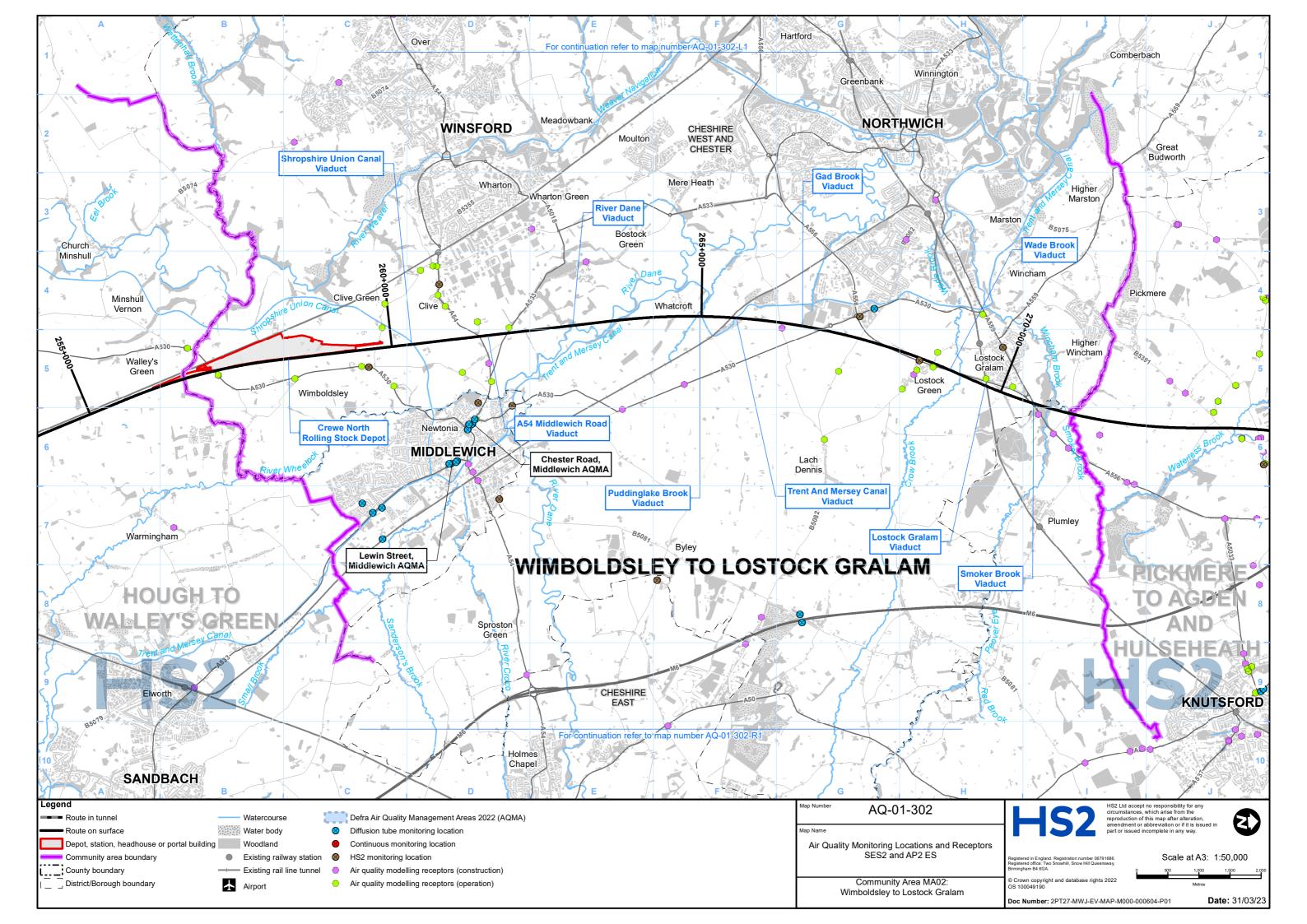


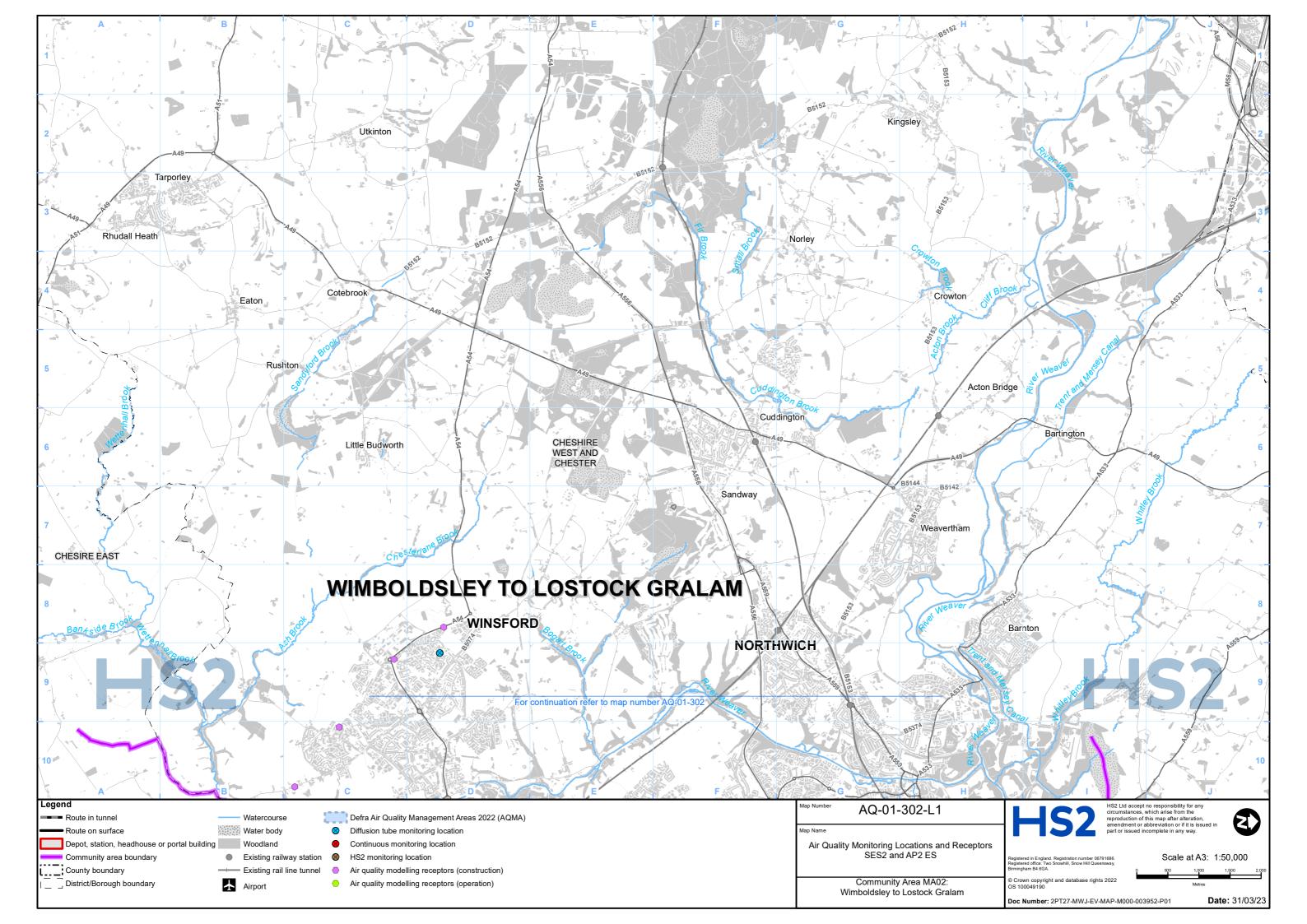


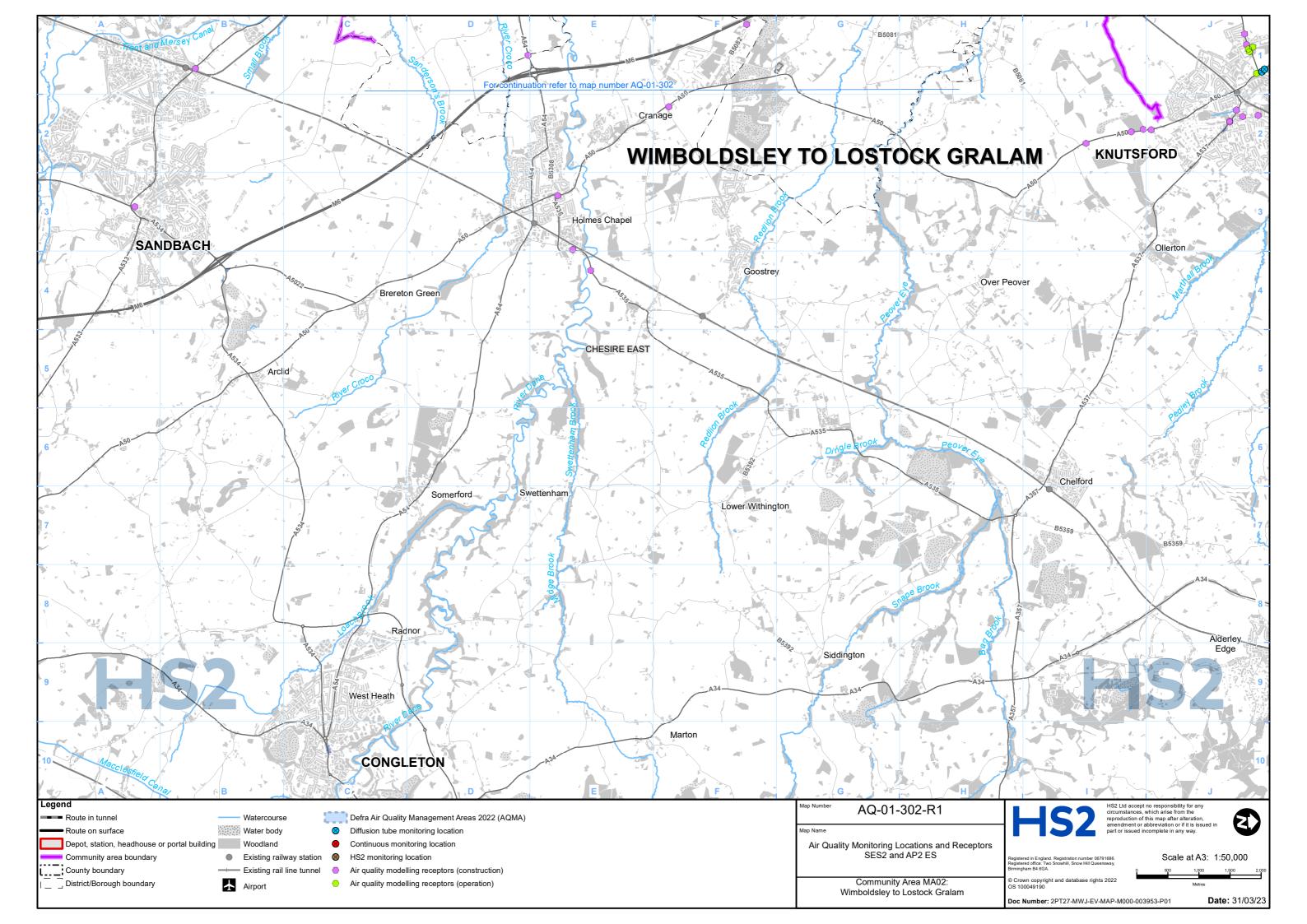


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MA02: Wimboldsley to Lostock Gralam AQ-01 – Air Quality Monitoring Locations and Receptors



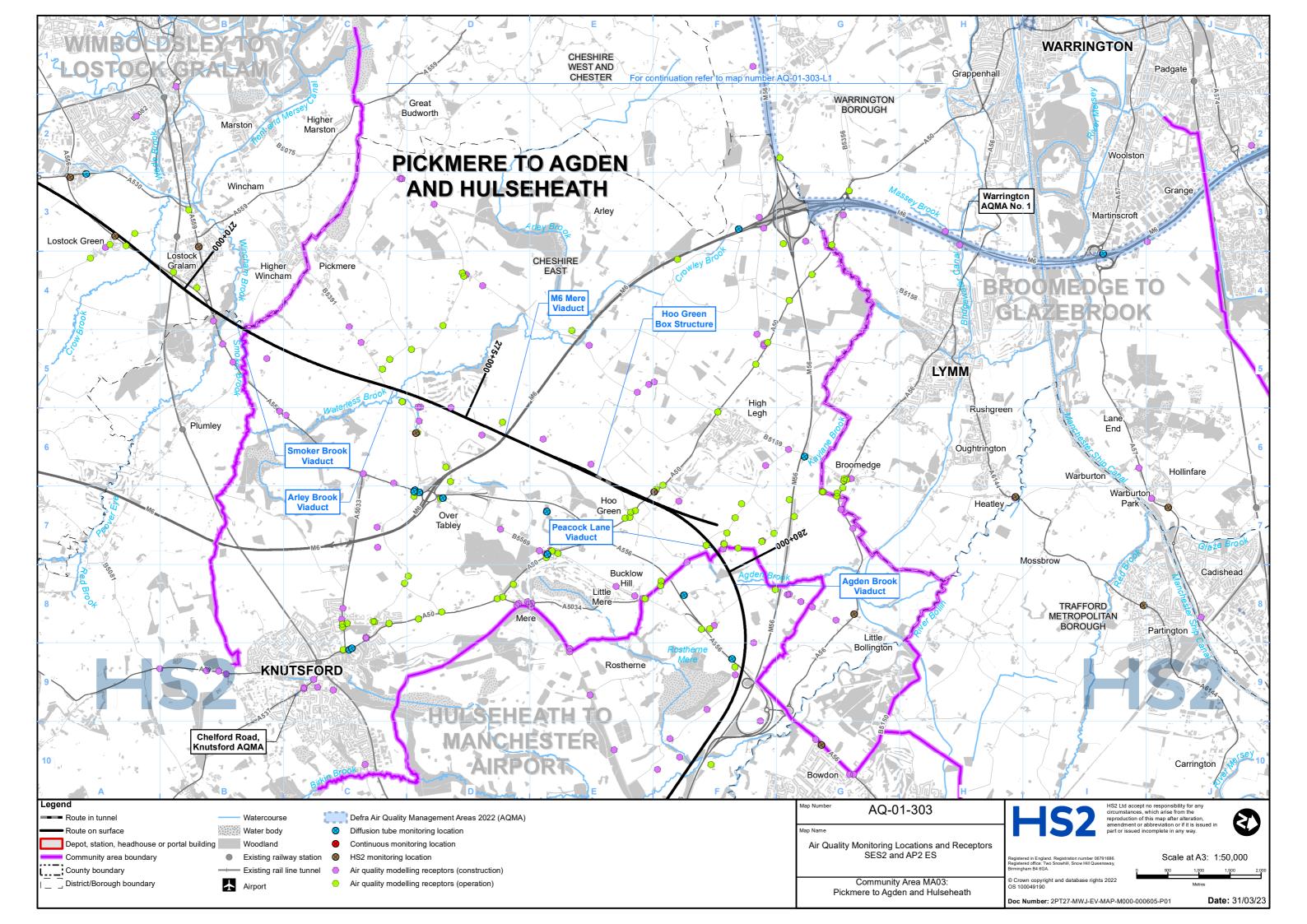


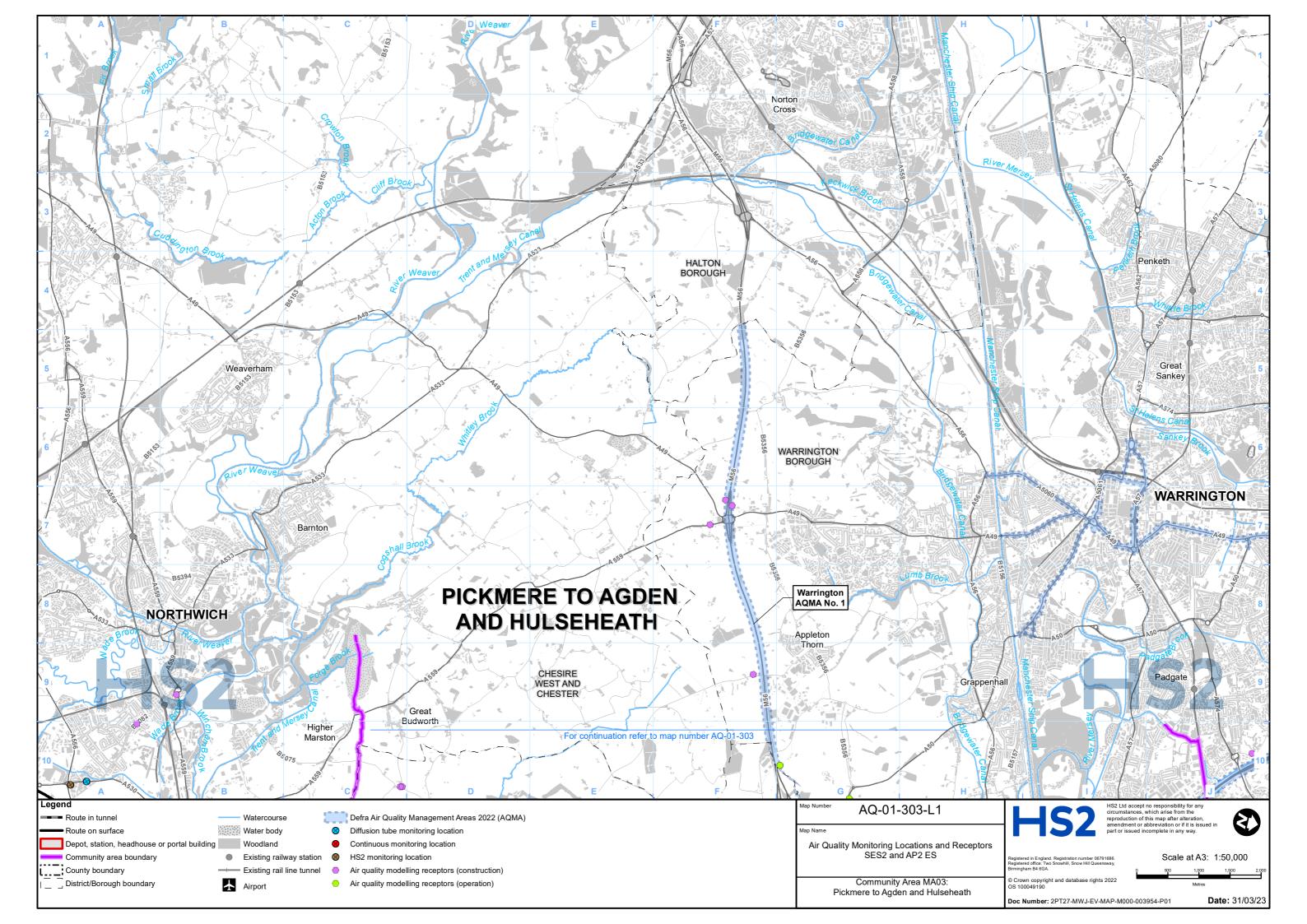




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MA03: Pickmere to Agden and Hulseheath AQ-01 – Air Quality Monitoring Locations and Receptors

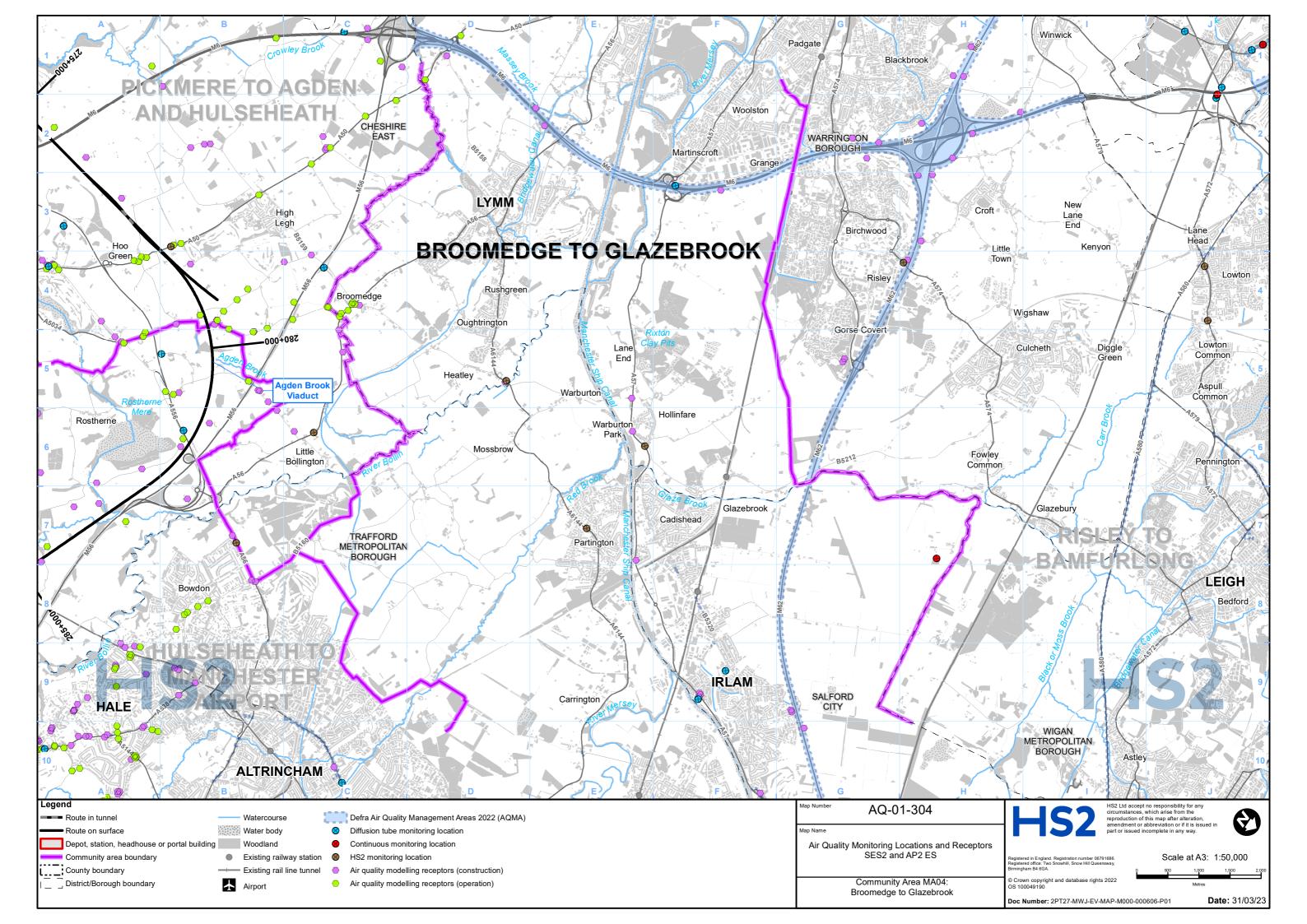






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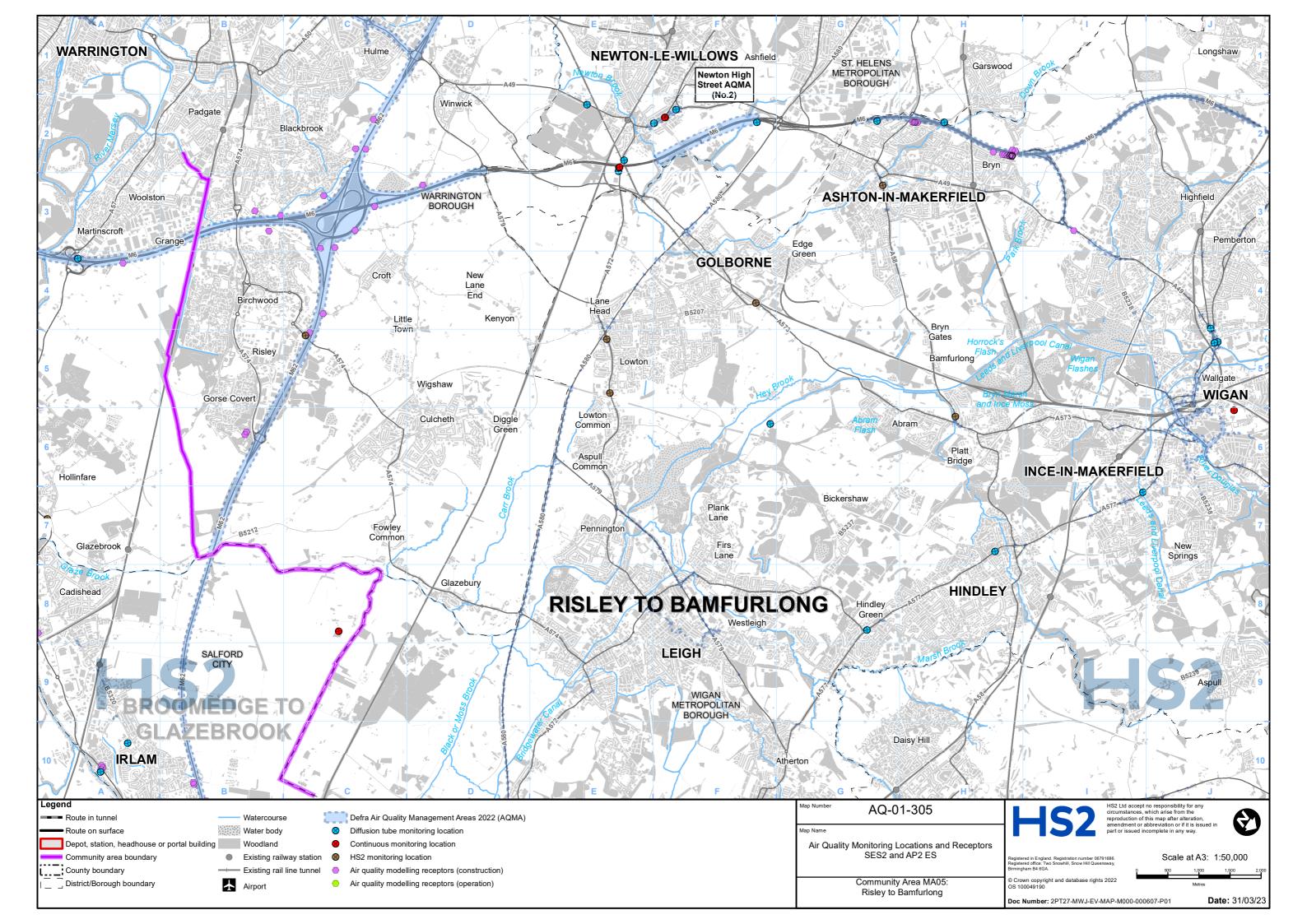
MA04: Broomedge to Glazebrook AQ-01 - Air Quality Monitoring Locations and Receptors





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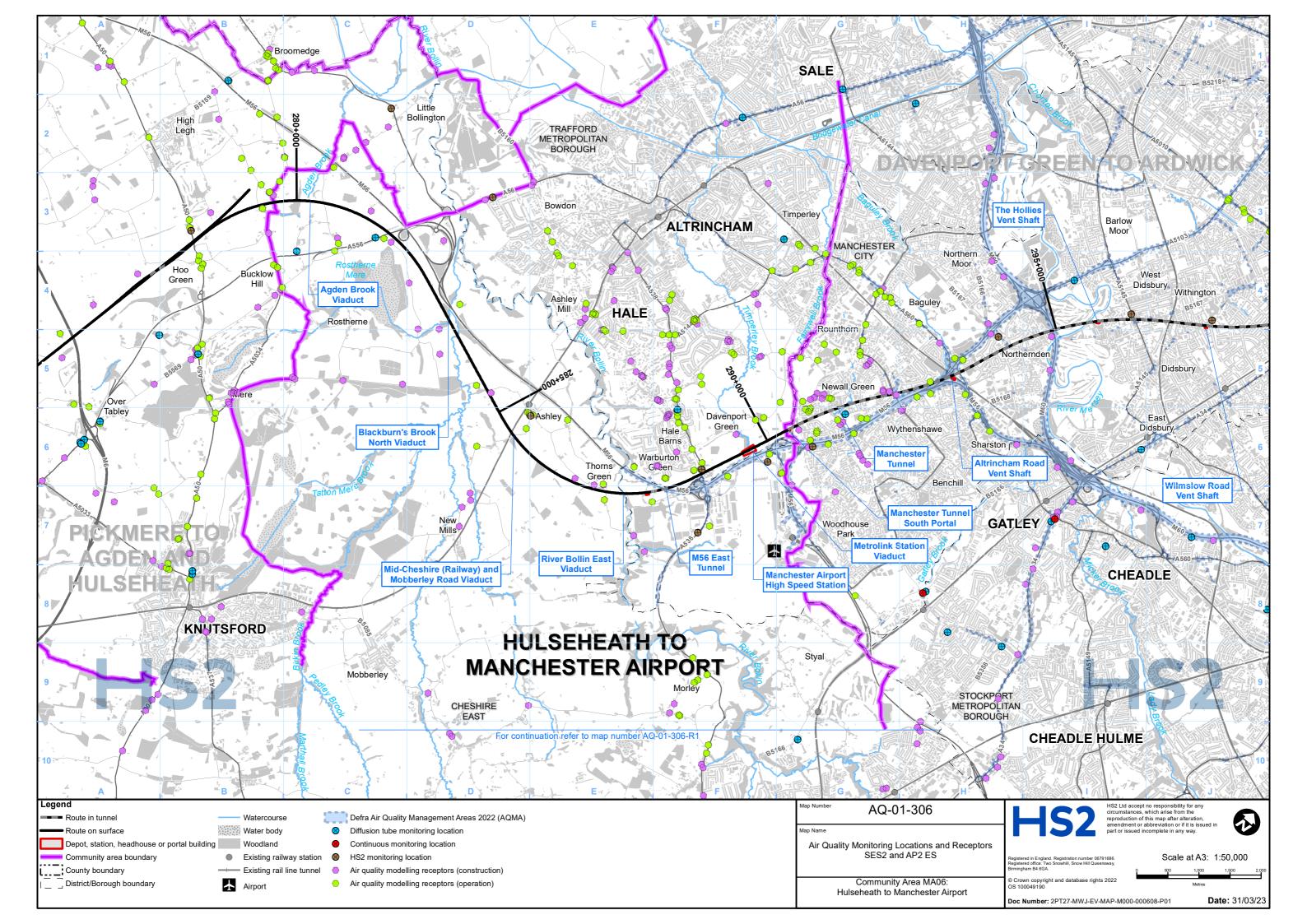
MA05: Risley to Bamfurlong AQ-01 - Air Quality Monitoring Locations and Receptors

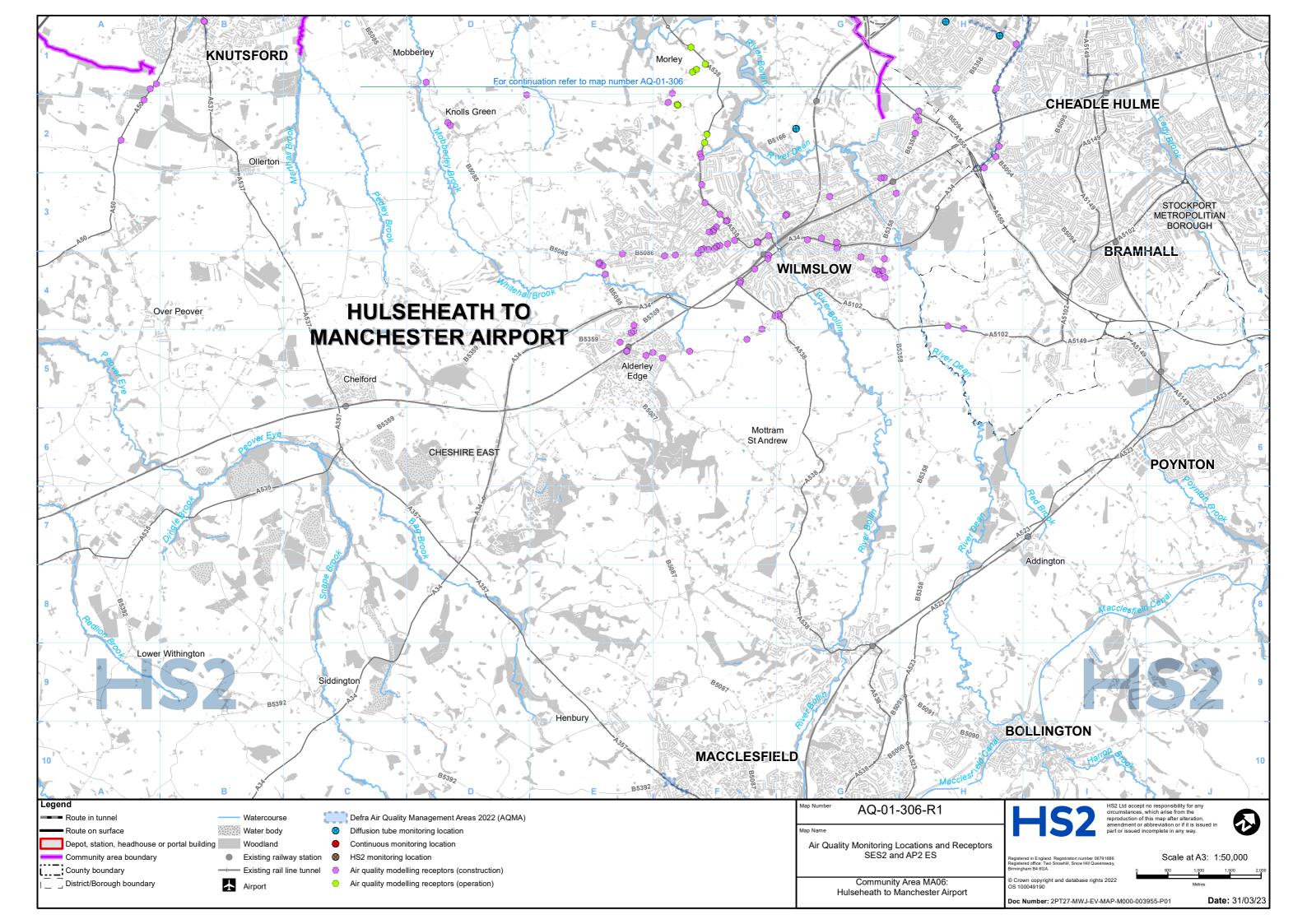




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MA06: Hulseheath to Manchester Airport AQ-01 – Air Quality Monitoring Locations and Receptors

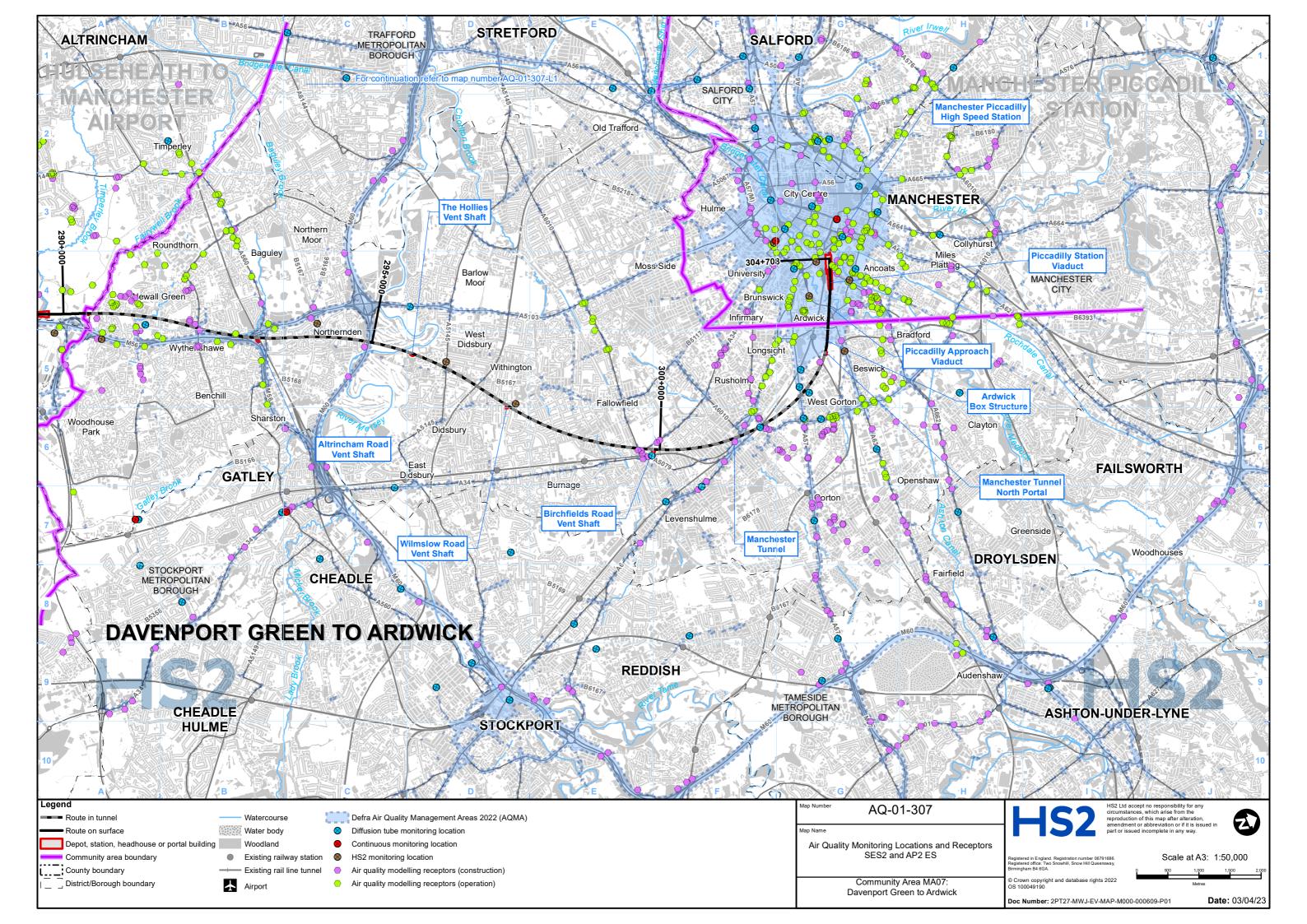


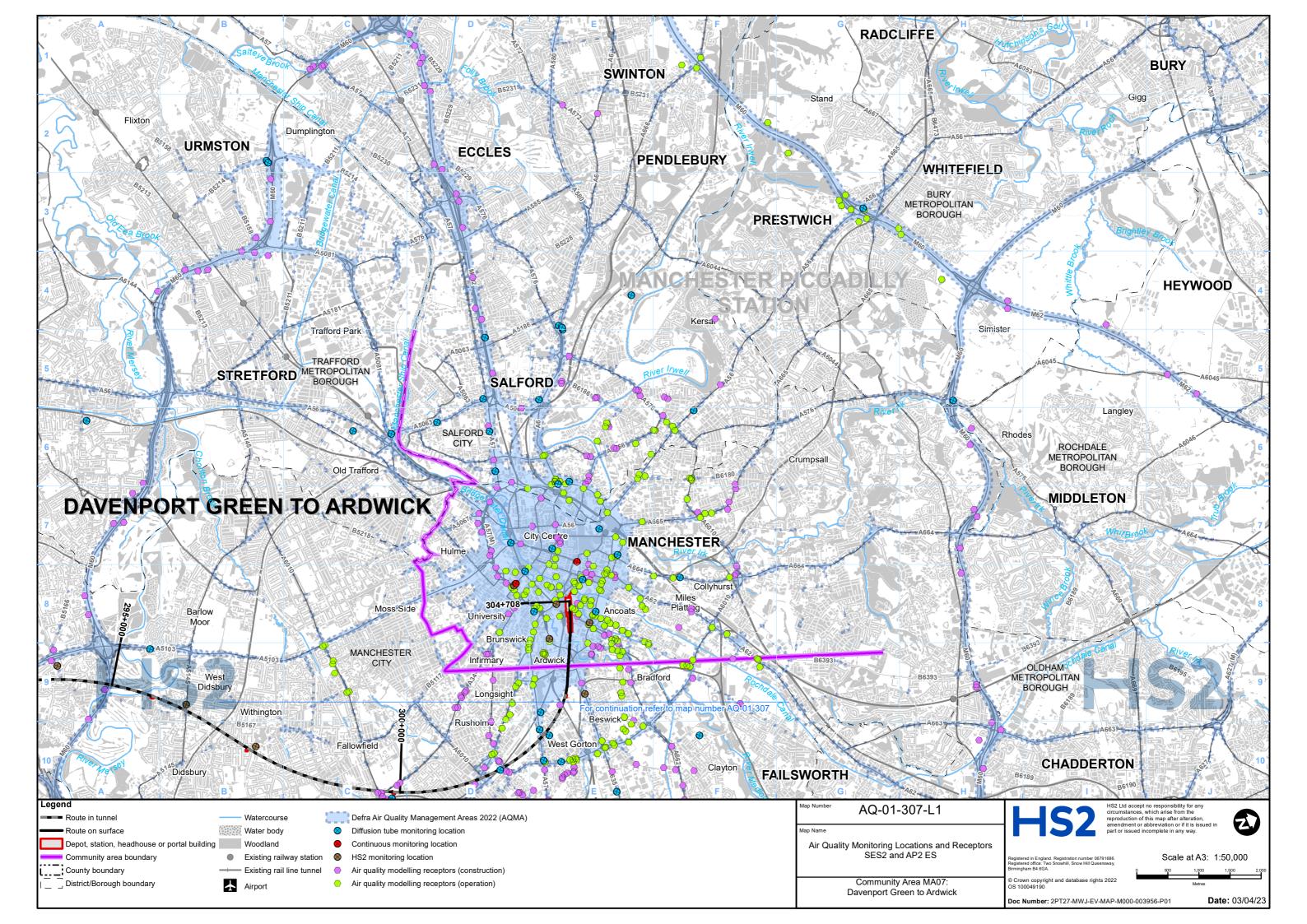




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MA07: Davenport Green to Ardwick AQ-01 – Air Quality Monitoring Locations and Receptors







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MA08: Manchester Piccadilly Station AQ-01 – Air Quality Monitoring Locations and Receptors

