

High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 1 and Additional Provision 1 Environmental Statement

Volume 5: Map Book

Air quality (AQ-01)

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Volume 5: Map Book

Air quality (AQ-01)



Department
for Transport

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

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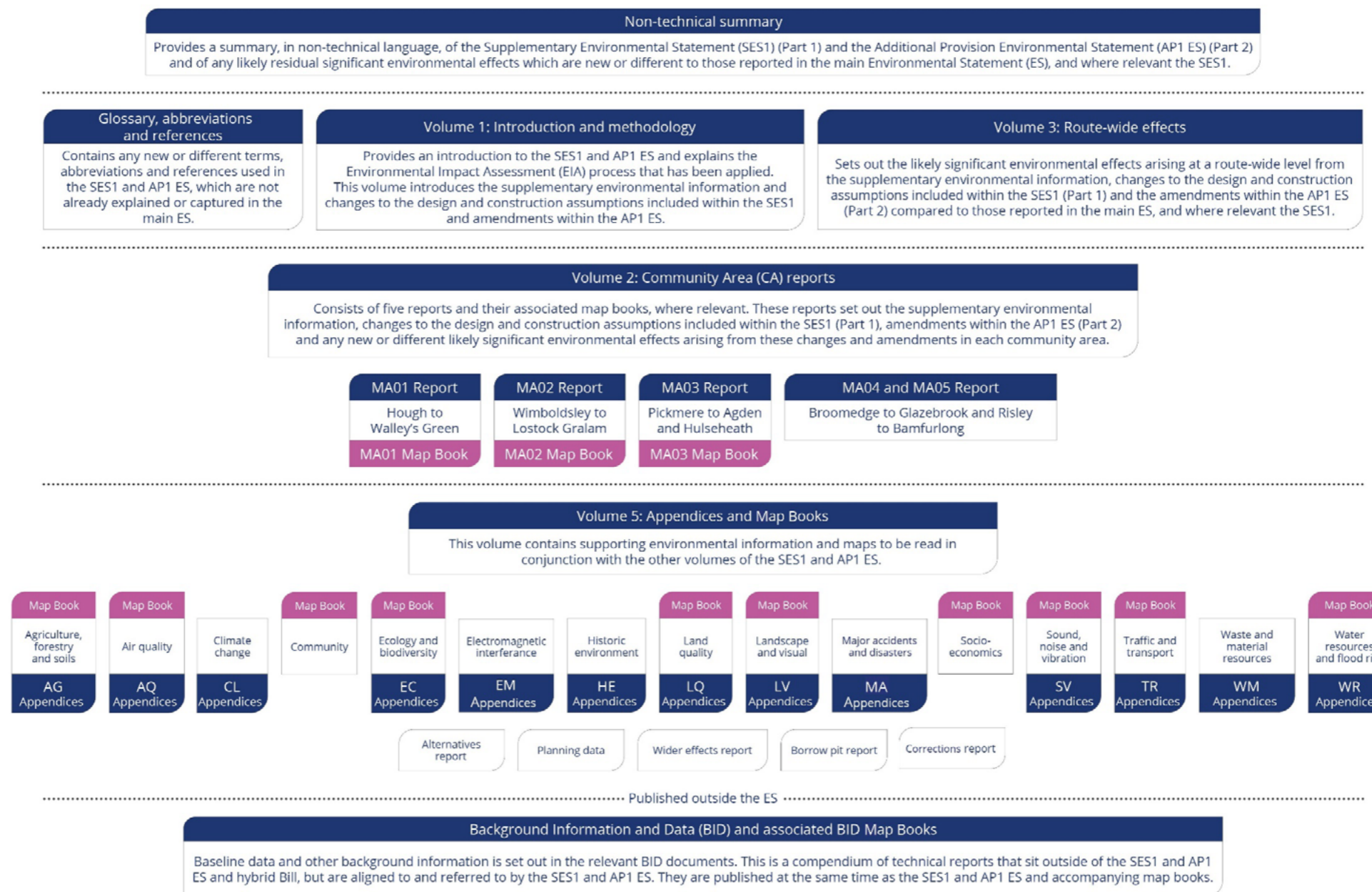
Data dictionary and definitions

| 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 | ✓ |

Mapping explanatory notes

Structure of the Supplementary Environmental Statement 1 and the Additional Provision 1 Environmental Statement

This map book is part of the suite of documents that make up the Supplementary Environmental Statement 1 (SES1) and the Additional Provision 1 Environmental Statement (AP1 ES) for the High Speed Rail (Crewe – Manchester) scheme. The SES1 and the AP1 ES are separate documents; however, they are bound together and presented in a number of volumes shown in Figure 1.



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 SES1 and AP1 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 SES1 and AP1 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 SES1 and the AP1 ES map on the right. For the CT-05 and CT-06 map series, the SES1 and the AP1 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 SES1 and the AP1 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 SES1 and the AP1 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 SES1 and the AP1 ES reference number. For more detailed information about the SES1 and the AP1 ES annotation, refer to the map series legend. Only maps which have been amended as a result of the SES1 and the AP1 ES are included within the map book.

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 SES1 and AP1 ES.

Map books

In total, there are 14 map books included in the SES1 and AP1 ES Volume 2 and Volume 5. A list of the map book titles and map series is provided below for reference.

| Map book title (map series) | Name |
|---|---|
| Volume 2: Map book – MA01: Hough to Walley's Green (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 – MA02: Wimboldsley to Lostock Gralam (CT-05, CT-06, CT-10, LV-01, LV-03, LV-04, SV-05) | Volume 5: Map book – Landscape and visual (LV-00, LV-02, LV-07, LV-08, LV-17) |
| Volume 2: Map book – MA03: Pickmere to Agden and Hulseheath (CT-05, CT-06, CT-10, LV-01, LV-03, LV-04, SV-05) | Volume 5: Map book – Planning Data/Committed Development (CT-13) |
| Volume 5: Map book – Agriculture (AG-01, AG-04) | Volume 5: Map book – Socio-economics (SE-01) |
| Volume 5: Map book – Air quality (AQ-01) | Volume 5: Map book – Sound, noise and vibration (SV-02, SV-03, SV-08, SV-09) |
| Volume 5: Map book – Community (CM-01) | Volume 5: Map book – Traffic and transport (TR-03, TR-04, TR-08) |
| Volume 5: Map book – Ecology and biodiversity (EC-01) | Volume 5: Map book – Water resources and flood risk (WR-02) |

High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 1 and Additional Provision 1 Environmental Statement

Data dictionary and definitions

Data dictionary and definitions

| 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 2021 (AQMA) | <p>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.</p> <p>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"</p> | Department Environment Food and Rural Affairs (Defra) | © Crown 2021 copyright Defra via uk-air.defra.gov.uk. |

| Legend features | Definition | Source | Copyright |
|--|---|--------------------------|--|
| 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 | Licensed under the Open Government Licence (OGL). |
| 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 2021. |
| 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 2021. |
| 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 2021. |

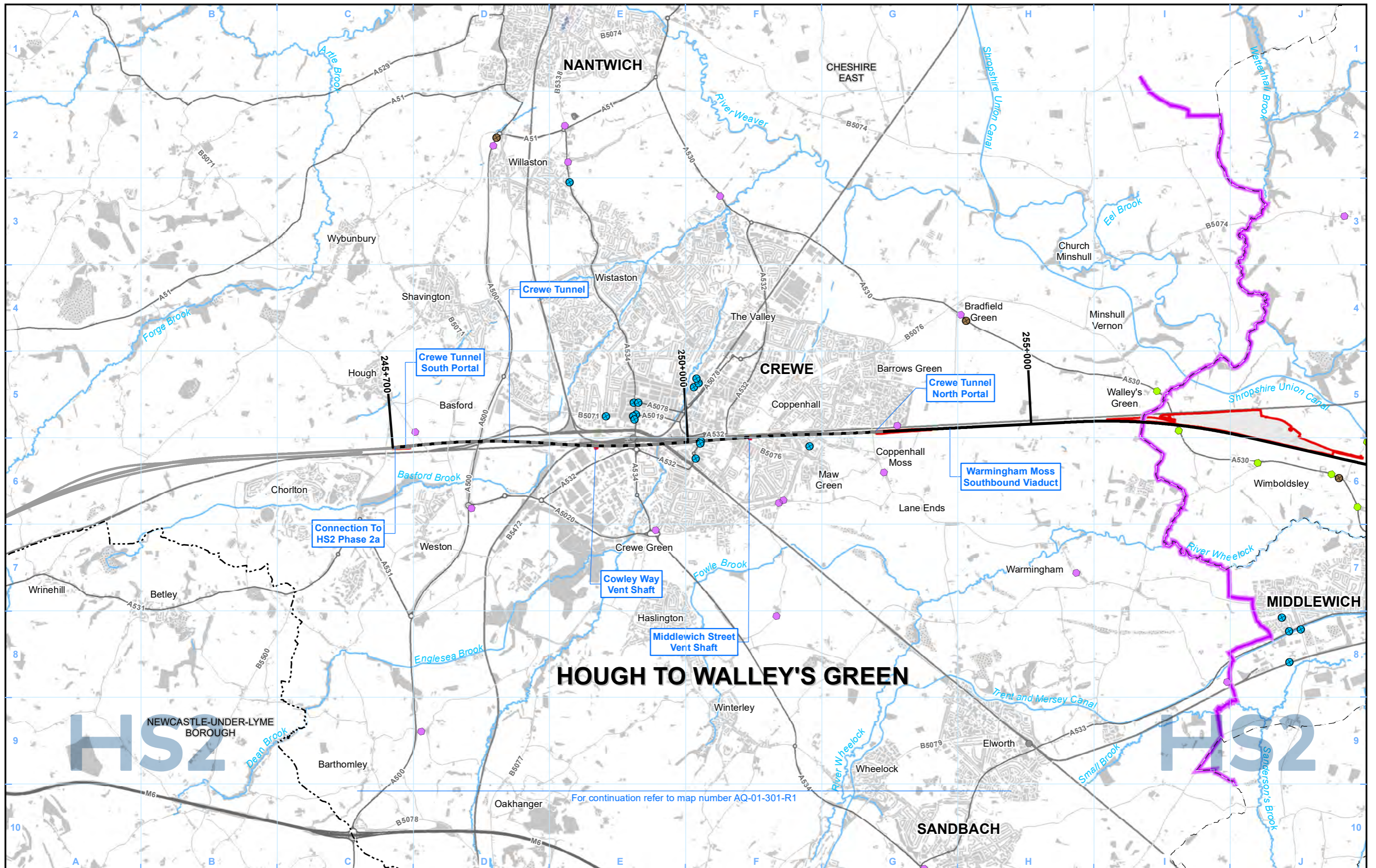
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High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 1 and Additional Provision 1 Environmental Statement

MA01: Hough to Walley's Green

AQ-01 – Air Quality Monitoring Locations and Receptors



HOUGH TO WALLEY'S GREEN

For continuation refer to map number AQ-01-301-R1

| Legend | | |
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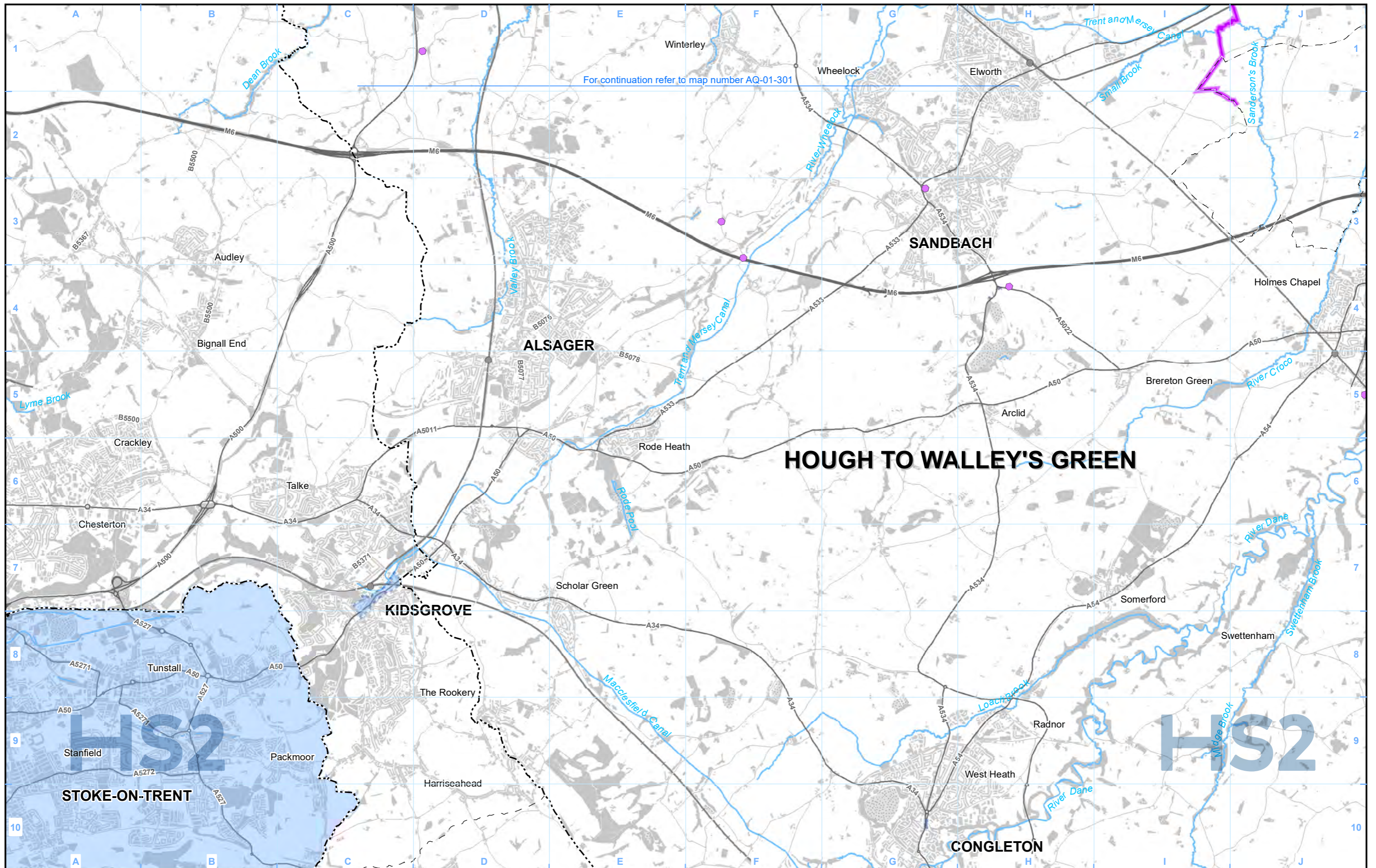
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|----------------|---|
| Map Number | AQ-01-301 |
| Map Name | Air Quality Monitoring Locations and Receptors SES1 and AP1 ES |
| Community Area | MA01: Hough to Walley's Green |

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| Legend | | |
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| Map Number | AQ-01-301-R1 |
| Map Name | Air Quality Monitoring Locations and Receptors SES1 and AP1 ES |
| | Community Area MA01: Hough to Walley's Green |

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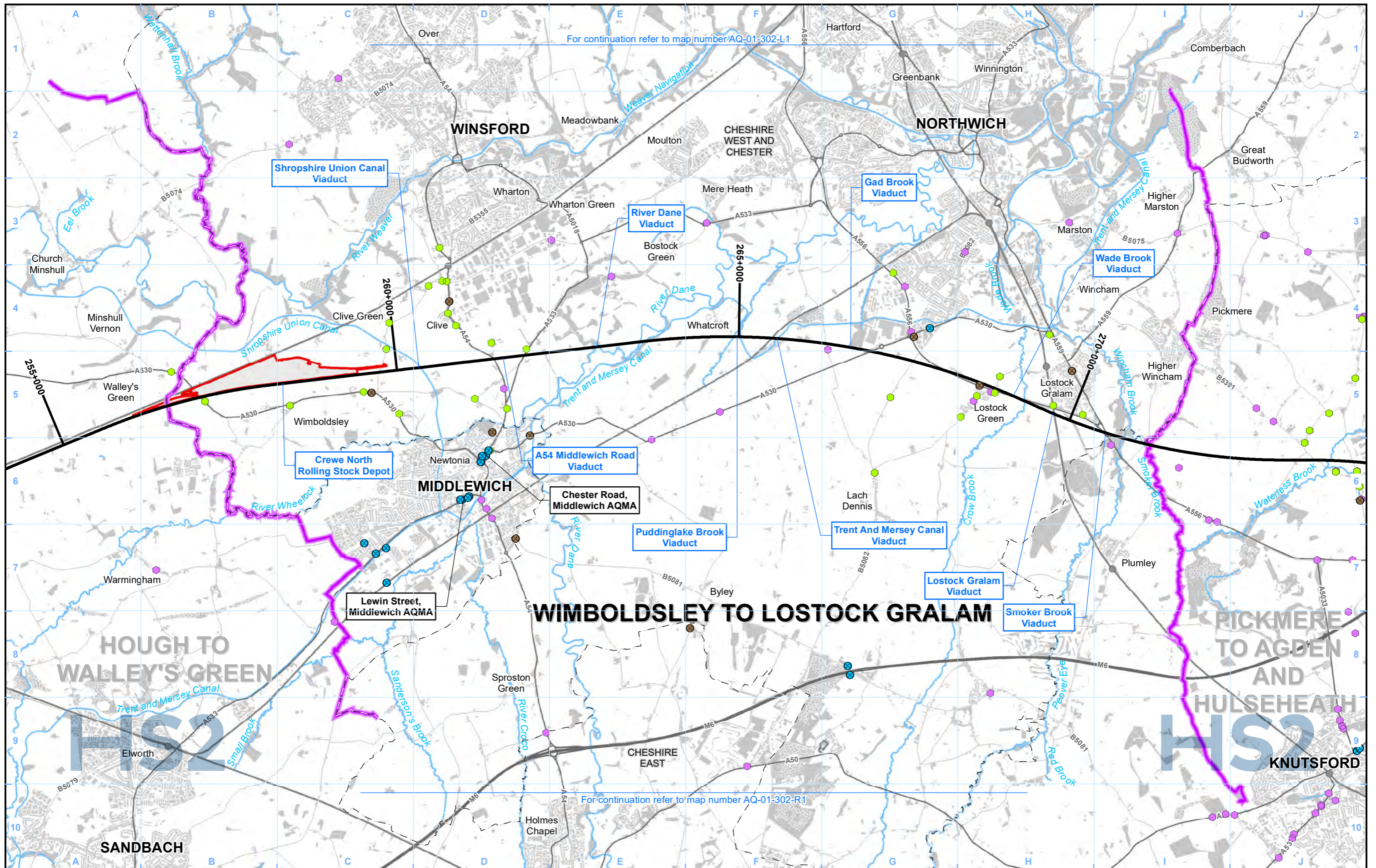
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High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 1 and Additional Provision 1 Environmental Statement

MA02: Wimboldsley to Lostock Gralam

AQ-01 – Air Quality Monitoring Locations and Receptors



Legend

- Route in tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Community area boundary
- County boundary
- District/Borough boundary
- Watercourse
- Water body
- Woodland
- Existing railway station
- Existing rail line tunnel
- Airport
- Defra Air Quality Management Areas 2021 (AQMA)
- Diffusion tube monitoring location
- Continuous monitoring location
- HS2 monitoring location
- Air quality modelling receptors (construction)
- Air quality modelling receptors (operation)

Map Number: **AQ-01-302**

Map Name: **Air Quality Monitoring Locations and Receptors SES1 and AP1 ES**

Community Area MA02: **Wimboldsley to Lostock Gralam**

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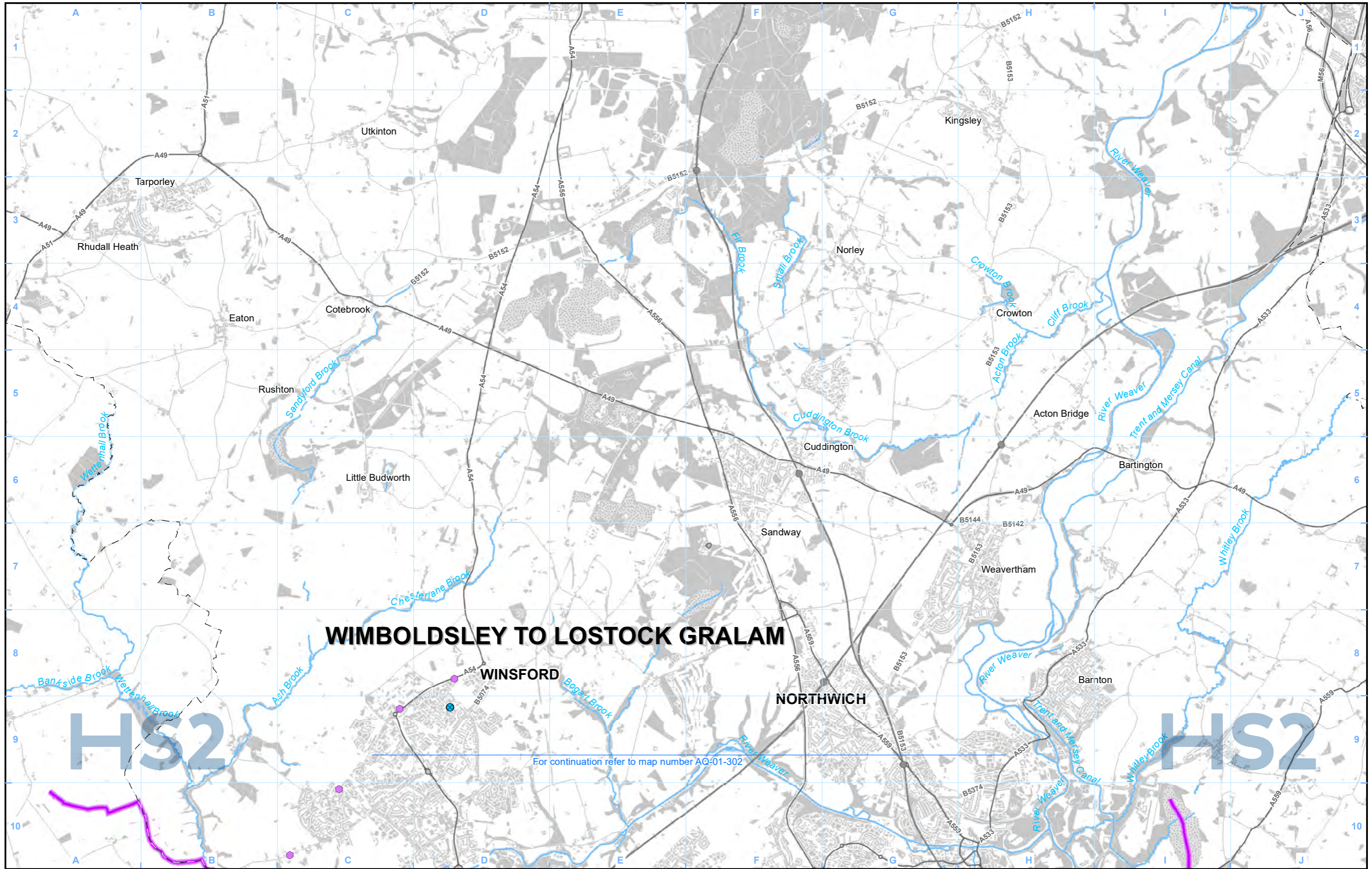
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Metres



WIMBOLDSLEY TO LOSTOCK GRALAM

WINSFORD

NORTHWICH

For continuation refer to map number AQ-01-302

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

- Watercourse
- Water body
- Woodland
- Existing railway station
- Existing rail line tunnel
- Airport

- Defra Air Quality Management Areas 2021 (AQMA)
- Diffusion tube monitoring location
- Continuous monitoring location
- HS2 monitoring location
- Air quality modelling receptors (construction)
- Air quality modelling receptors (operation)

| | |
|------------|---|
| Map Number | AQ-01-302-L1 |
| Map Name | Air Quality Monitoring Locations and Receptors SES1 and AP1 ES |
| | Community Area MA02: Wimboldsley to Lostock Gralam |

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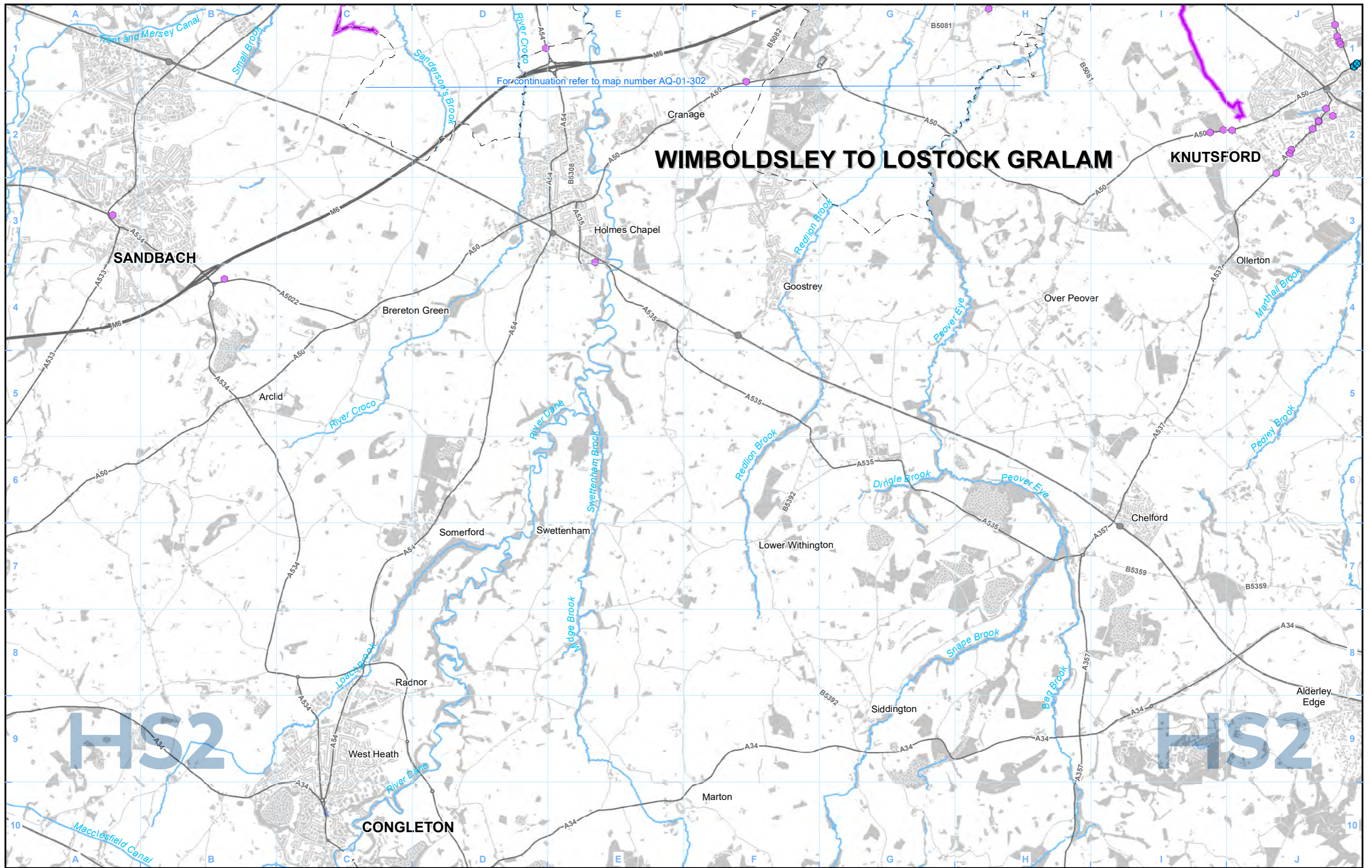
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WIMBOLDSLEY TO LOSTOCK GRALAM

For continuation refer to map number AQ-01-302

Legend

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| Map Number | AQ-01-302-R1 |
| Map Name | Air Quality Monitoring Locations and Receptors SES1 and AP1 ES |
| | Community Area MA02: Wimboldsley to Lostock Gralam |

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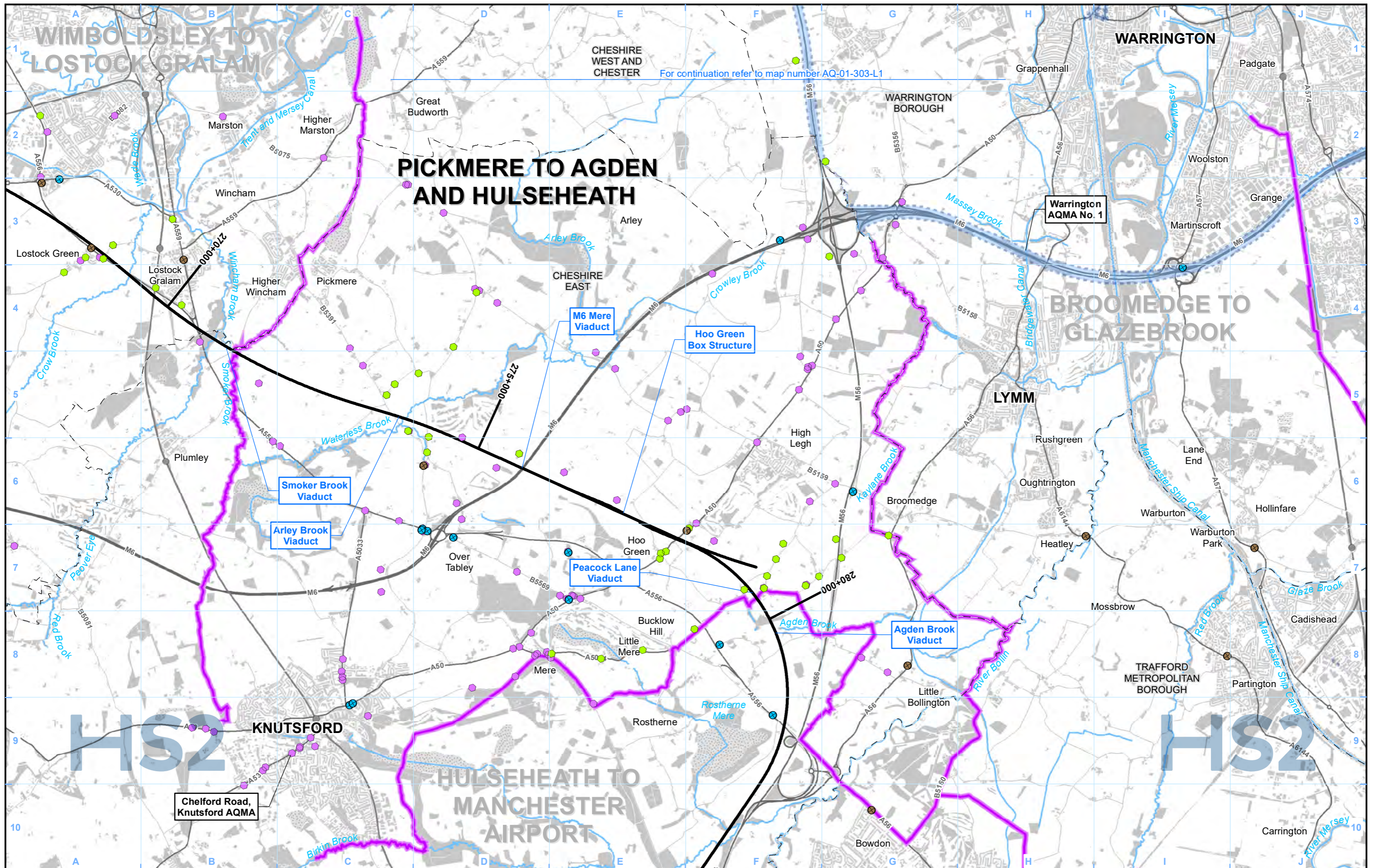
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High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 1 and Additional Provision 1 Environmental Statement

MA03: Pickmere to Agden and Hulseheath

AQ-01 – Air Quality Monitoring Locations and Receptors



Legend

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|--|---------------------------|--|
| Route in tunnel | Watercourse | Defra Air Quality Management Areas 2021 (AQMA) |
| Route on surface | Water body | Diffusion tube monitoring location |
| Depot, station, headhouse or portal building | Woodland | Continuous monitoring location |
| Community area boundary | Existing railway station | HS2 monitoring location |
| County boundary | Existing rail line tunnel | Air quality modelling receptors (construction) |
| District/Borough boundary | Airport | Air quality modelling receptors (operation) |

Map Number: **AQ-01-303**

Map Name: **Air Quality Monitoring Locations and Receptors SES1 and AP1 ES**

Community Area MA03:
Pickmere to Agden and Hulseheath

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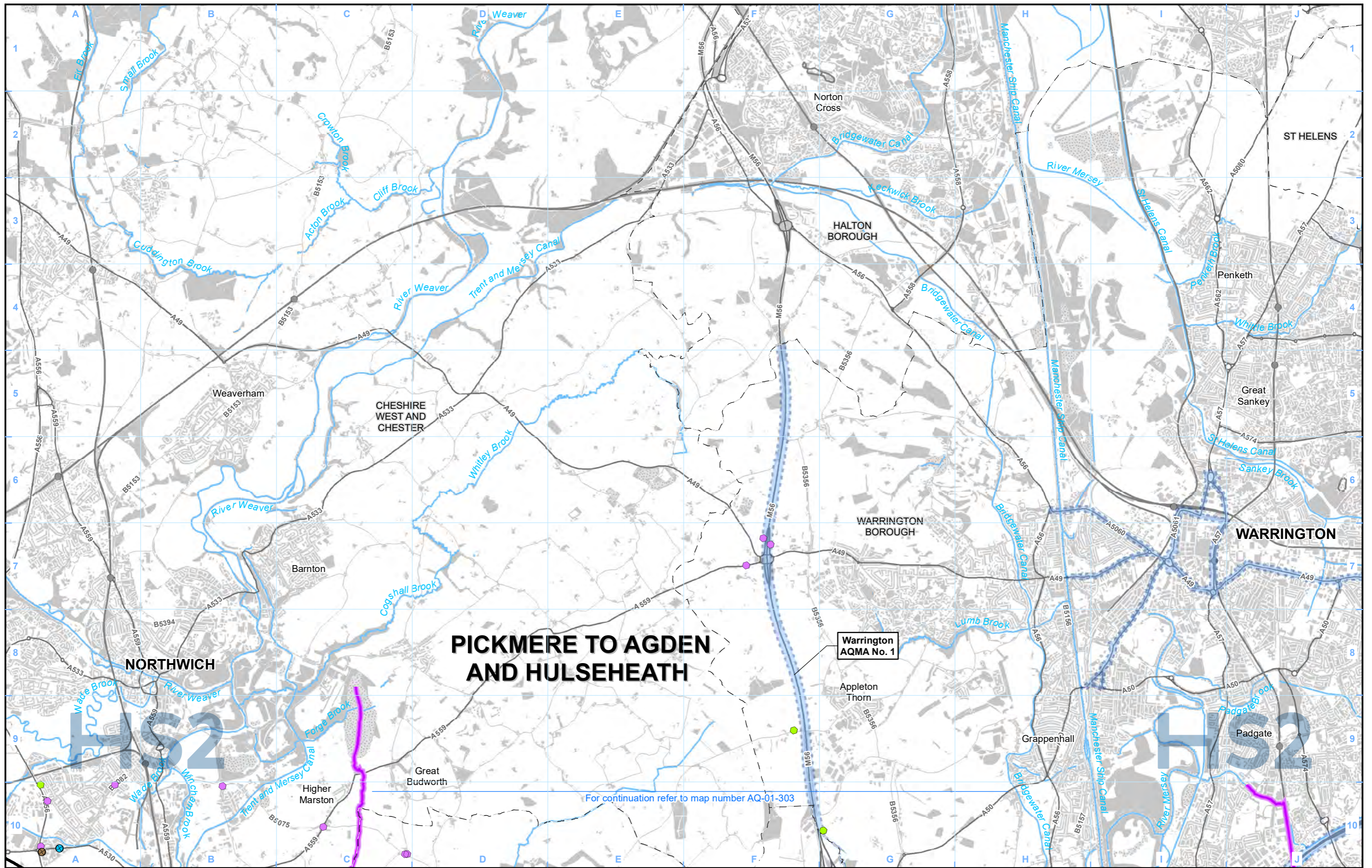
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PICKMERE TO AGDEN AND HULSEHEATH

For continuation refer to map number AQ-01-303

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

- Watercourse
- Water body
- Woodland
- Existing railway station
- Existing rail line tunnel
- Airport

- Defra Air Quality Management Areas 2021 (AQMA)
- Diffusion tube monitoring location
- Continuous monitoring location
- HS2 monitoring location
- Air quality modelling receptors (construction)
- Air quality modelling receptors (operation)

| | |
|------------|---|
| Map Number | AQ-01-303-L1 |
| Map Name | Air Quality Monitoring Locations and Receptors SES1 and AP1 ES |
| | Community Area MA03: Pickmere to Agden and Hulseheath |

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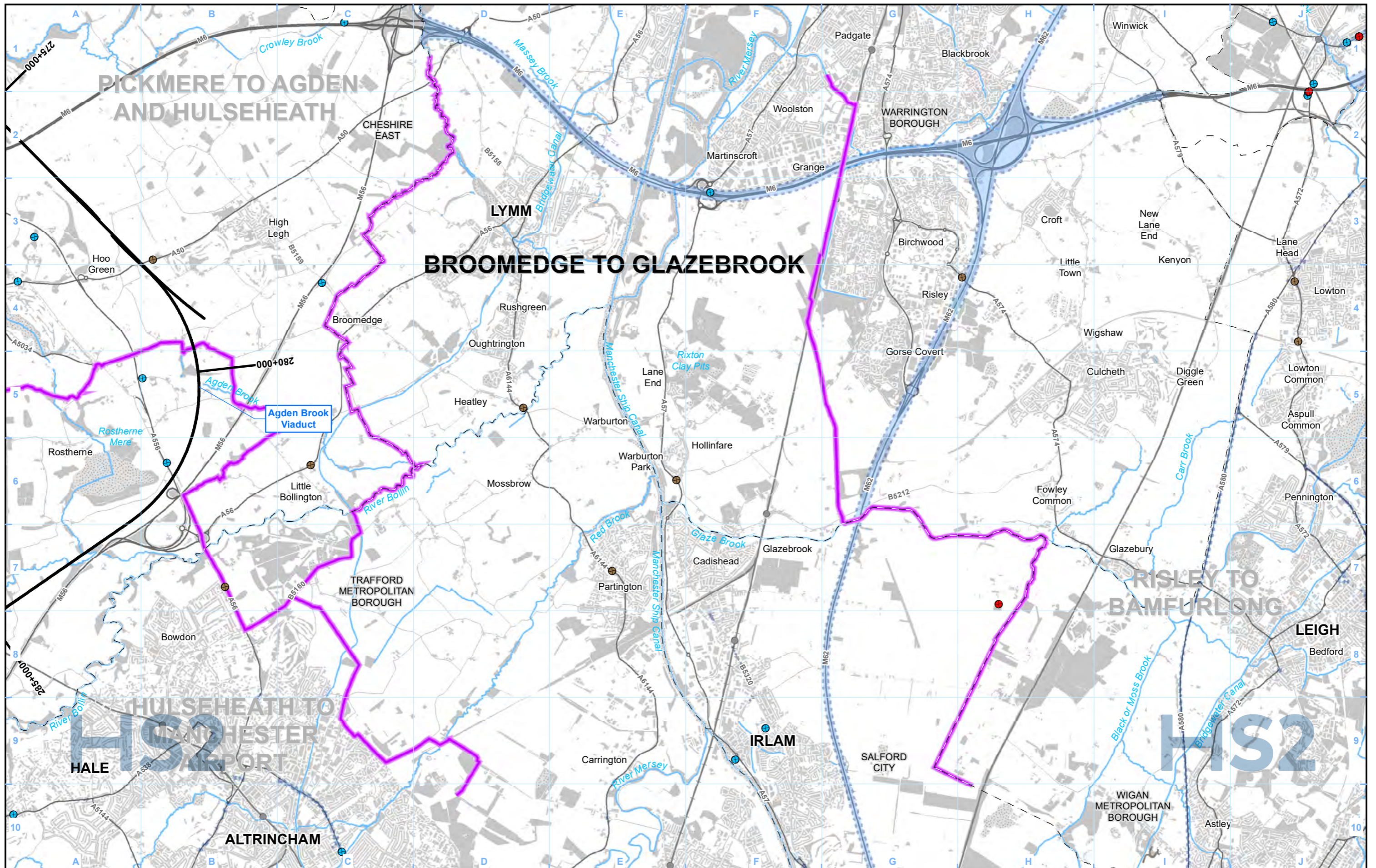
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High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 1 and Additional Provision 1 Environmental Statement

MA04: Broomedge to Glazebrook

AQ-01 – Air Quality Monitoring Locations and Receptors



Legend

- Route in tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Community area boundary
- County boundary
- District/Borough boundary
- Watercourse
- Water body
- Woodland
- Existing railway station
- Existing rail line tunnel
- Airport
- Defra Air Quality Management Areas 2021 (AQMA)
- Diffusion tube monitoring location
- Continuous monitoring location
- HS2 monitoring location
- Air quality modelling receptors (construction)
- Air quality modelling receptors (operation)

Map Number: **AQ-01-304**

Map Name: **Air Quality Monitoring Locations and Receptors SES1 and AP1 ES**

Community Area MA04: Broomedge to Glazebrook

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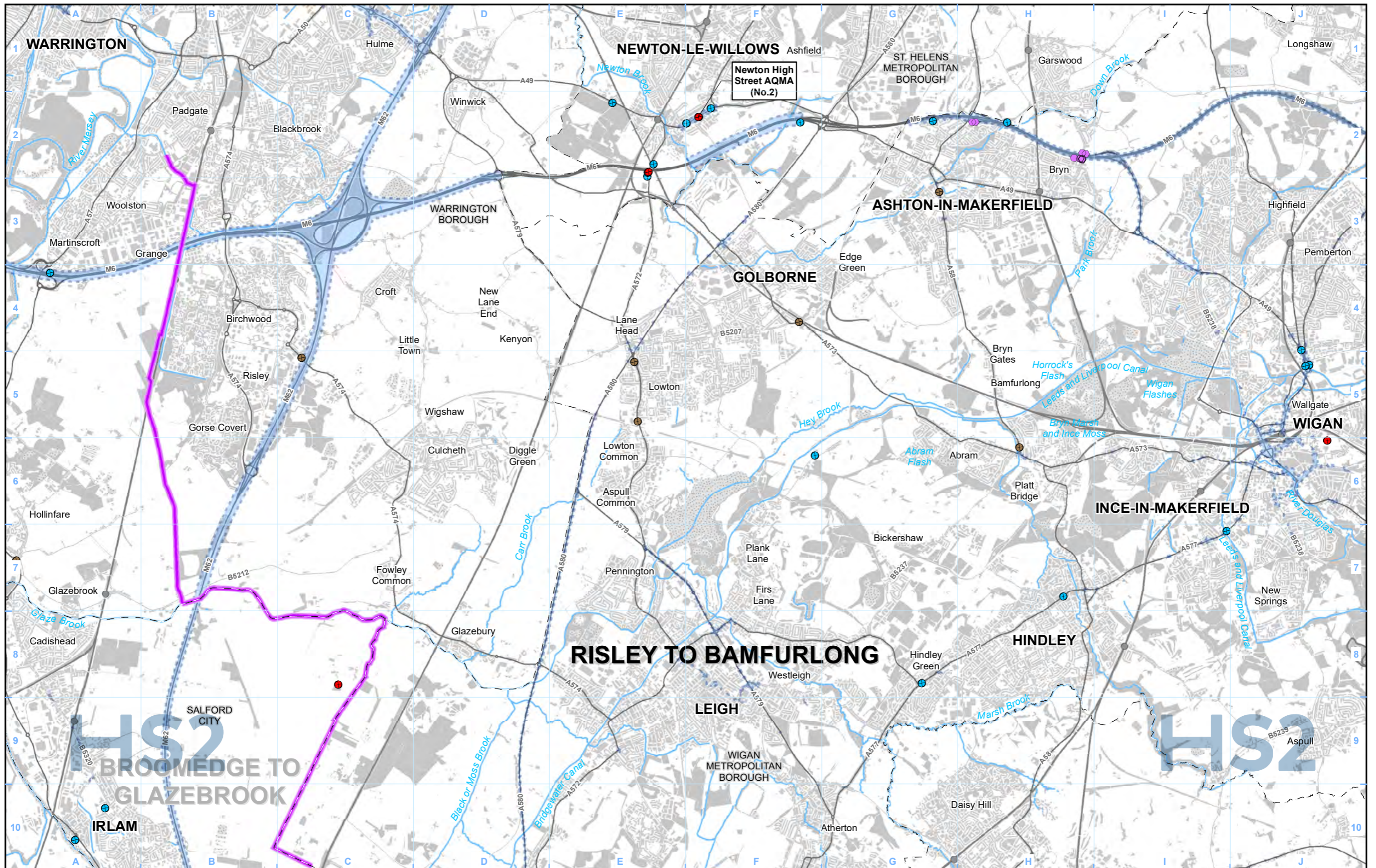
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High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 1 and Additional Provision 1 Environmental Statement

MA05: Risley to Bamfurlong

AQ-01 – Air Quality Monitoring Locations and Receptors



| Legend | | |
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|--|---|
| Map Number | AQ-01-305 |
| Map Name | Air Quality Monitoring Locations and Receptors SES1 and AP1 ES |
| Community Area MA05: Risley to Bamfurlong | |

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