

## **High Speed Rail (Crewe – Manchester)**

**Background information and data  
accompanying SES1 and AP1 ES**

### **Map Book**

Ecology (EC-02, EC-04, EC-05, EC-06, EC-08, EC-10, EC-11, EC-12)





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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	Map series description
EC-02 - Phase 1 Habitat (1:10,000)	This map series shows Phase 1 habitat survey information for land required and within 250m of the CCB of the Proposed Scheme at a scale of 1:10,000. Where it has not been possible to gain access for field surveys, or the area mapped is between 250-500m from the CCB, the information is based on available desk studies and interpretation of aerial photography.
EC-04 - Amphibians	This map series shows the results of amphibian surveys conducted to inform the Environmental Statement. It principally details the results of Great Crested Newt surveys. In addition, it shows the location of any 'exceptional' populations of common amphibians recorded.
EC-05 - Bat - Roost	This map series shows results of field surveys conducted to investigate the potential for trees, buildings, or structures to support roosting bats. It shows the location of roosts confirmed by field surveys and features identified as having a high or moderate potential to support roosting bats.
EC-06 - Bat - Activity	This map series shows the location of bat activity surveys conducted to inform the Environmental Statement. In addition, it shows the location of the key bat foraging and commuting routes, which have been established based on the survey work conducted.
EC-08 - Breeding Birds - Protected and Notable Species	This map series shows records of protected and/or notable breeding birds considering the impacts of the Proposed Scheme. The location of nest sites for species, such as Barn Owl and raptor species which may be liable to persecution, are not displayed.
EC-10 - Phase 2 Habitat Survey	This map series shows the extent of detailed habitat surveys undertaken to inform the Environmental Statement. The map shows the location of hedgerows that qualify as 'Important hedgerows' under the Hedgerows Regulations (1997).
EC-11 - Other Protected and Notable Species (1)	This map series shows the extent of protected species surveys conducted to inform the Environmental Statement.
EC-12 - Other Protected and Notable Species (2)	This map series shows the extent of protected species surveys conducted to inform the Environmental Statement.



## Mapping explanatory notes

This map book is part of the background information and data (BID) for Phase 2b of the proposed High Speed Two (HS2) rail network between Crewe and Manchester (the Proposed Scheme), and comprises ecological baseline data. This map book does not form part of the Supplementary Environmental Statement 1 (SES1) and the Additional Provision 1 Environmental Statement (AP1 ES), but presents relevant ecological information for the Proposed Scheme.

## 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 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.

## **High Speed Rail (Crewe – Manchester)**

**Background information and data accompanying  
Supplementary Environmental Statement 1 and  
Additional Provision 1 Environmental Statement**

Data dictionary and definitions

<b>Legend features</b>	<b>Definition</b>	<b>Source</b>	<b>Copyright</b>
250m radius from all water bodies where presence of GCN is confirmed	250m radius from all water bodies where presence of Great Crested Newt (GCN) is confirmed.	High Speed Two (HS2) Ltd	
500m radius from all water bodies where presence of GCN is confirmed	500m radius from all water bodies where presence of Great Crested Newt (GCN) is confirmed.	High Speed Two (HS2) Ltd	
50m radius from all water bodies where presence of GCN is confirmed	50m radius from all water bodies where presence of Great Crested Newt (GCN) is confirmed.	High Speed Two (HS2) Ltd	
Activity transect route	Transect route that was surveyed during bat activity surveys.	High Speed Two (HS2) Ltd	
Aquatic invertebrate survey location	Location where aquatic invertebrate surveys were conducted.	High Speed Two (HS2) Ltd	
Area contains new survey data	Areas where new survey data has been collected.	High Speed Two (HS2) Ltd	
Areas isolated by significant barriers to amphibian movement	Areas isolated by significant barriers to amphibian movement.	High Speed Two (HS2) Ltd	
Assumed key areas of foraging habitat	Likely areas of bat foraging habitat for local bat populations, derived from bat activity survey results.	High Speed Two (HS2) Ltd	
Assumed key commuting route	Key commuting and foraging bat routes that have been identified by an ecologist after review of available survey data and application of professional judgement.	High Speed Two (HS2) Ltd	
Bat activity static detector location	Location where bat activity static detectors were used during survey period.	High Speed Two (HS2) Ltd	
Bird of Conservation Concern	Field survey records of selected protected and/or notable breeding birds that are considered most relevant in considering the impacts of the Proposed Scheme on breeding birds.	High Speed Two (HS2) Ltd	
Breeding birds - survey extent	Area where breeding birds survey was conducted.	High Speed Two (HS2) Ltd	

Legend features	Definition	Source	Copyright
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.
Confirmed bat roost - building Potential to support roosting bats - buildings	Locations where bat roost survey has been completed within buildings. Buildings are categorised into those with potential to support bat roosts (high and medium potential) and those that have confirmed roosts. Confirmed roosts are further categorised into Hibernation, Maternity, Other or Multiple roosts.	High Speed Two (HS2) Ltd	
Confirmed bat roost – trees Potential to support roosting bats – trees	Locations where bat roost survey has been completed within trees. Trees are categorised into those with potential to support bat roosts (high and medium potential) and those that have confirmed roosts. Confirmed roosts are further categorised into Hibernation, Maternity, Other or Multiple roosts.	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.
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.
Ditch vegetation survey	Extent of Ditch vegetation surveys.	High Speed Two (HS2) Ltd	
eDNA survey complete Survey incomplete Scoped in - HSI/walkover only Scoped in - no access permission Scoped out - no survey required	Areas where a GCN survey was completed. Survey varies from population size class assessment, presence/absence survey or scoping visit only where it was then scoped out or it was identified as requiring further survey.	High Speed Two (HS2) Ltd	
Fish survey location Terrestrial invertebrate survey extent	Location where fish and aquatic invertebrate surveys were conducted.	High Speed Two (HS2) Ltd	
Important' Hedgerow confirmed by field survey Possibly 'Important' Hedgerow - no access available for survey	Location of those hedgerows that have been identified as 'important hedgerows' or possible 'important hedgerows' under the wildlife and landscape criteria in the Hedgerows Regulations (2007).	High Speed Two (HS2) Ltd	
Lake habitat	Extent of lake habitat surveys.	High Speed Two (HS2) Ltd	



Legend features	Definition	Source	Copyright
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	
National Vegetation Classification survey	Extent of National Vegetation Classification surveys.	High Speed Two (HS2) Ltd	
Other notable species relevant to assessment	Field survey records of selected protected and/or notable breeding birds that are considered most relevant in considering the impacts of the Proposed Scheme on breeding birds.	High Speed Two (HS2) Ltd	
Otter: Active holt Potential holt Suitable habitat	Location where otter surveys have been completed. Results vary from suitable habitat for otter, potential otter holt and active otter holt.	High Speed Two (HS2) Ltd	
Pond survey: National pond survey PSYM Rapid assessment method	Location and type of pond surveys conducted.	High Speed Two (HS2) Ltd	
River habitat survey extent	Extent of river habitat surveys.	High Speed Two (HS2) Ltd	
River macrophyte survey extent	Extent of river macrophyte surveys.	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	
Species listed on Annex I of the Birds Directive	Field survey records of selected protected and/or notable breeding birds that are considered most relevant in considering the impacts of the Proposed Scheme on breeding birds.	High Speed Two (HS2) Ltd	
Species listed on Annex I of the Birds Directive and Schedule 1 of the Wildlife and Countryside Act	Field survey records of selected protected and/or notable breeding birds that are considered most relevant in considering the impacts of the Proposed Scheme on breeding birds.	High Speed Two (HS2) Ltd	
Species listed on Schedule 1 of the Birds Directive	Field survey records of selected protected and/or notable breeding birds that are considered most relevant in considering the impacts of the Proposed Scheme on breeding birds.	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.
Water vole: Survey undertaken, presence confirmed Survey undertaken, assumed absent Watercourse potentially suitable for water vole, no or limited access for survey	Extent of water vole survey. Those areas where access was available either had confirmed presence or water voles were assumed absent.	High Speed Two (HS2) Ltd	



Legend features	Definition	Source	Copyright
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.
White clawed crayfish: Manual search and/or trapping conducted Site identified as potentially suitable but no access available	Location where white clawed crayfish survey was conducted. Location categorised as to whether presence was confirmed, assumed absent or no access was available.	High Speed Two (HS2) Ltd	
Woodland (not verified by survey)	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.
Woodland (verified by survey)	Woodland areas derived from Ordnance Survey MasterMap data, limited in extent to 500m from the CCB.	High Speed Two (HS2) Ltd	

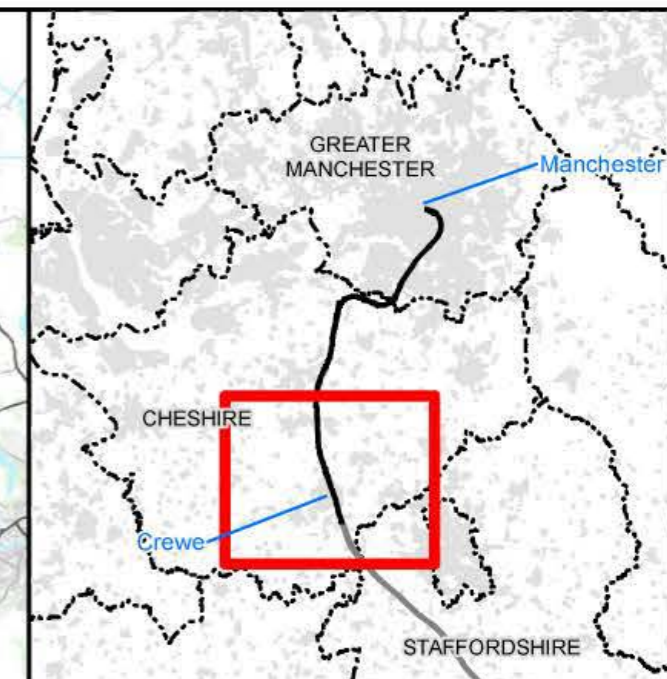
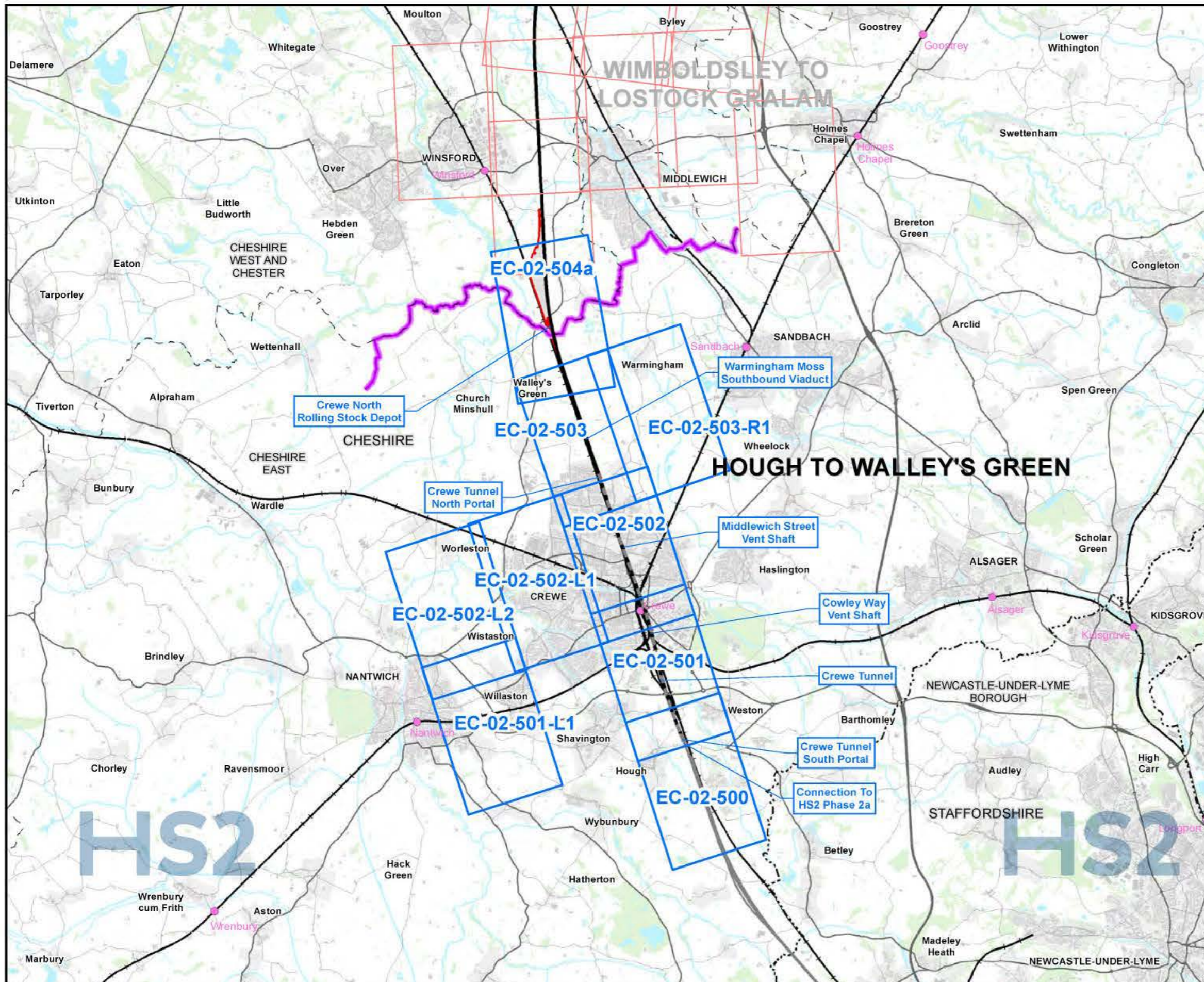
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## **High Speed Rail (Crewe – Manchester)**

**Background information and data accompanying  
Supplementary Environmental Statement 1 and  
Additional Provision 1 Environmental Statement**

EC-02 – Phase 1 Habitat (1:10,000)





**Map Series Information:**

This map series shows Phase 1 habitat survey information for land required and in the vicinity of the Proposed Scheme at a scale of 1:10,000. Where it has not been possible to gain access for field survey, the information is based on available desk studies and interpretation of aerial photography.

- 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 with amendment
  - Map sheet included in this community with no amendment
  - Map sheets not included in this community area

Map Number: EC-02-INDEX-MA01

Map Name: Index Map of:  
Phase 1 Habitat (1:10,000)  
SES1 and AP1 ES

Community Area MA01:  
Hough to Walley's Green

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

























































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





































**Phase 1 Habitat survey legend**

**Habitat Areas**

	Broadleaved woodland - semi-natural		Lichen/bryophyte heath
	Broadleaved woodland - plantation		Montane heath/dwarf herb
	Coniferous woodland - semi-natural		Dry heath/acid grassland
	Coniferous woodland - plantation		Wet heath/acid grassland
	Mixed woodland - semi-natural		Blanket sphagnum bog
	Mixed woodland - plantation		Raised sphagnum bog
	Scrub - dense/continuous		Wet modified bog
	Scrub - scattered		Dry modified bog
	Broadleaved parkland/scattered trees		Flush and spring - acid/neutral flush
	Coniferous parkland/scattered trees		Flush and spring - basic flush
	Mixed parkland/scattered trees		Fen
	Broadleaved woodland - recently felled		Fen - valley mire
	Coniferous woodland - recently felled		Fen - basin mire
	Mixed woodland - recently felled		Fen - flood plain mire
	Acid grassland - unimproved		Peat - bare
	Acid grassland - semi-improved		Swamp
	Neutral grassland - unimproved		Marginal and inundation - inundation vegetation
	Neutral grassland - semi-improved		Standing water
	Calcareous grassland - unimproved		Standing water - eutrophic
	Calcareous grassland - semi-improved		Standing water - mesotrophic
	proved Improved grassland		Standing water - oligotrophic
	Marsh/marshy grassland		Standing water - dystrophic
	Poor semi-improved grassland		Standing water - marl
	Bracken - continuous		Standing water - brackish
	Bracken - scattered		Running water
	Upland species-rich ledges		Running water - eutrophic
	Other tall herb and fern - ruderal		Running water - mesotrophic
	Other tall herb and fern - non ruderal		Running water - oligotrophic
	Dry dwarf shrub heath - acid		Running water - dystrophic
	Dry dwarf shrub heath - basic		Running water - marl
	Wet dwarf shrub heath		Running water - brackish

	Inland cliff - acid/neutral
	Inland cliff - basic
	Scree - acid/neutral
	Scree - basic
	Limestone pavement
	Other exposure - acid/neutral
	Other exposure - basic
	Cave
	Quarry
	Spoil
	Mine
	Refuse-tip
	Cultivated/disturbed land - arable
	Cultivated/disturbed land - amenity grassland
	Cultivated/disturbed land - ephemeral/short perennial
	Introduced shrub
	Intact hedge - native species-rich
	Intact hedge - species-poor
	Defunct hedge - native species-rich
	Defunct hedge - species-poor
	Hedge with trees - native species-rich
	Hedge with trees - species-poor
	Fence
	Wall
	Dry ditch
	Boundary removed
	Earth bank
	Caravan site
	Buildings
	Bare ground
	Other habitat

<b>Linear Habitats</b>
   Scrub - scattered
   Broadleaved parkland/scattered trees
   Coniferous parkland/scattered trees
   Mixed parkland/scattered trees
 Upland species-rich ledges
 Marginal and inundation - marginal vegetation
 Running water
<b>E</b>  Running water - eutrophic
<b>M</b>  Running water - mesotrophic
<b>O</b>  Running water - oligotrophic
<b>D</b>  Running water - dystrophic
<b>C</b>  Running water - marl
<b>B</b>  Running water - brackish
 Inland cliff
 Scree
 Intact hedge - native species-rich
 Intact hedge - species-poor
 Defunct hedge - native species-rich
 Defunct hedge - species-poor
 Hedge with trees - native species-rich
 Hedge with trees - species-poor
 Fence
 Wall
 Dry ditch
 Boundary removed
 Earth bank

<b>Point Habitats</b>
 Scrub - scattered
 Broadleaved parkland/scattered trees
 Coniferous parkland/scattered trees

Map Number: EC-02 - Legend  
 Map Name: EC-02 - Phase 1 Habitat Survey Legend



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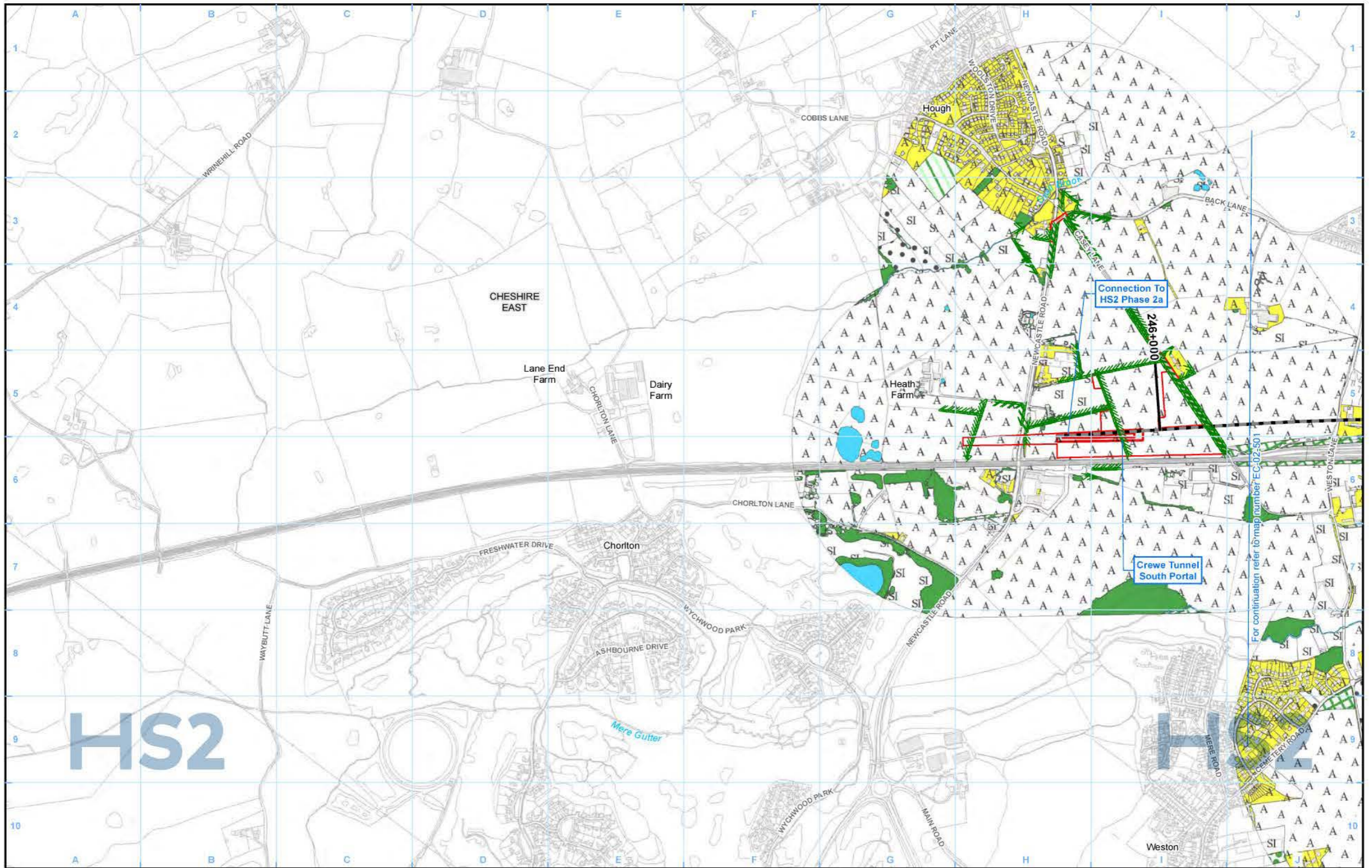
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**Legend**

- 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

Area contains new survey data

For full legend please refer to EC-02 Legend page

Map Number: EC-02-500

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA01: Hough to Walley's Green

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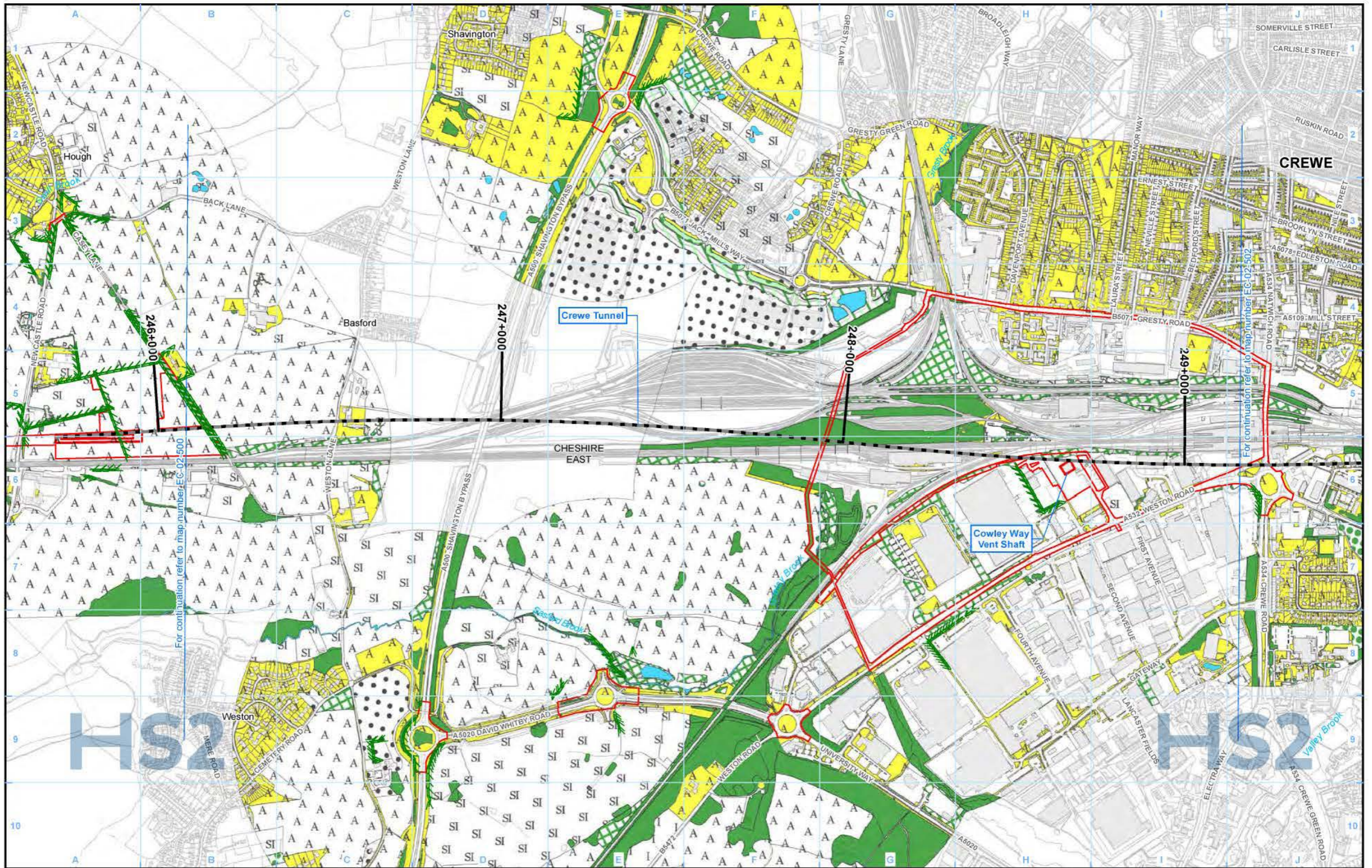
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Scale at A3: 1:10,000

For continuation refer to map number EC-02-501





For continuation refer to map number EC-02-500

For continuation refer to map number EC-02-502

**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
- Area contains new survey data

For full legend please refer to EC-02 Legend page

Map Number: EC-02-501

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA01: Hough to Walley's Green

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100 200 300 400  
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
- Area contains new survey data

For full legend please refer to EC-02 Legend page

Map Number: EC-02-501-L1

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA01: Hough to Walley's Green

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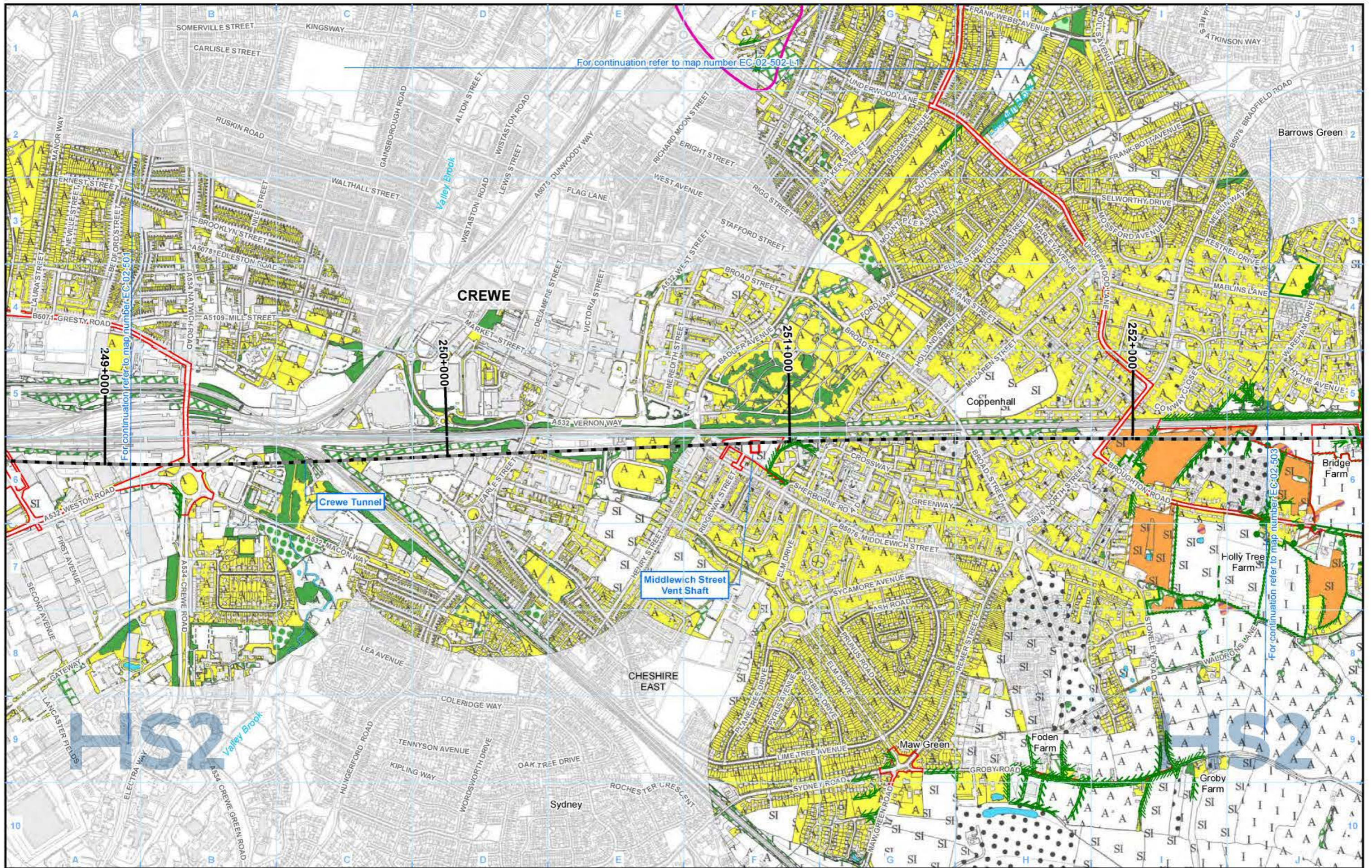
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Scale at A3: 1:10,000

Date: 21/04/22





**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

For full legend please refer to EC-02 Legend page

- Area contains new survey data

Map Number: EC-02-502

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA01: Hough to Walley's Green

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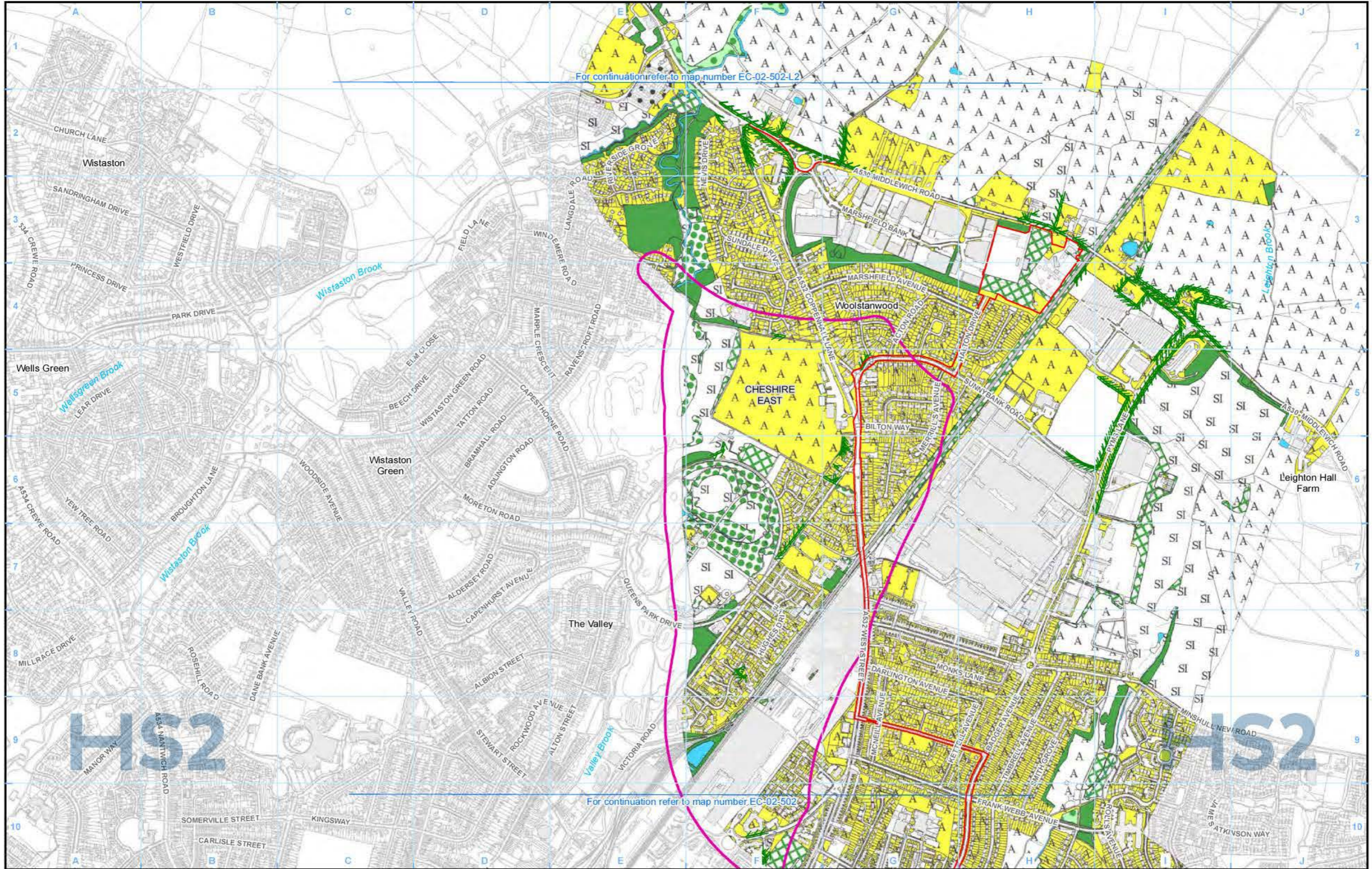
Date: 21/04/22

Scale at A3: 1:10,000



For continuation refer to map number EC-02-502-L2

For continuation refer to map number EC-02-502



**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

Area contains new survey data

For full legend please refer to EC-02 Legend page

Map Number: EC-02-502-L1

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA01: Hough to Walley's Green

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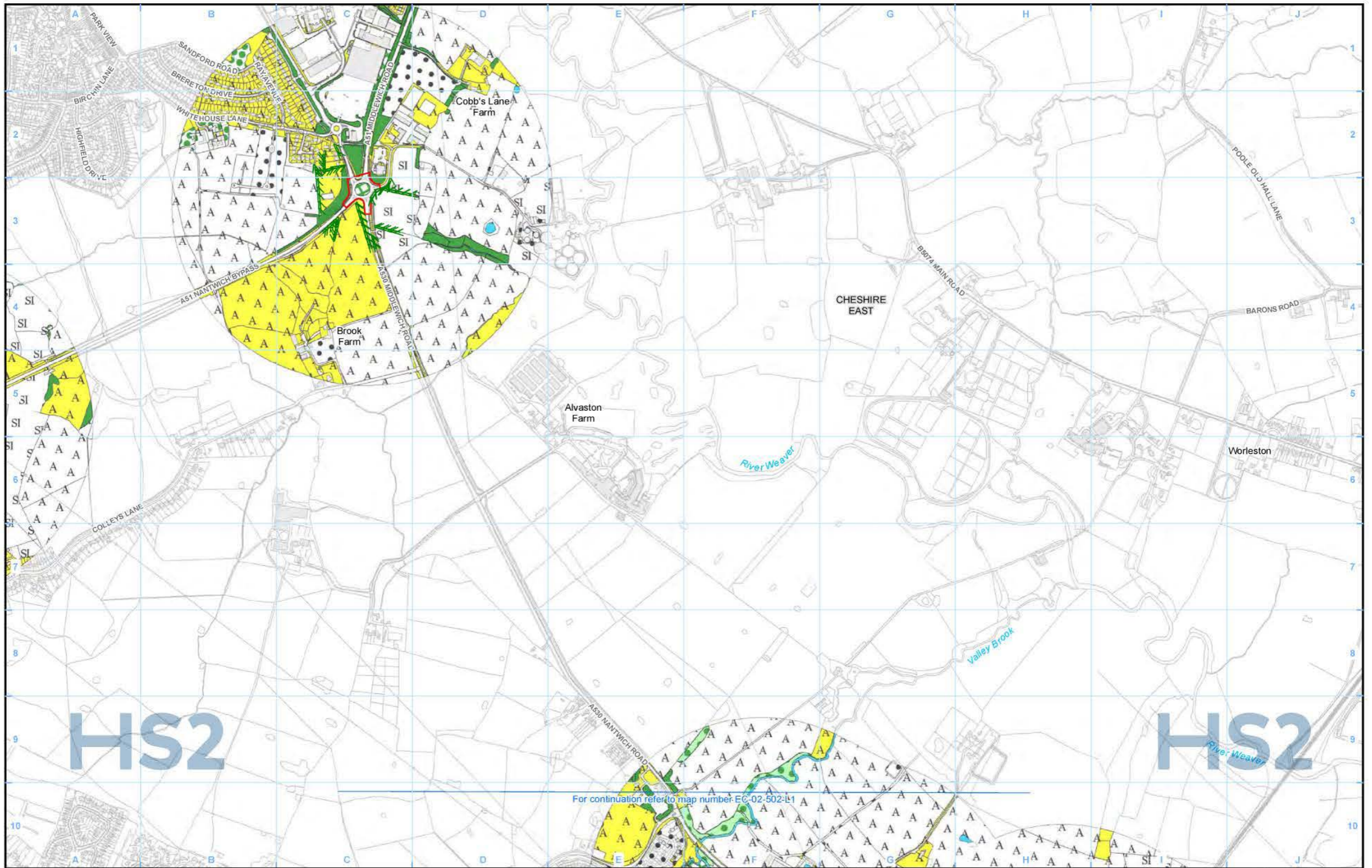
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Doc Number: 2PT24-MWJ-EV-MAP-M000-002829-P01

Date: 21/04/22

Scale at A3: 1:10,000





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
	Area contains new survey data
For full legend please refer to EC-02 Legend page	

Map Number	EC-02-502-L2
Map Name	Phase 1 Habitat (1:10,000) SES1 and AP1 ES
	Community Area MA01: Hough to Walley's Green

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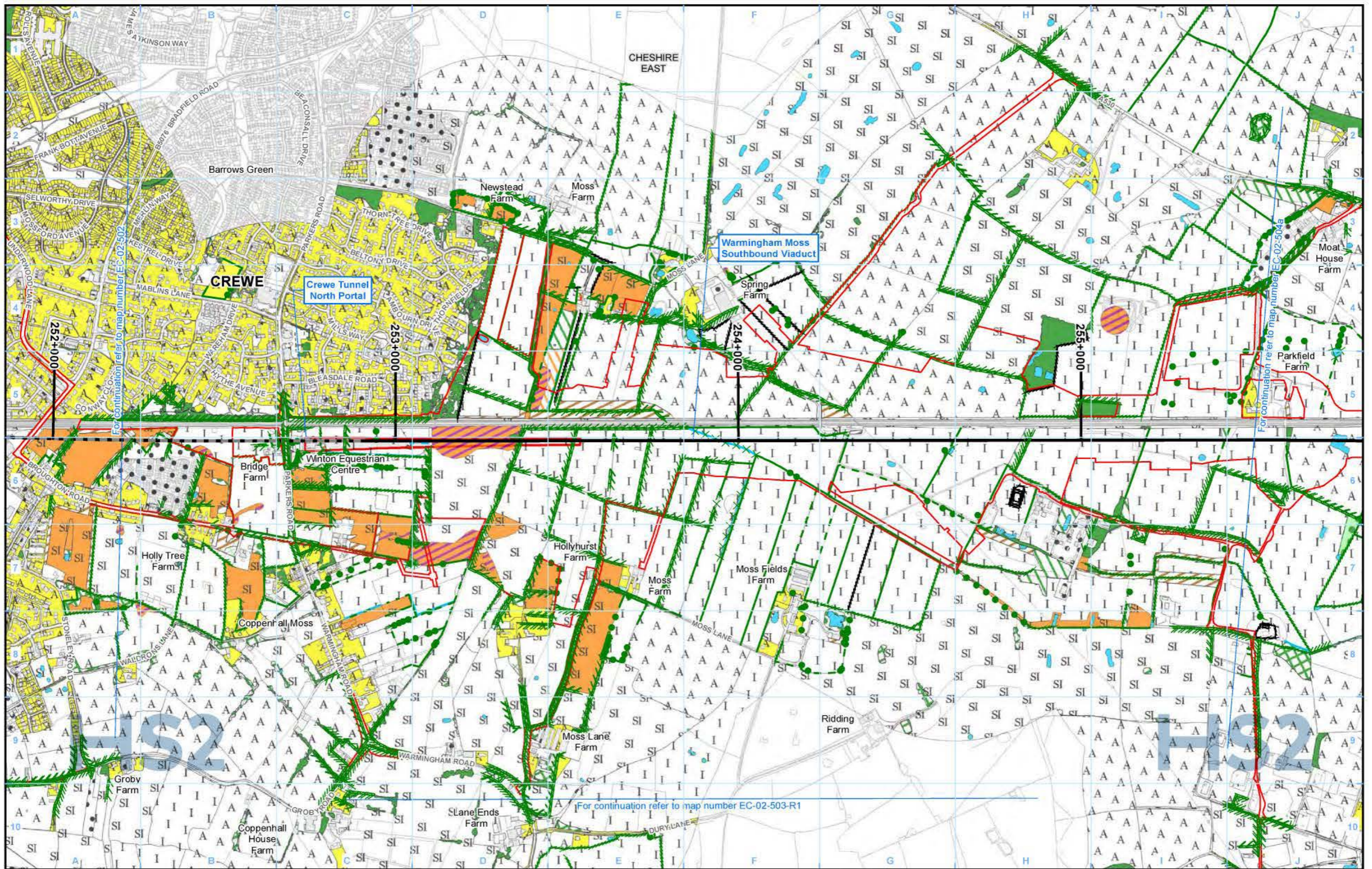
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Scale at A3: 1:10,000

Date: 21/04/22





- 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
  - Area contains new survey data
- For full legend please refer to EC-02 Legend page

Map Number: EC-02-503

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA01: Hough to Walley's Green

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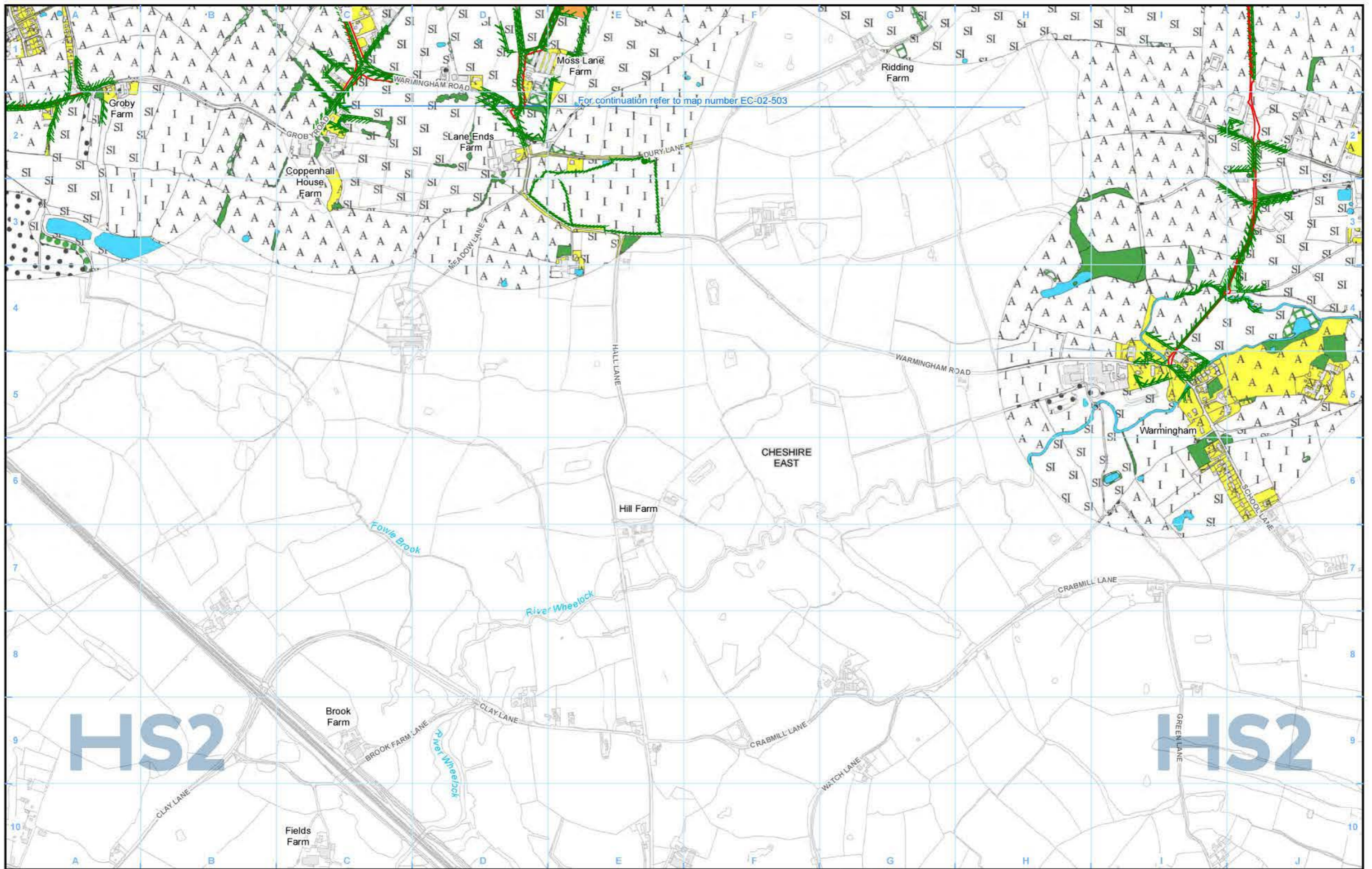
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Date: 21/04/22





For continuation refer to map number EC-02-503

**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

For full legend please refer to EC-02 Legend page

- Area contains new survey data

Map Number: EC-02-503-R1

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA01: Hough to Walley's Green

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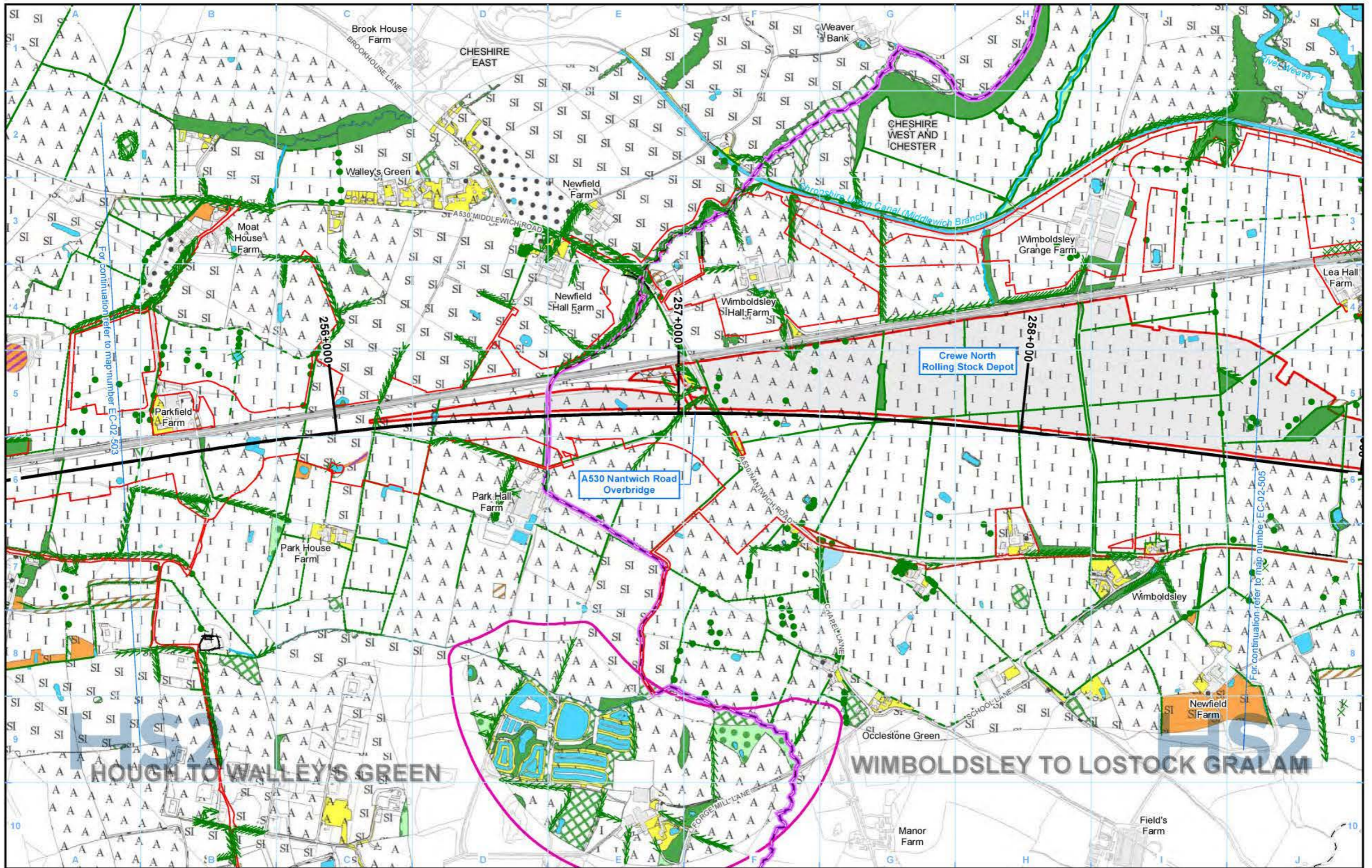
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Date: 21/04/22

Scale at A3: 1:10,000





**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
- For full legend please refer to EC-02 Legend page
- Area contains new survey data

Map Number: EC-02-504a

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA01: Hough to Walley's Green

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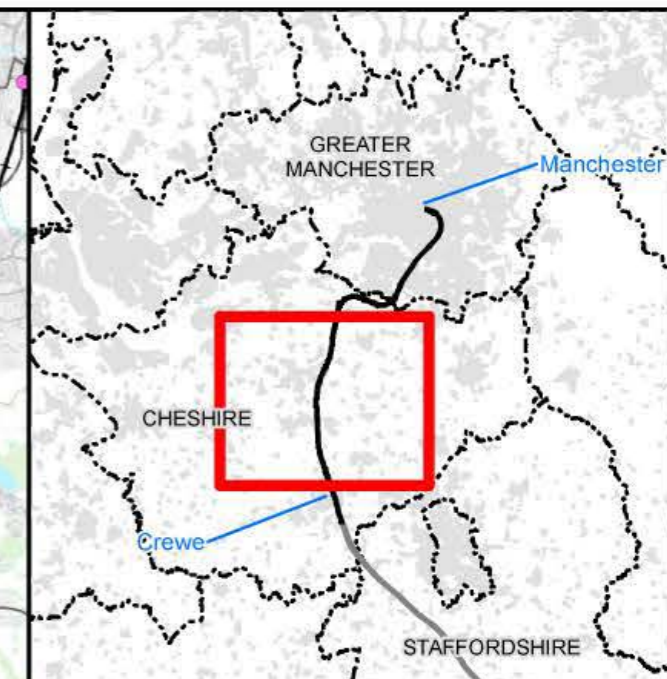
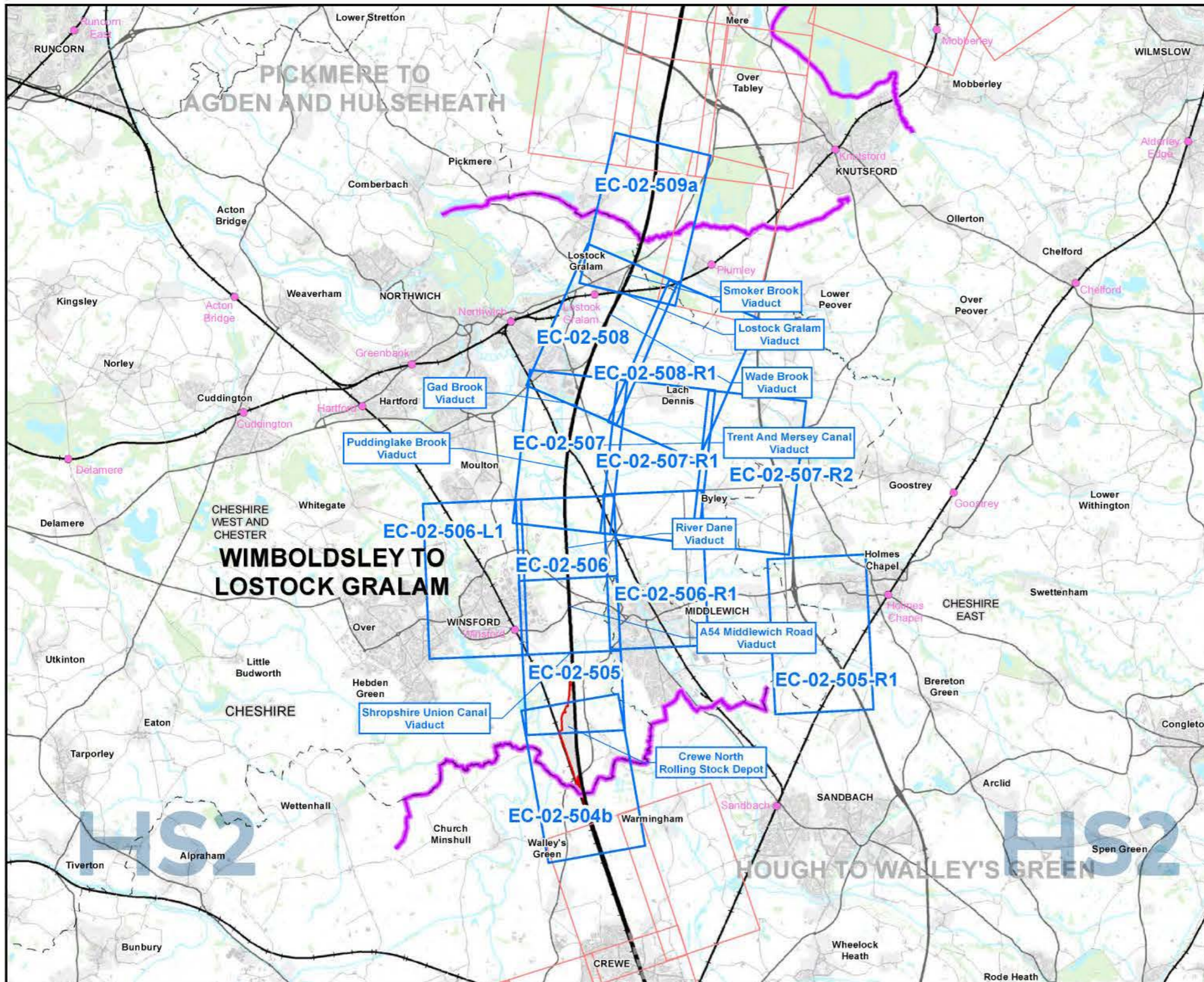
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Date: 21/04/22



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**Map Series Information:**

This map series shows Phase 1 habitat survey information for land required and in the vicinity of the Proposed Scheme at a scale of 1:10,000. Where it has not been possible to gain access for field survey, the information is based on available desk studies and interpretation of aerial photography.

- 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 with amendment
  - Map sheet included in this community with no amendment
  - Map sheets not included in this community area

Map Number: EC-02-INDEX-MA02

Map Name: Index Map of:  
Phase 1 Habitat (1:10,000)  
SES1 and AP1 ES

Community Area MA02:  
Wimboldsley to Lostock Gralam

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

























































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Date: 21/04/22





































**Phase 1 Habitat survey legend**

**Habitat Areas**

	Broadleaved woodland - semi-natural		Lichen/bryophyte heath
	Broadleaved woodland - plantation		Montane heath/dwarf herb
	Coniferous woodland - semi-natural		Dry heath/acid grassland
	Coniferous woodland - plantation		Wet heath/acid grassland
	Mixed woodland - semi-natural		Blanket sphagnum bog
	Mixed woodland - plantation		Raised sphagnum bog
	Scrub - dense/continuous		Wet modified bog
	Scrub - scattered		Dry modified bog
	Broadleaved parkland/scattered trees		Flush and spring - acid/neutral flush
	Coniferous parkland/scattered trees		Flush and spring - basic flush
	Mixed parkland/scattered trees		Fen
	Broadleaved woodland - recently felled		Fen - valley mire
	Coniferous woodland - recently felled		Fen - basin mire
	Mixed woodland - recently felled		Fen - flood plain mire
	Acid grassland - unimproved		Peat - bare
	Acid grassland - semi-improved		Swamp
	Neutral grassland - unimproved		Marginal and inundation - inundation vegetation
	Neutral grassland - semi-improved		Standing water
	Calcareous grassland - unimproved		Standing water - eutrophic
	Calcareous grassland - semi-improved		Standing water - mesotrophic
	proved Improved grassland		Standing water - oligotrophic
	Marsh/marshy grassland		Standing water - dystrophic
	Poor semi-improved grassland		Standing water - marl
	Bracken - continuous		Standing water - brackish
	Bracken - scattered		Running water
	Upland species-rich ledges		Running water - eutrophic
	Other tall herb and fern - ruderal		Running water - mesotrophic
	Other tall herb and fern - non ruderal		Running water - oligotrophic
	Dry dwarf shrub heath - acid		Running water - dystrophic
	Dry dwarf shrub heath - basic		Running water - marl
	Wet dwarf shrub heath		Running water - brackish

	Inland cliff - acid/neutral
	Inland cliff - basic
	Scree - acid/neutral
	Scree - basic
	Limestone pavement
	Other exposure - acid/neutral
	Other exposure - basic
	Cave
	Quarry
	Spoil
	Mine
	Refuse-tip
	Cultivated/disturbed land - arable
	Cultivated/disturbed land - amenity grassland
	Cultivated/disturbed land - ephemeral/short perennial
	Introduced shrub
	Intact hedge - native species-rich
	Intact hedge - species-poor
	Defunct hedge - native species-rich
	Defunct hedge - species-poor
	Hedge with trees - native species-rich
	Hedge with trees - species-poor
	Fence
	Wall
	Dry ditch
	Boundary removed
	Earth bank
	Caravan site
	Buildings
	Bare ground
	Other habitat

<b>Linear Habitats</b>
   Scrub - scattered
   Broadleaved parkland/scattered trees
   Coniferous parkland/scattered trees
   Mixed parkland/scattered trees
 Upland species-rich ledges
 Marginal and inundation - marginal vegetation
 Running water
<b>E</b>  Running water - eutrophic
<b>M</b>  Running water - mesotrophic
<b>O</b>  Running water - oligotrophic
<b>D</b>  Running water - dystrophic
<b>C</b>  Running water - marl
<b>B</b>  Running water - brackish
 Inland cliff
 Scree
 Intact hedge - native species-rich
 Intact hedge - species-poor
 Defunct hedge - native species-rich
 Defunct hedge - species-poor
 Hedge with trees - native species-rich
 Hedge with trees - species-poor
 Fence
 Wall
 Dry ditch
 Boundary removed
 Earth bank

<b>Point Habitats</b>
 Scrub - scattered
 Broadleaved parkland/scattered trees
 Coniferous parkland/scattered trees

Map Number: EC-02 - Legend  
 Map Name: EC-02 - Phase 1 Habitat Survey Legend



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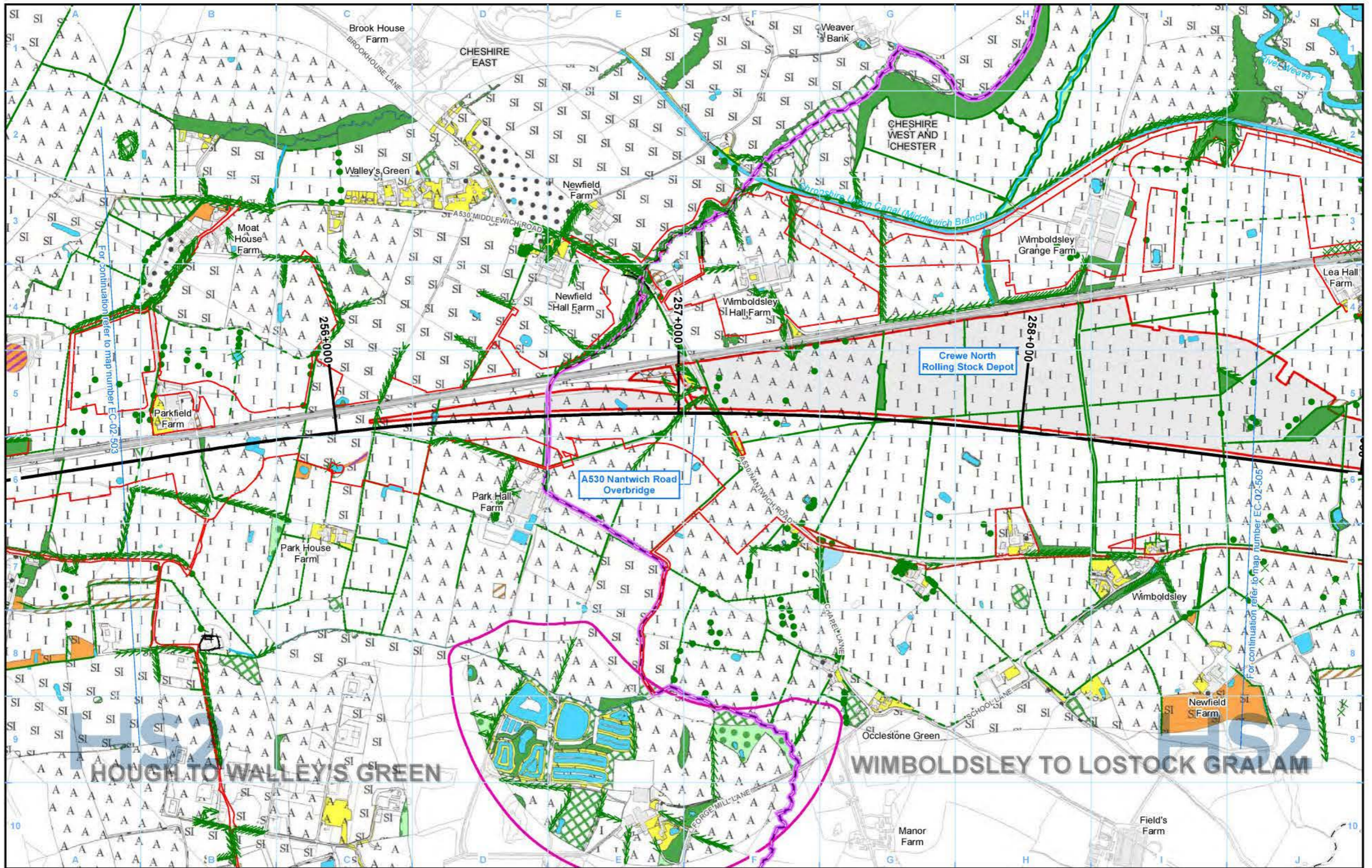
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**Legend**

- 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
- For full legend please refer to EC-02 Legend page
- Area contains new survey data

Map Number: EC-02-504b

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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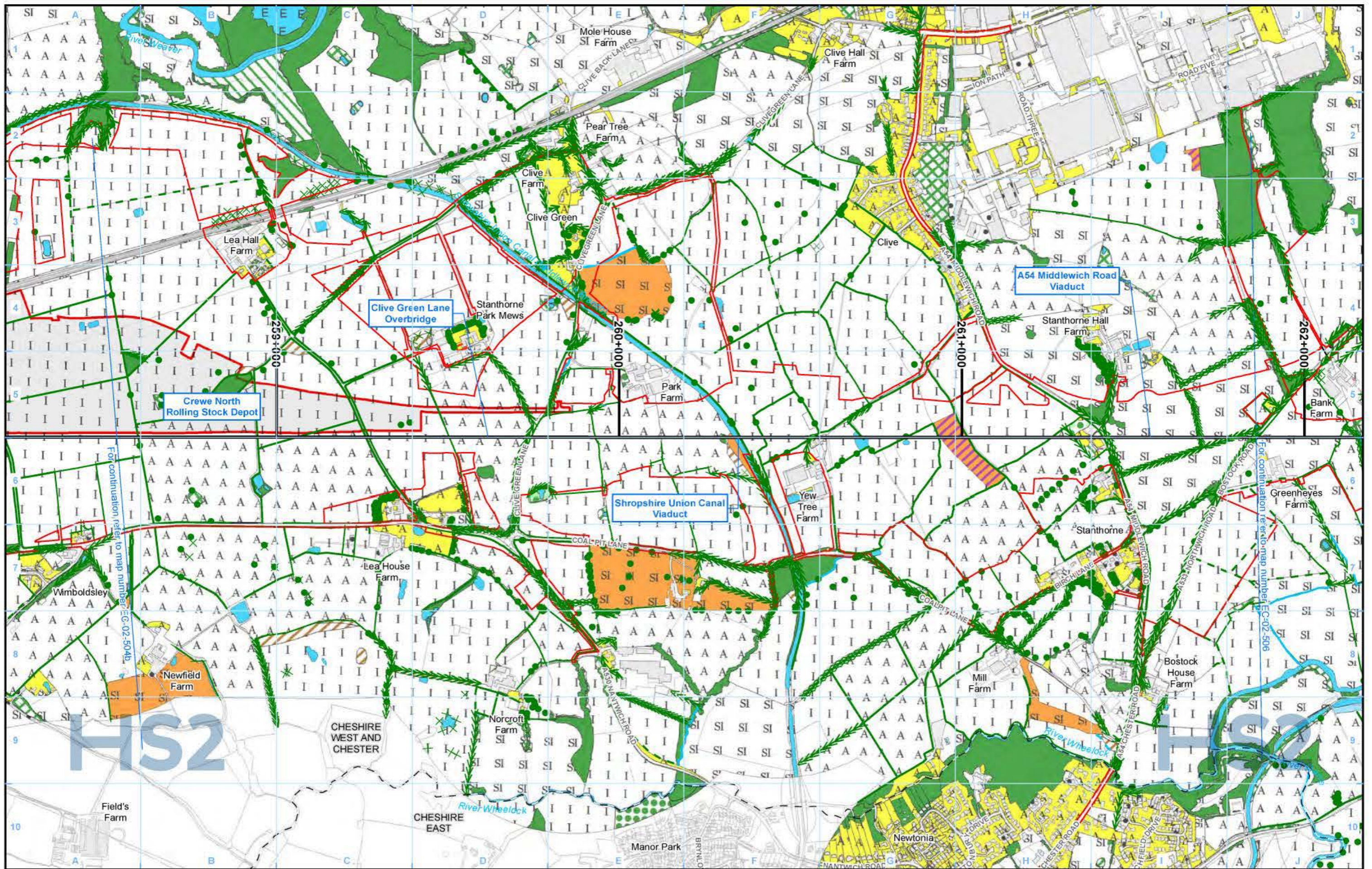
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**Legend**

- 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
- For full legend please refer to EC-02 Legend page
- Area contains new survey data

Map Number: EC-02-505

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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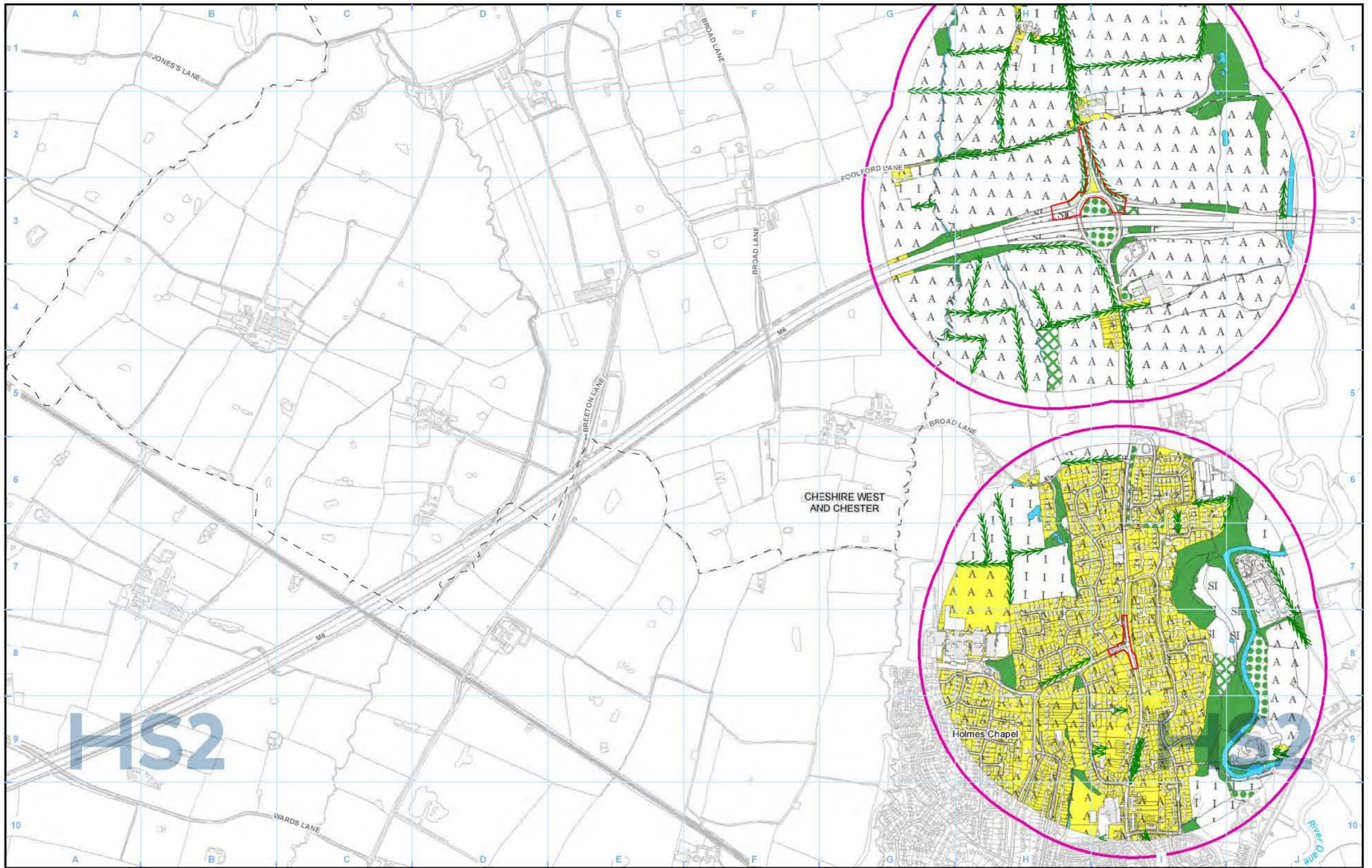
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Date: 21/04/22

Scale at A3: 1:10,000

100 200 300 400  
metres





**HS2**

**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

For full legend please refer to EC-02 Legend page

Area contains new survey data

Map Number: EC-02-505-R1

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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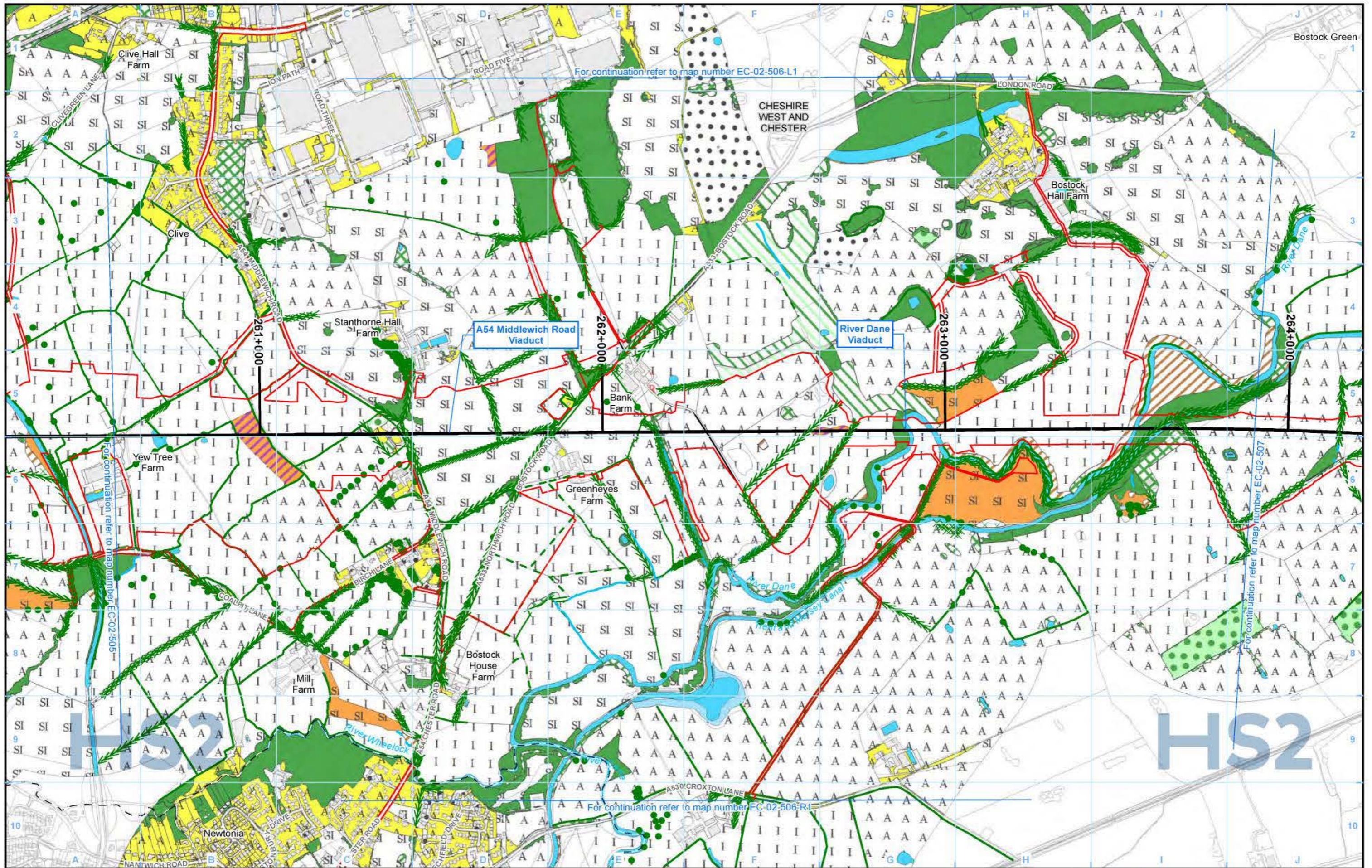
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**Legend**

- 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
- Area contains new survey data

For full legend please refer to EC-02 Legend page

Map Number: EC-02-506

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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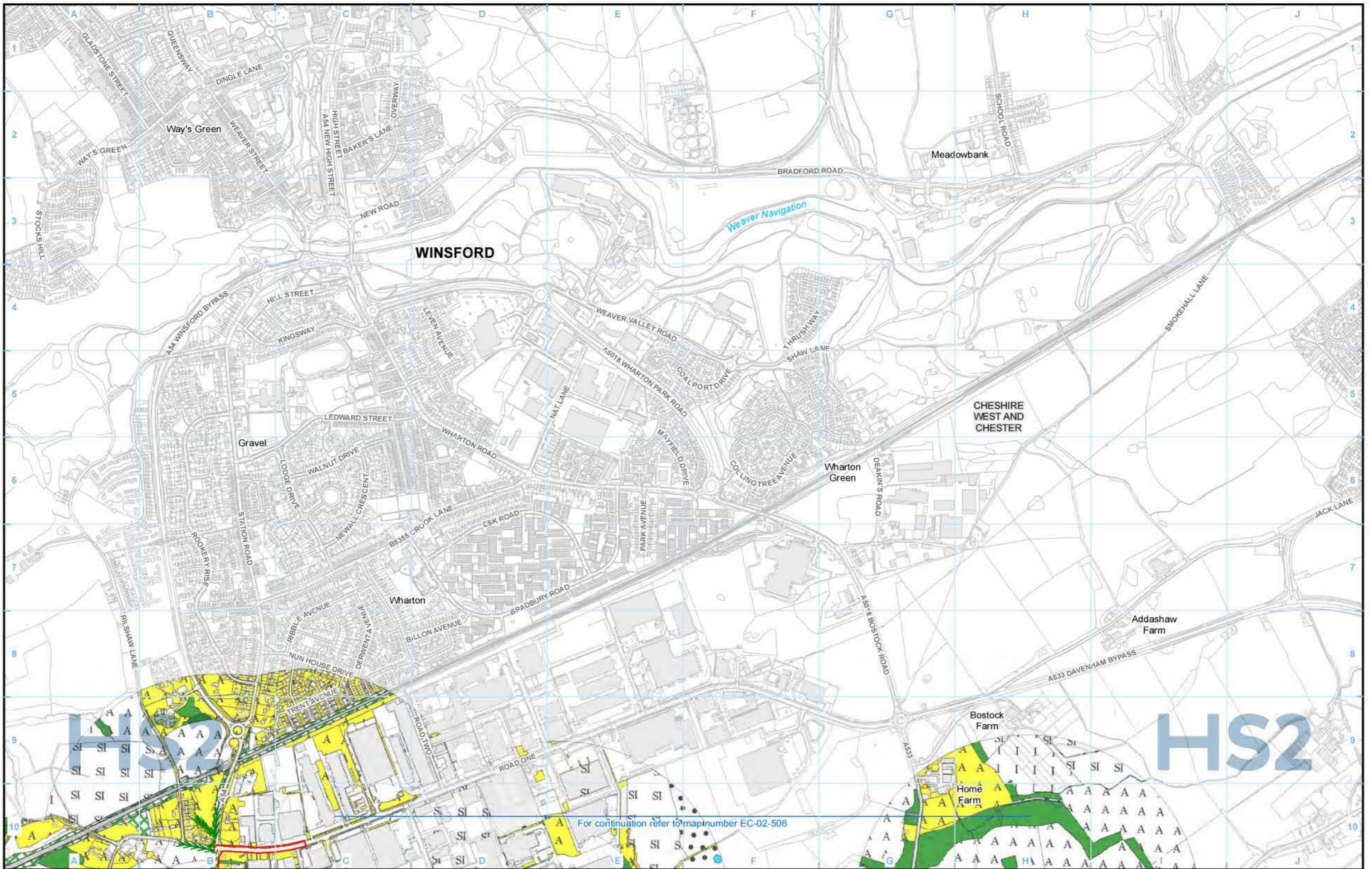
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Date: 21/04/22

Scale at A3: 1:10,000





For continuation refer to map number EC-02-506

**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

For full legend please refer to EC-02 Legend page

- Area contains new survey data

Map Number: EC-02-506-L1

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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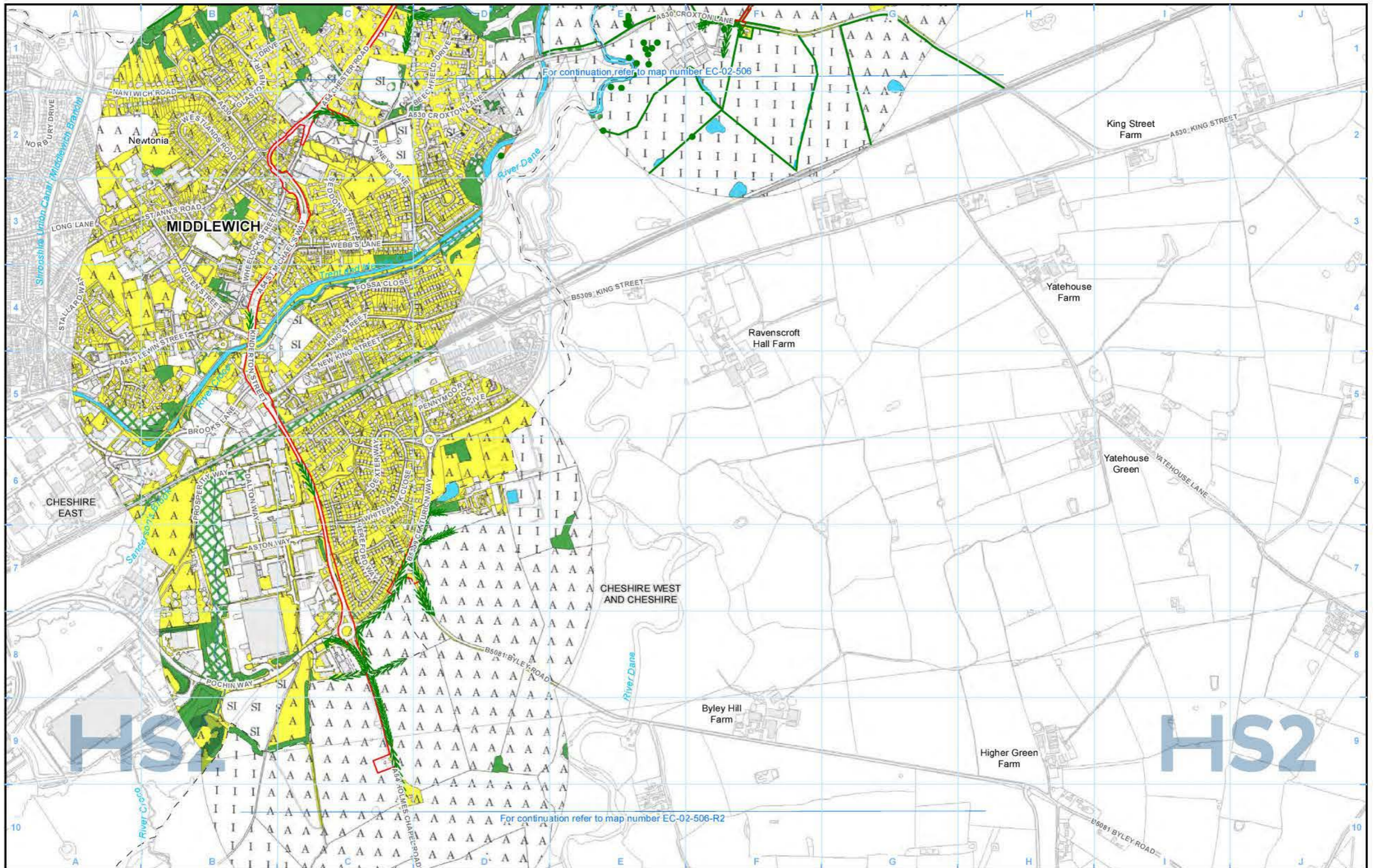
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**Legend**

- 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
- Area contains new survey data

For full legend please refer to EC-02 Legend page

Map Number: EC-02-506-R1

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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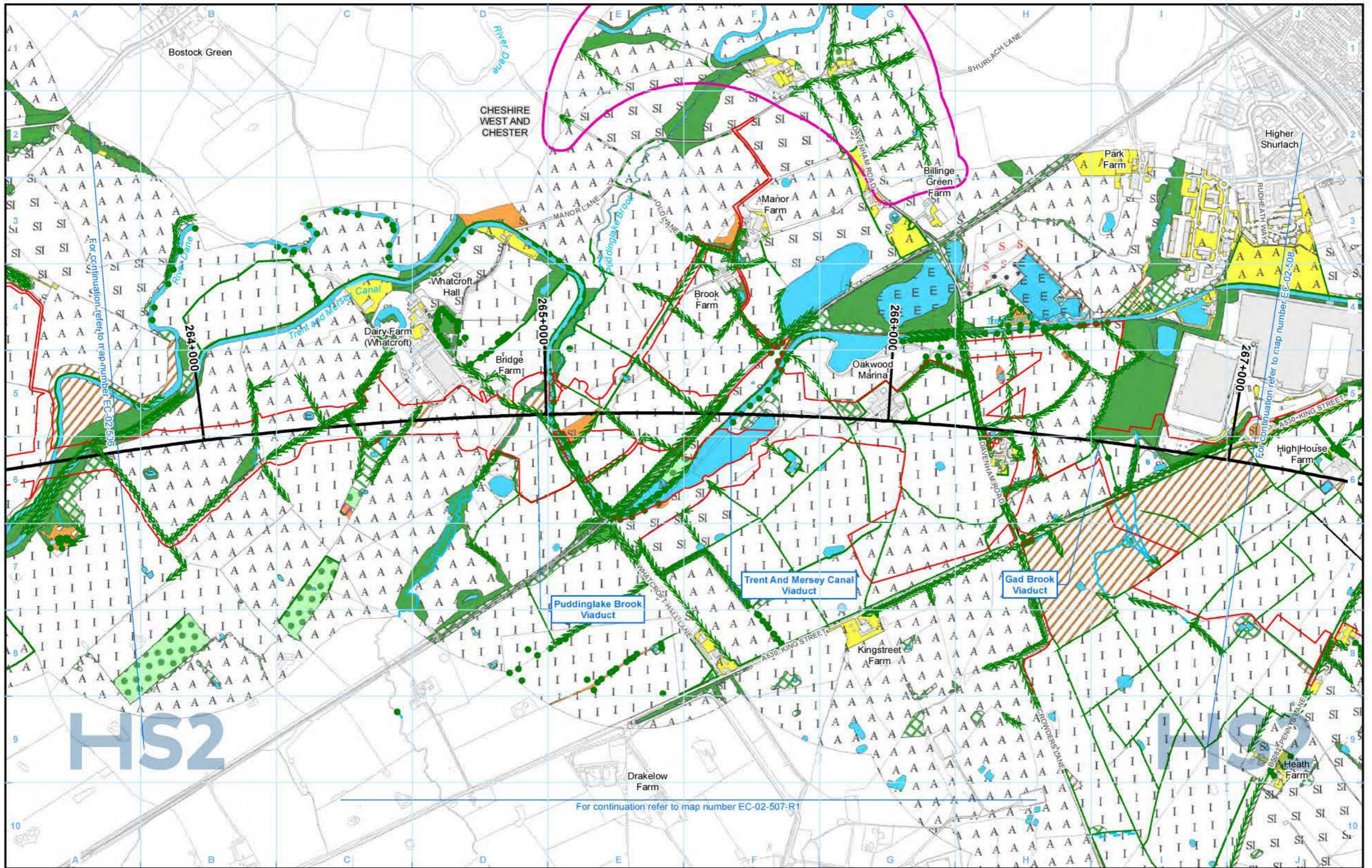
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**Legend**

- 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

For full legend please refer to EC-02 Legend page

Area contains new survey data

Map Number: EC-02-507

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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Date: 21/04/22

Scale at A3: 1:10,000

100 200 300 400  
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
- Area contains new survey data

For full legend please refer to EC-02 Legend page

Map Number: EC-02-507-R1

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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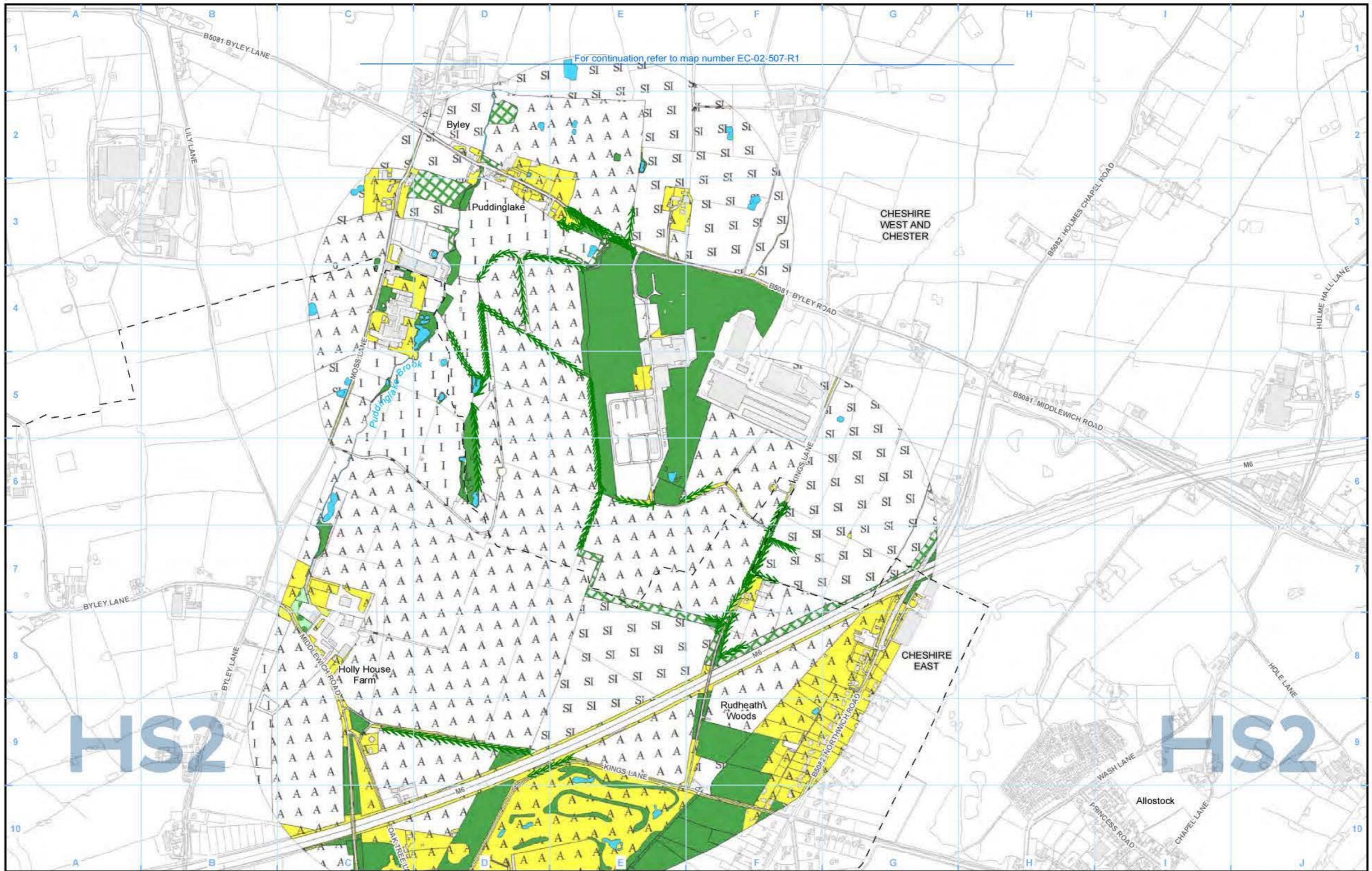
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**Legend**

- 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

For full legend please refer to EC-02 Legend page

- Area contains new survey data

Map Number: EC-02-507-R2

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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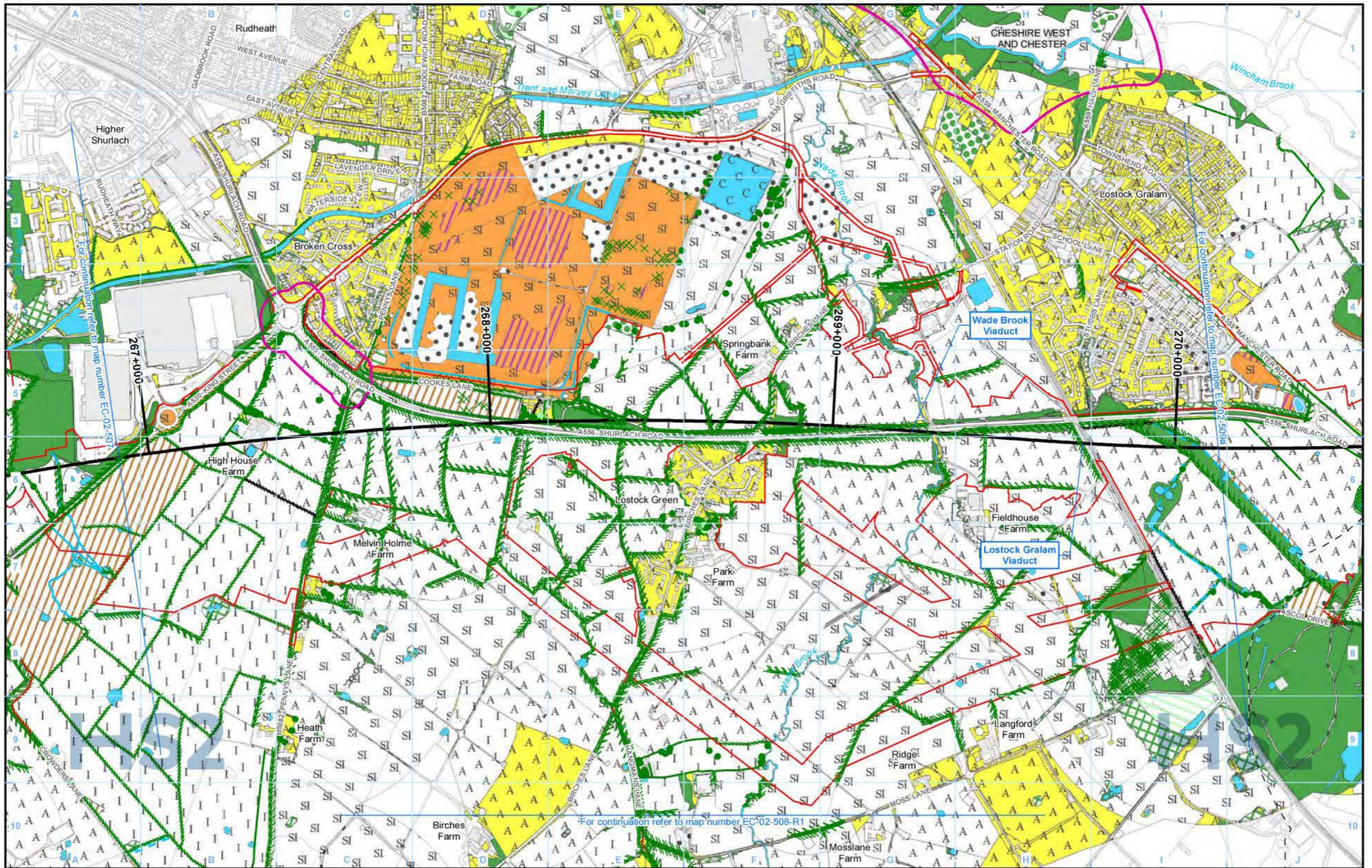
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**Legend**

- 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
- Area contains new survey data

For full legend please refer to EC-02 Legend page

Map Number: EC-02-508

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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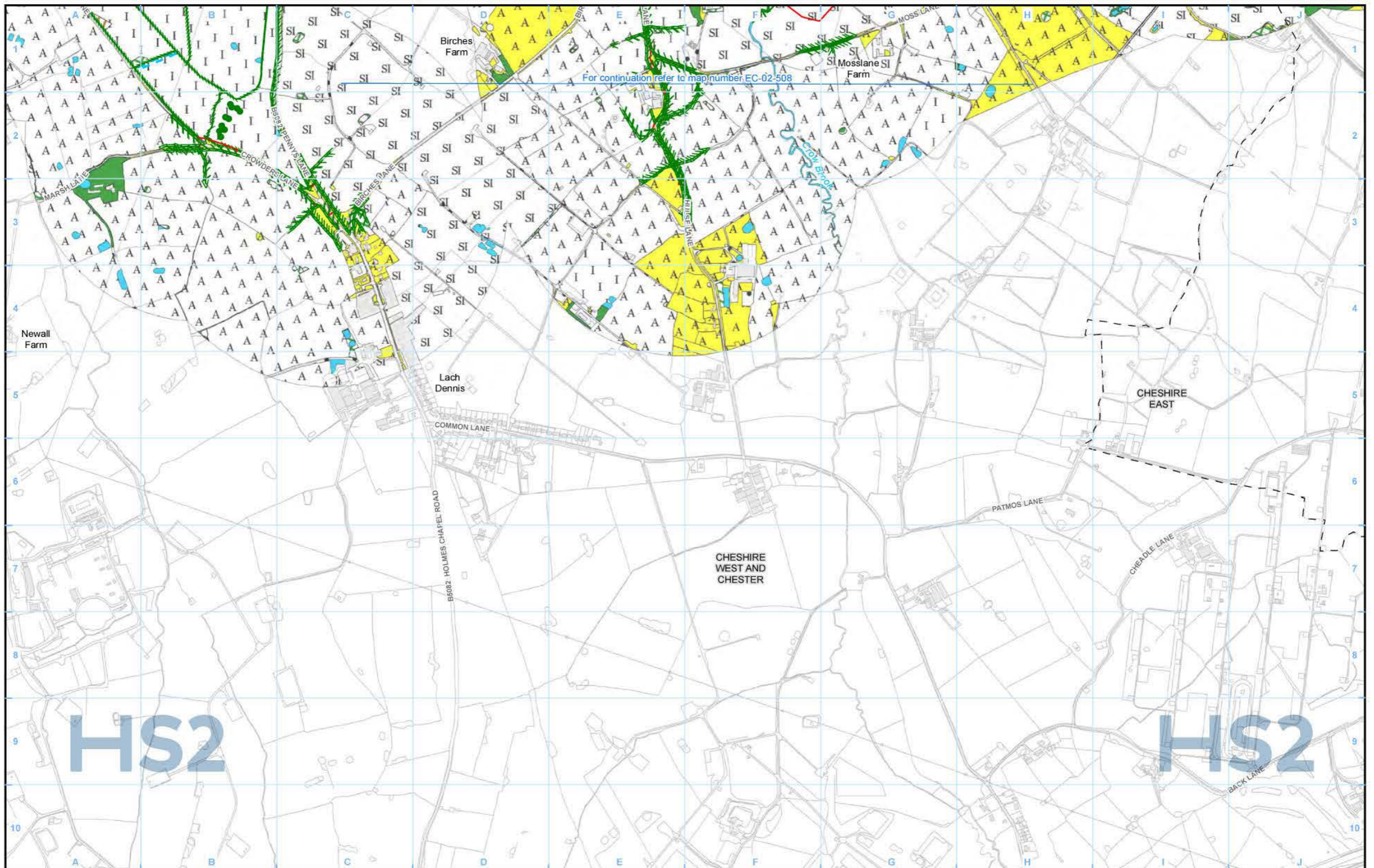
Doc Number: 2PT24-MWJ-EV-MAP-M000-000778-P01

Date: 21/04/22

Scale at A3: 1:10,000

100 200 300 400 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

For full legend please refer to EC-02 Legend page

- Area contains new survey data

Map Number: EC-02-508-R1

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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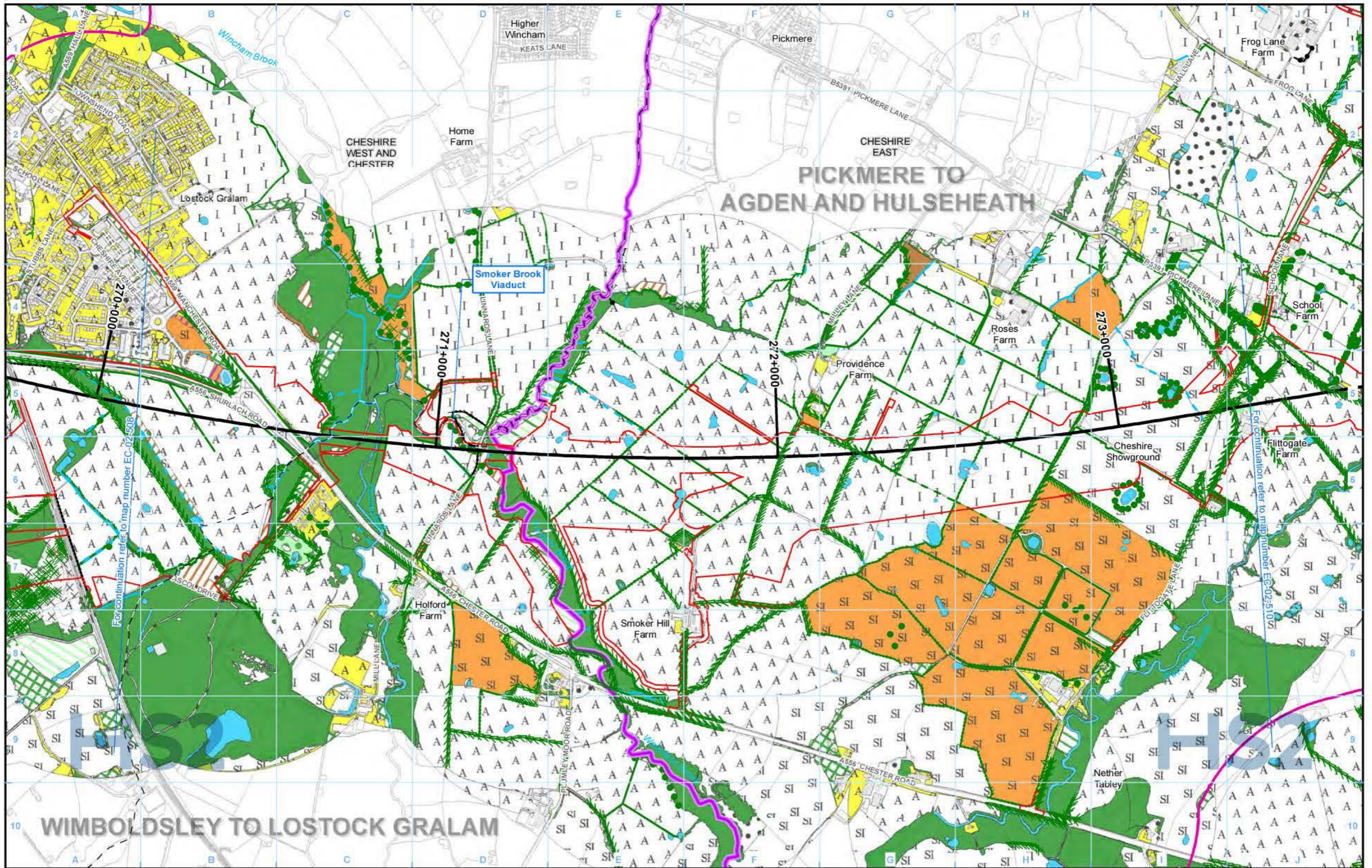
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Date: 21/04/22

Scale at A3: 1:10,000





**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
- Area contains new survey data

For full legend please refer to EC-02 Legend page

Map Number: EC-02-509a

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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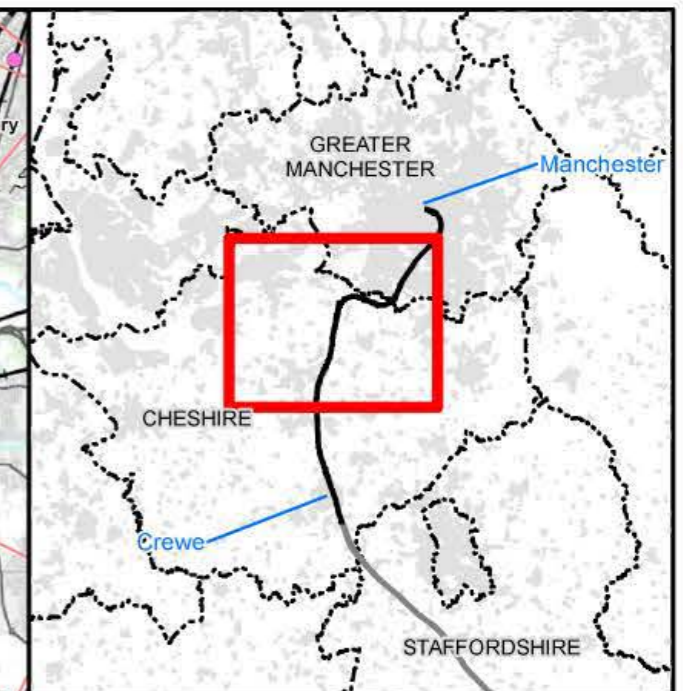
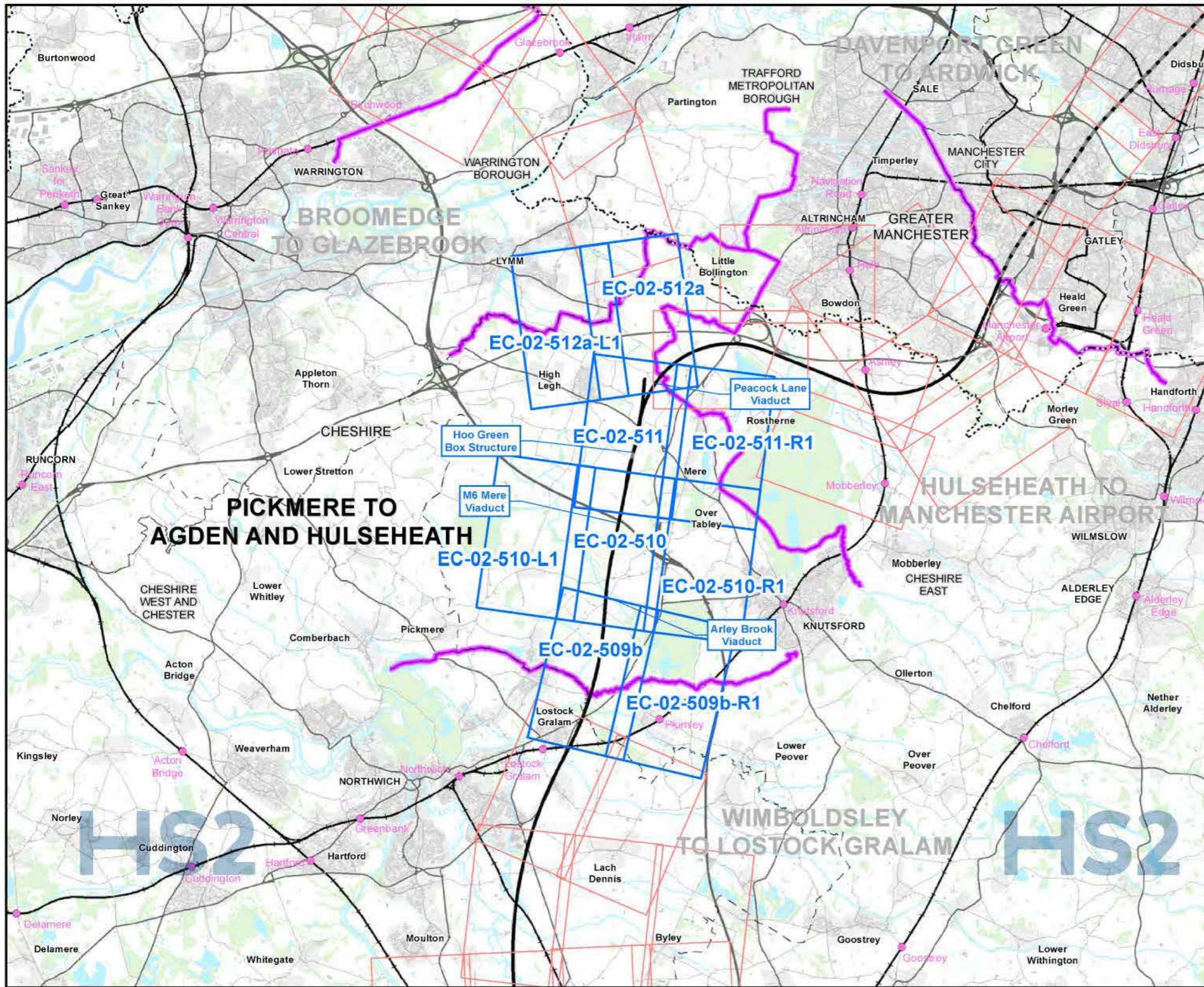
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Doc Number: 2PT24-MWJ-EV-MAP-M000-000779-P01

Date: 21/04/22

Scale at A3: 1:10,000





**Map Series Information:**

This map series shows Phase 1 habitat survey information for land required and in the vicinity of the Proposed Scheme at a scale of 1:10,000. Where it has not been possible to gain access for field survey, the information is based on available desk studies and interpretation of aerial photography.

- 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 with amendment
  - Map sheet included in this community area with no amendment
  - Map sheets not included in this community area

Map Number: EC-02-INDEX-MA03

Map Name: Index Map of:  
Phase 1 Habitat (1:10,000)  
SES1 and AP1 ES

Community Area MA03:  
Pickmere to Agden and Hulseheath

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

























































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Date: 21/04/22























**Phase 1 Habitat survey legend**

**Habitat Areas**

	Broadleaved woodland - semi-natural		Lichen/bryophyte heath
	Broadleaved woodland - plantation		Montane heath/dwarf herb
	Coniferous woodland - semi-natural		Dry heath/acid grassland
	Coniferous woodland - plantation		Wet heath/acid grassland
	Mixed woodland - semi-natural		Blanket sphagnum bog
	Mixed woodland - plantation		Raised sphagnum bog
	Scrub - dense/continuous		Wet modified bog
	Scrub - scattered		Dry modified bog
	Broadleaved parkland/scattered trees		Flush and spring - acid/neutral flush
	Coniferous parkland/scattered trees		Flush and spring - basic flush
	Mixed parkland/scattered trees		Fen
	Broadleaved woodland - recently felled		Fen - valley mire
	Coniferous woodland - recently felled		Fen - basin mire
	Mixed woodland - recently felled		Fen - flood plain mire
	Acid grassland - unimproved		Peat - bare
	Acid grassland - semi-improved		Swamp
	Neutral grassland - unimproved		Marginal and inundation - inundation vegetation
	Neutral grassland - semi-improved		Standing water
	Calcareous grassland - unimproved		Standing water - eutrophic
	Calcareous grassland - semi-improved		Standing water - mesotrophic
	proved Improved grassland		Standing water - oligotrophic
	Marsh/marshy grassland		Standing water - dystrophic
	Poor semi-improved grassland		Standing water - marl
	Bracken - continuous		Standing water - brackish
	Bracken - scattered		Running water
	Upland species-rich ledges		Running water - eutrophic
	Other tall herb and fern - ruderal		Running water - mesotrophic
	Other tall herb and fern - non ruderal		Running water - oligotrophic
	Dry dwarf shrub heath - acid		Running water - dystrophic
	Dry dwarf shrub heath - basic		Running water - marl
	Wet dwarf shrub heath		Running water - brackish

	Inland cliff - acid/neutral
	Inland cliff - basic
	Scree - acid/neutral
	Scree - basic
	Limestone pavement
	Other exposure - acid/neutral
	Other exposure - basic
	Cave
	Quarry
	Spoil
	Mine
	Refuse-tip
	Cultivated/disturbed land - arable
	Cultivated/disturbed land - amenity grassland
	Cultivated/disturbed land - ephemeral/short perennial
	Introduced shrub
	Intact hedge - native species-rich
	Intact hedge - species-poor
	Defunct hedge - native species-rich
	Defunct hedge - species-poor
	Hedge with trees - native species-rich
	Hedge with trees - species-poor
	Fence
	Wall
	Dry ditch
	Boundary removed
	Earth bank
	Caravan site
	Buildings
	Bare ground
	Other habitat

<b>Linear Habitats</b>
 Scrub - scattered
 Broadleaved parkland/scattered trees
 Coniferous parkland/scattered trees
 Mixed parkland/scattered trees
 Upland species-rich ledges
 Marginal and inundation - marginal vegetation
 Running water
<b>E</b> Running water - eutrophic
<b>M</b> Running water - mesotrophic
<b>O</b> Running water - oligotrophic
<b>D</b> Running water - dystrophic
<b>C</b> Running water - marl
<b>B</b> Running water - brackish
 Inland cliff
 Scree
 Intact hedge - native species-rich
 Intact hedge - species-poor
 Defunct hedge - native species-rich
 Defunct hedge - species-poor
 Hedge with trees - native species-rich
 Hedge with trees - species-poor
 Fence
 Wall
 Dry ditch
 Boundary removed
 Earth bank

<b>Point Habitats</b>
 Scrub - scattered
 Broadleaved parkland/scattered trees
 Coniferous parkland/scattered trees

Map Number: EC-02 - Legend

Map Name: EC-02 - Phase 1 Habitat Survey Legend



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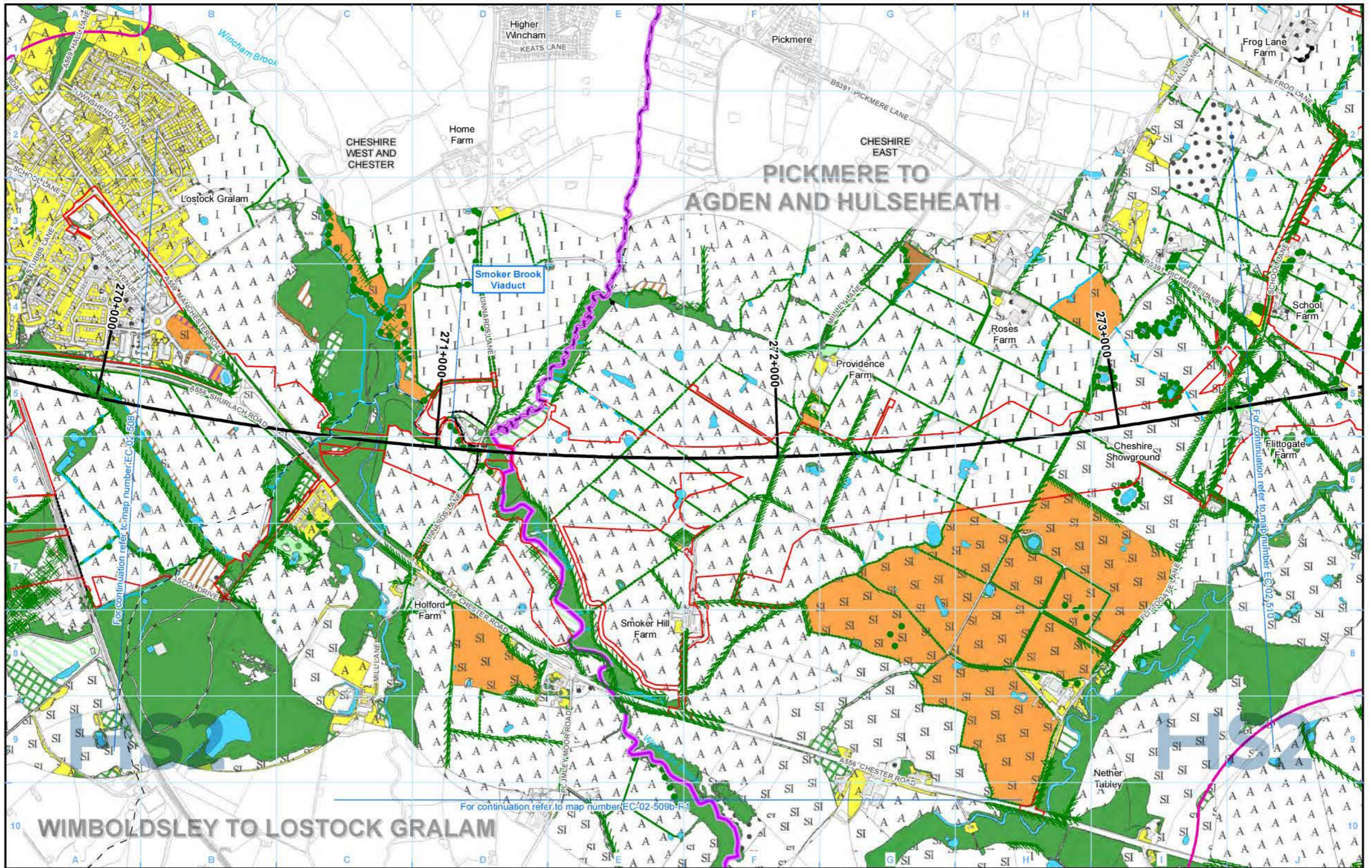
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**Legend**

- 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

Area contains new survey data

For full legend please refer to EC-02 Legend page

Map Number: EC-02-509b

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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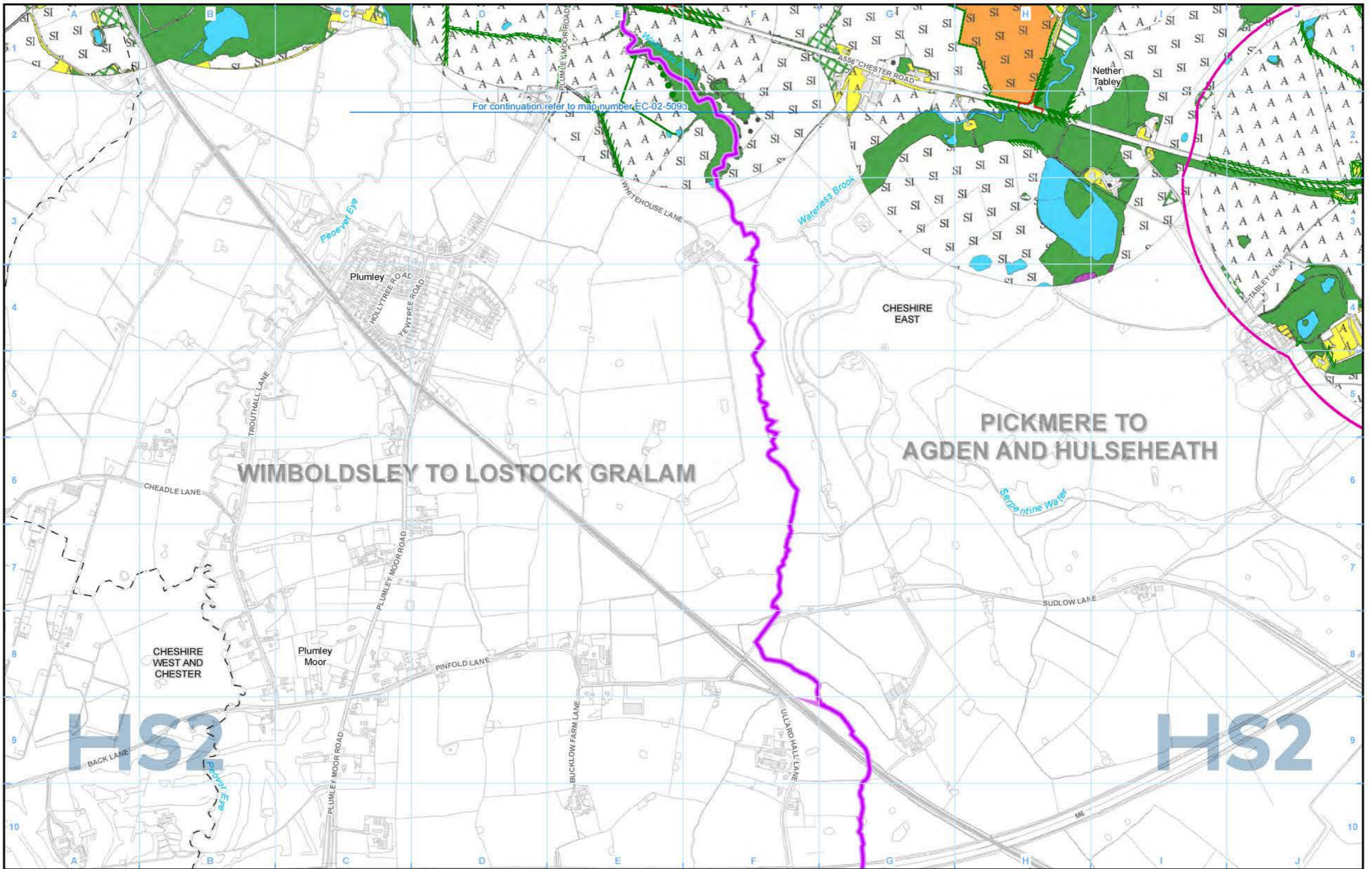
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Date: 21/04/22





For continuation refer to map number EC-02-509b

**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

For full legend please refer to EC-02 Legend page

- Area contains new survey data

Map Number: EC-02-509b-R1

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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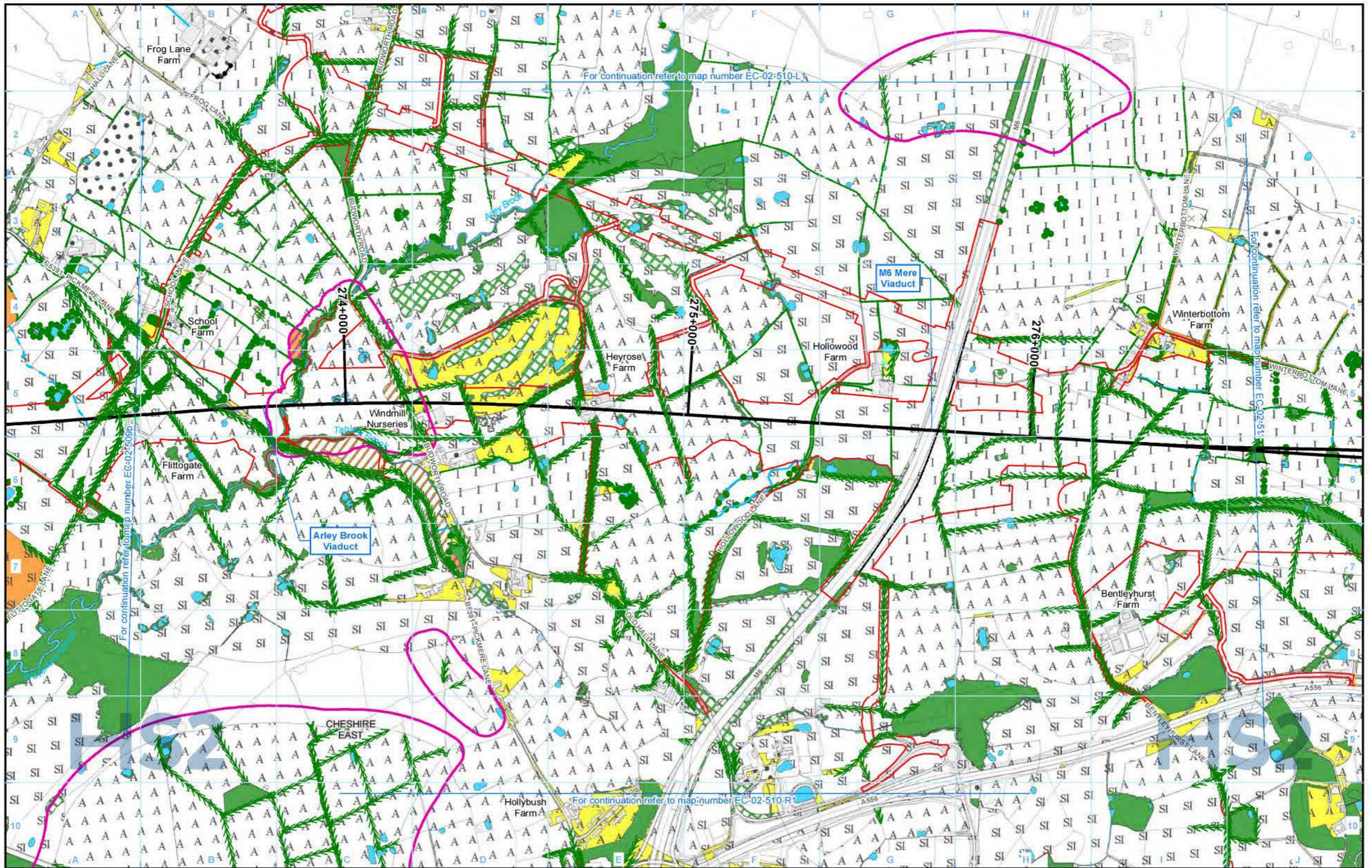
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Date: 21/04/22

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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
- Area contains new survey data

For full legend please refer to EC-02 Legend page

Map Number: EC-02-510

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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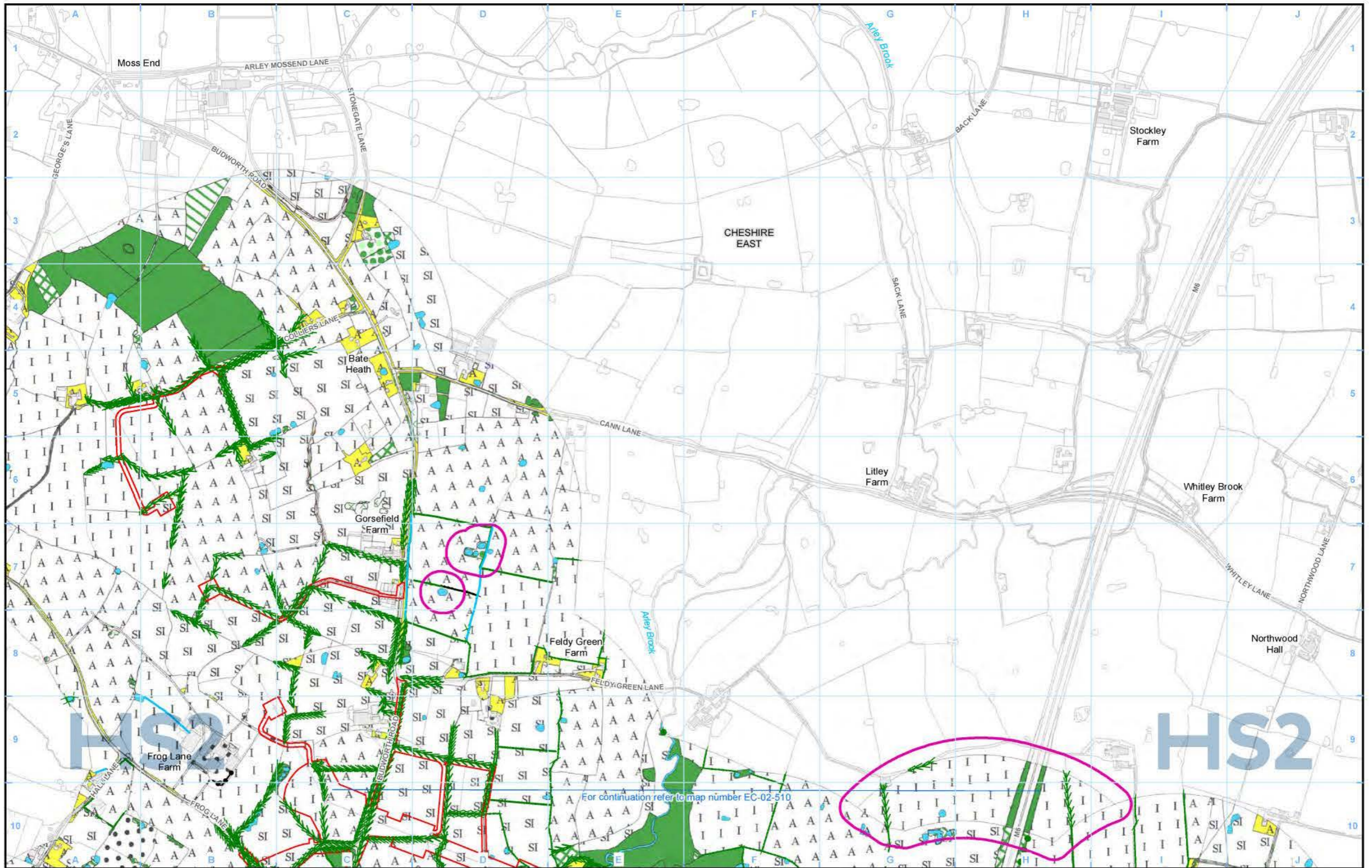
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Date: 21/04/22

Scale at A3: 1:10,000

100 200 300 400 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

For full legend please refer to EC-02 Legend page

- Area contains new survey data

Map Number: EC-02-510-L1

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseath

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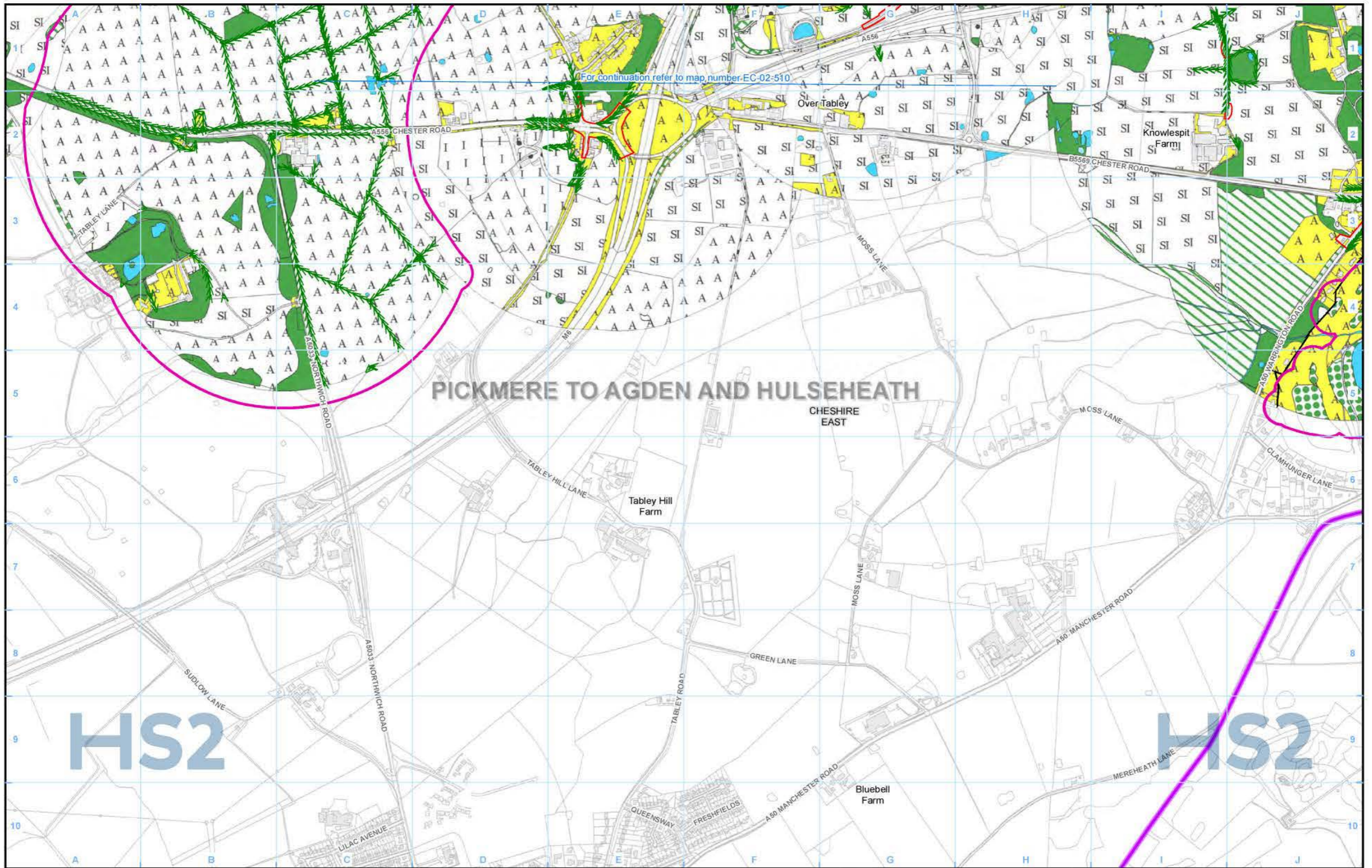
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Date: 21/04/22

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For continuation refer to map number EC-02-510

# PICKMERE TO AGDEN AND HULSEHEATH

CHESHIRE EAST

# HS2

# HS2

**Legend**

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

For full legend please refer to EC-02 Legend page

Map Number: EC-02-510-R1

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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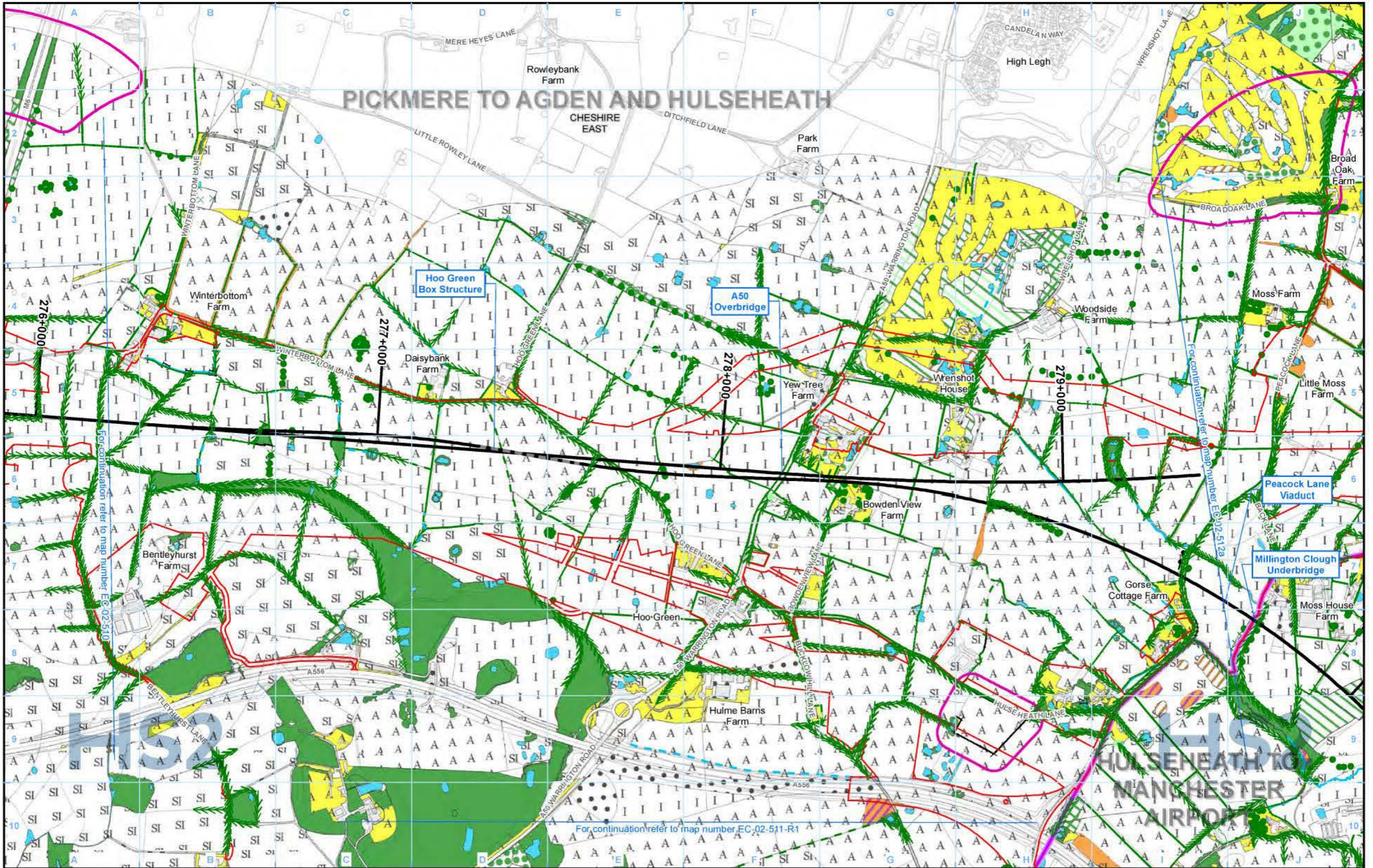
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Date: 21/04/22

Scale at A3: 1:10,000



# PICKMERE TO AGDEN AND HULSEHEATH



**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
- Area contains new survey data

For full legend please refer to EC-02 Legend page

Map Number: EC-02-511

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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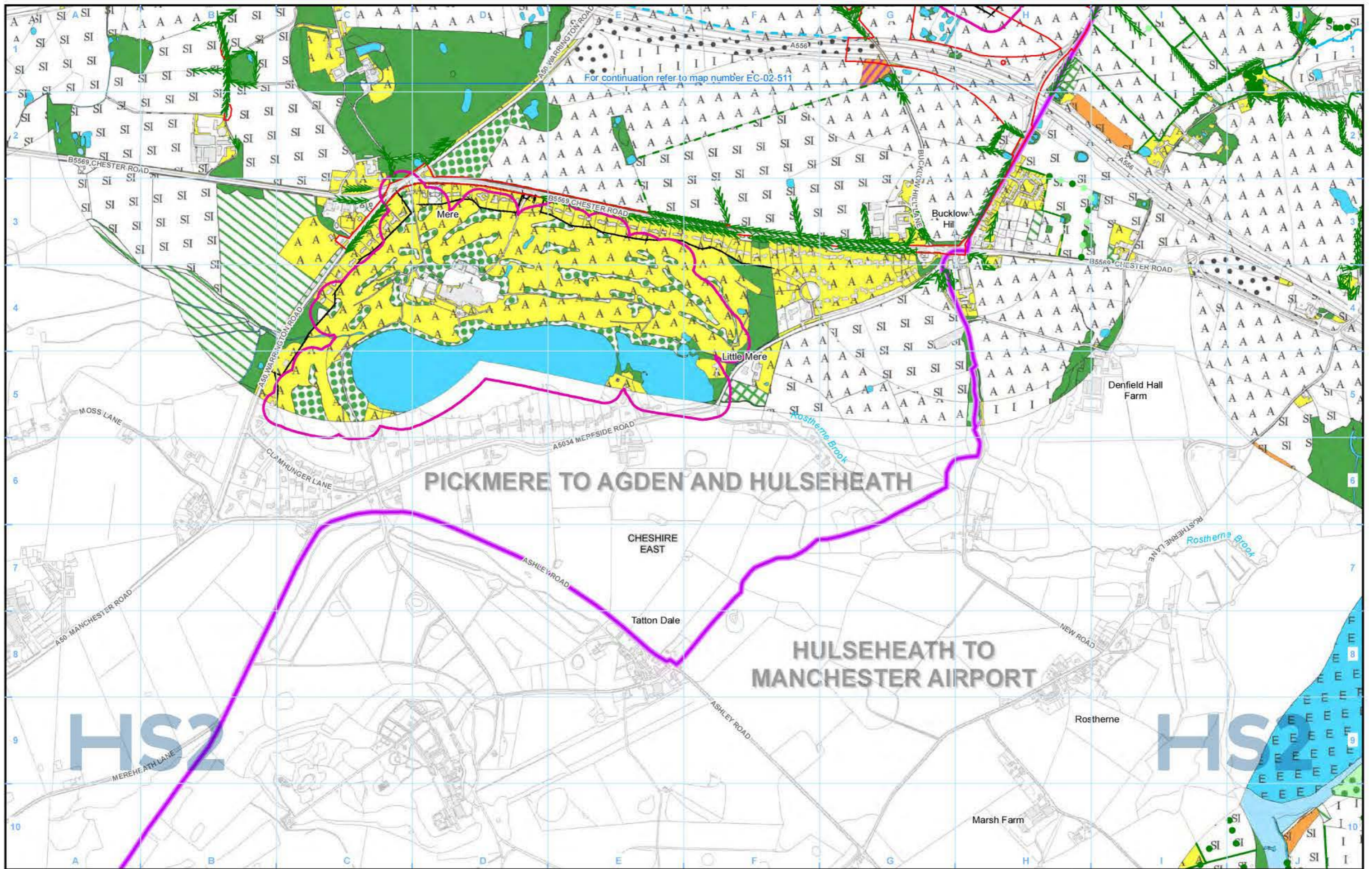
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Date: 21/04/22

Scale at A3: 1:10,000

0 100 200 300 400 500  
Metres





For continuation refer to map number EC-02-511

PICKMERE TO AGDEN AND HULSEHEATH

HULSEHEATH TO MANCHESTER AIRPORT

**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
- Area contains new survey data

For full legend please refer to EC-02 Legend page

Map Number: EC-02-511-R1

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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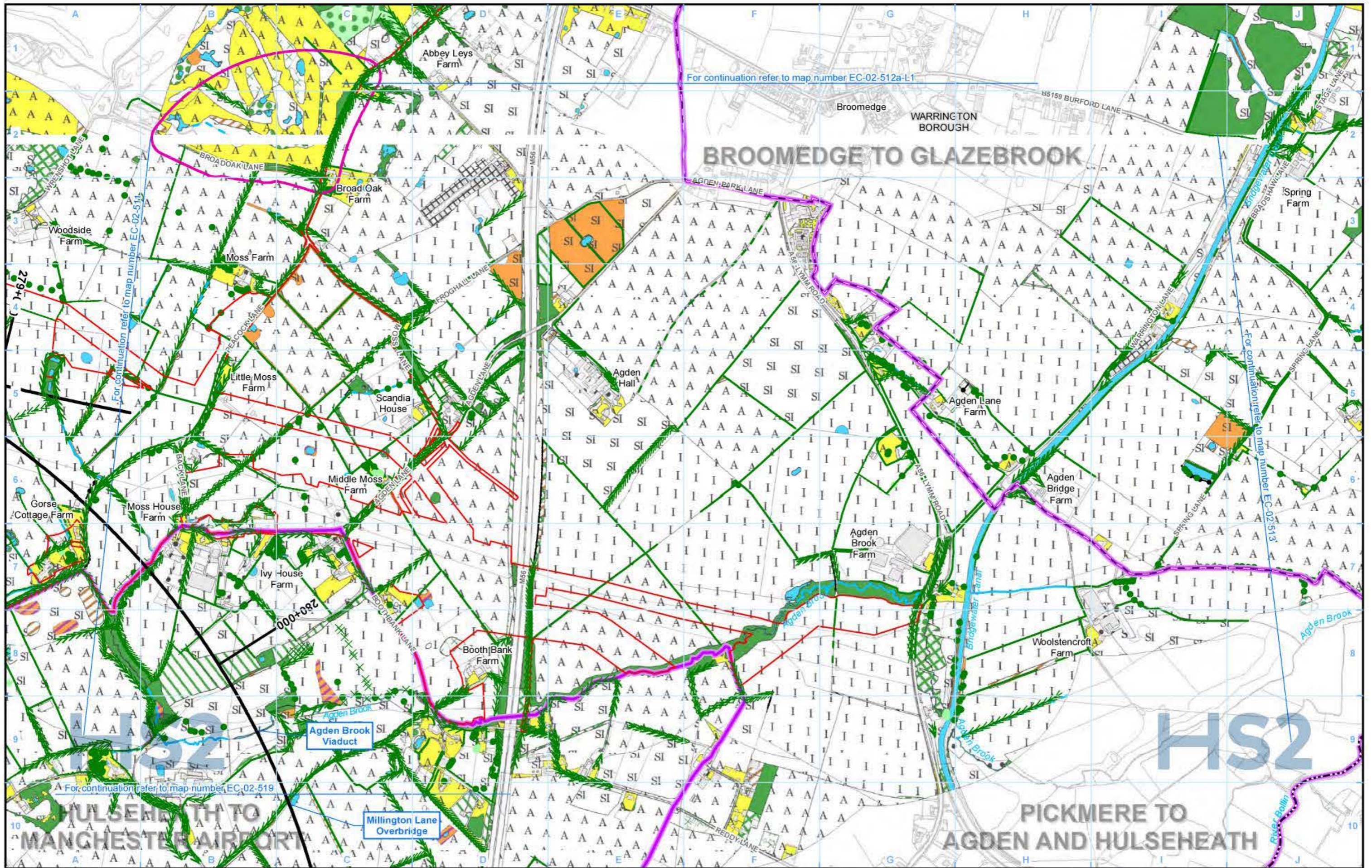
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Date: 21/04/22

Scale at A3: 1:10,000





- 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
  - Area contains new survey data
- For full legend please refer to EC-02 Legend page

Map Number: EC-02-512a

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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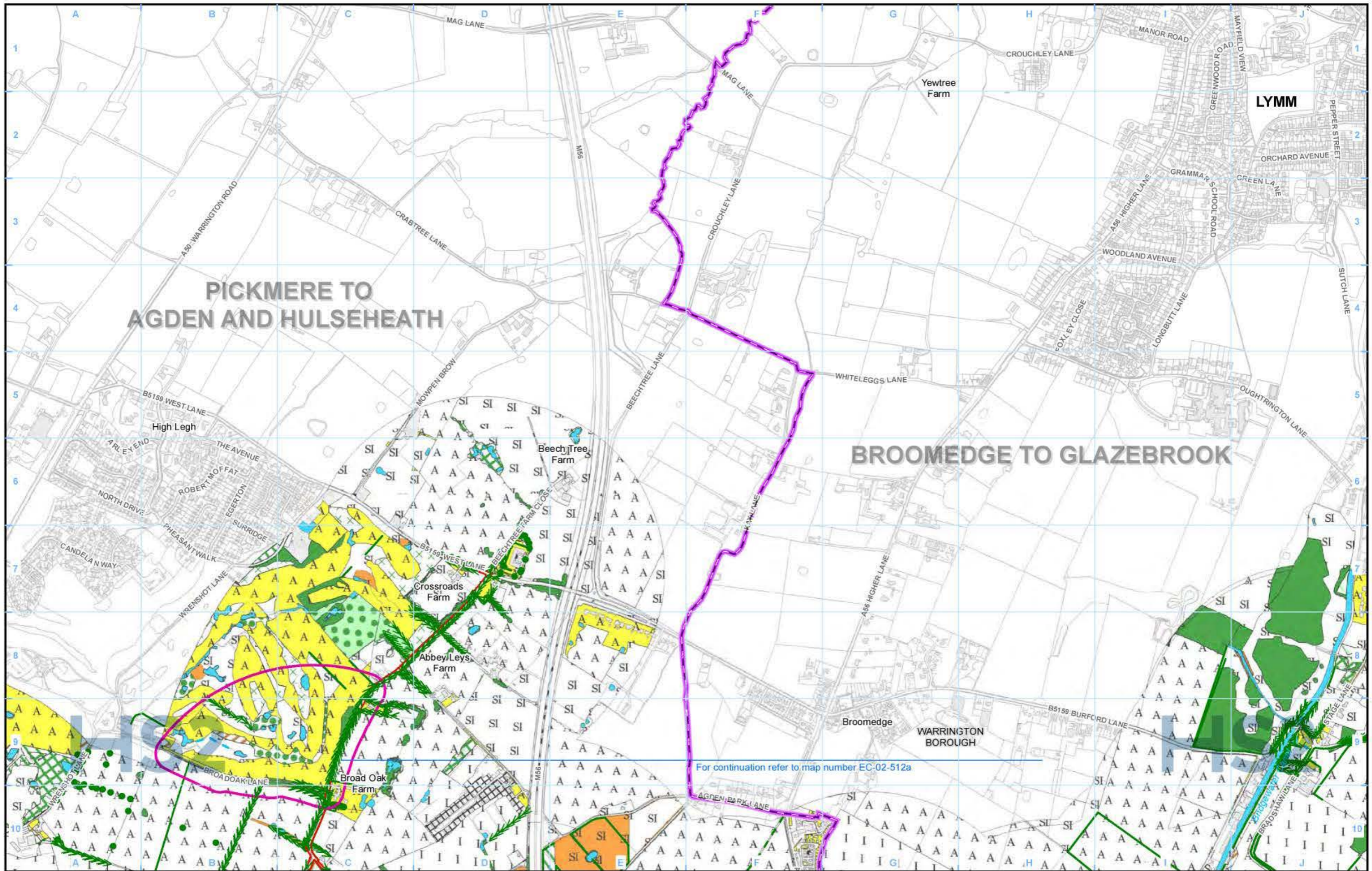
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Scale at A3: 1:10,000

Date: 21/04/22





**Legend**

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

For full legend please refer to EC-02 Legend page

Map Number: EC-02-512a-L1

Map Name: Phase 1 Habitat (1:10,000) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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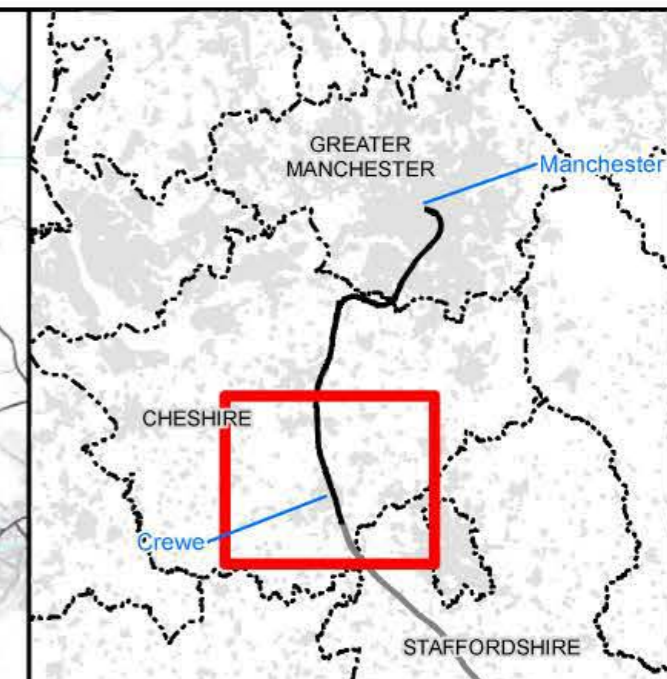
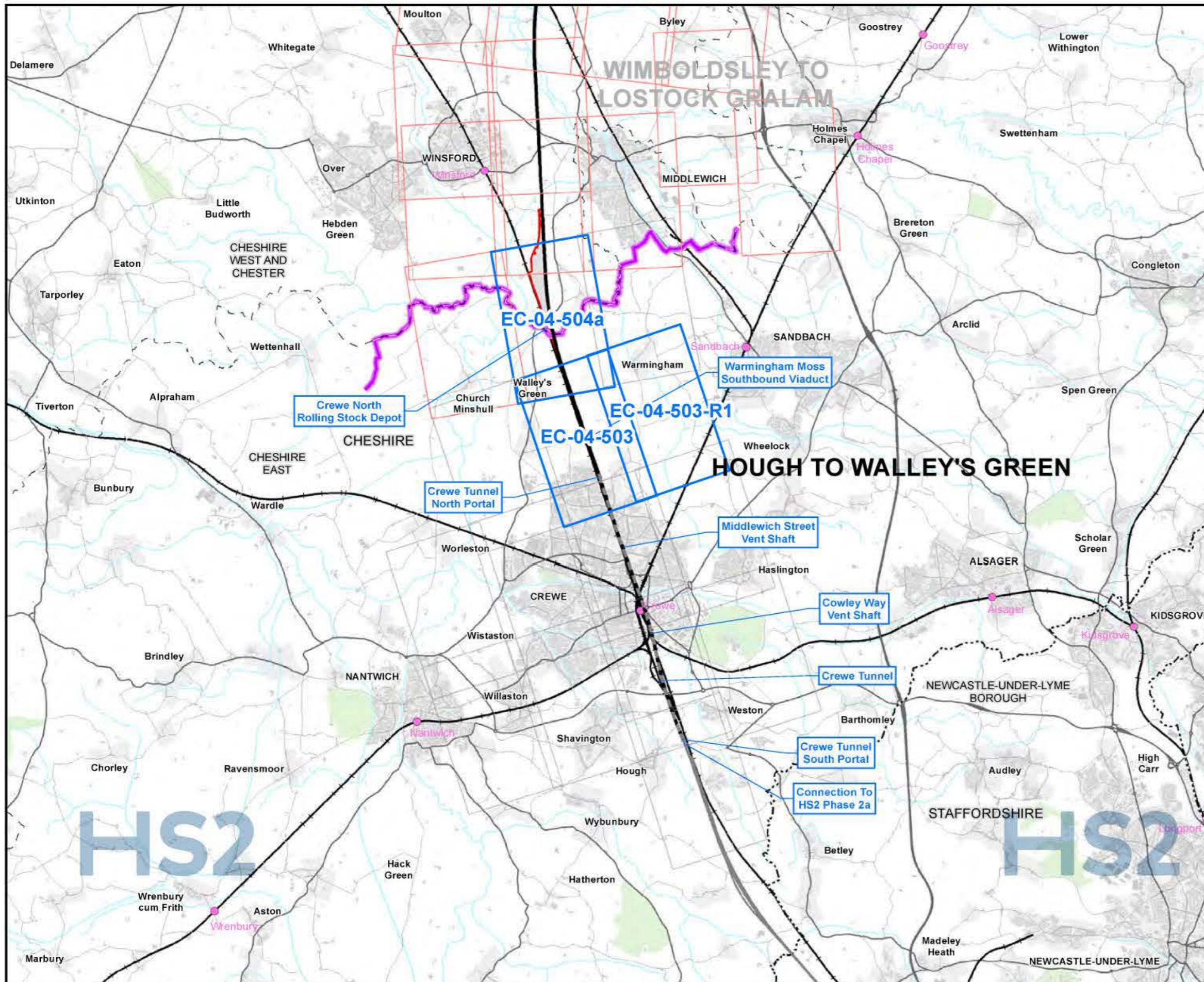


## **High Speed Rail (Crewe – Manchester)**

**Background information and data accompanying  
Supplementary Environmental Statement 1 and  
Additional Provision 1 Environmental Statement**

EC-04 – Amphibians





**Map Series Information:**

This map series shows the results of amphibian surveys conducted to inform the Environmental Assessment. It principally details the results of great crested newt surveys conducted. In addition it shows the location of those 'exceptional' populations of common amphibians recorded.

- 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 area with no amendment
  - Map sheets not included in this community area

Map Number: EC-04-INDEX-MA01

Map Name: Index Map of: Amphibians SES1 and AP1 ES Community Area MA01: Hough to Walley's Green

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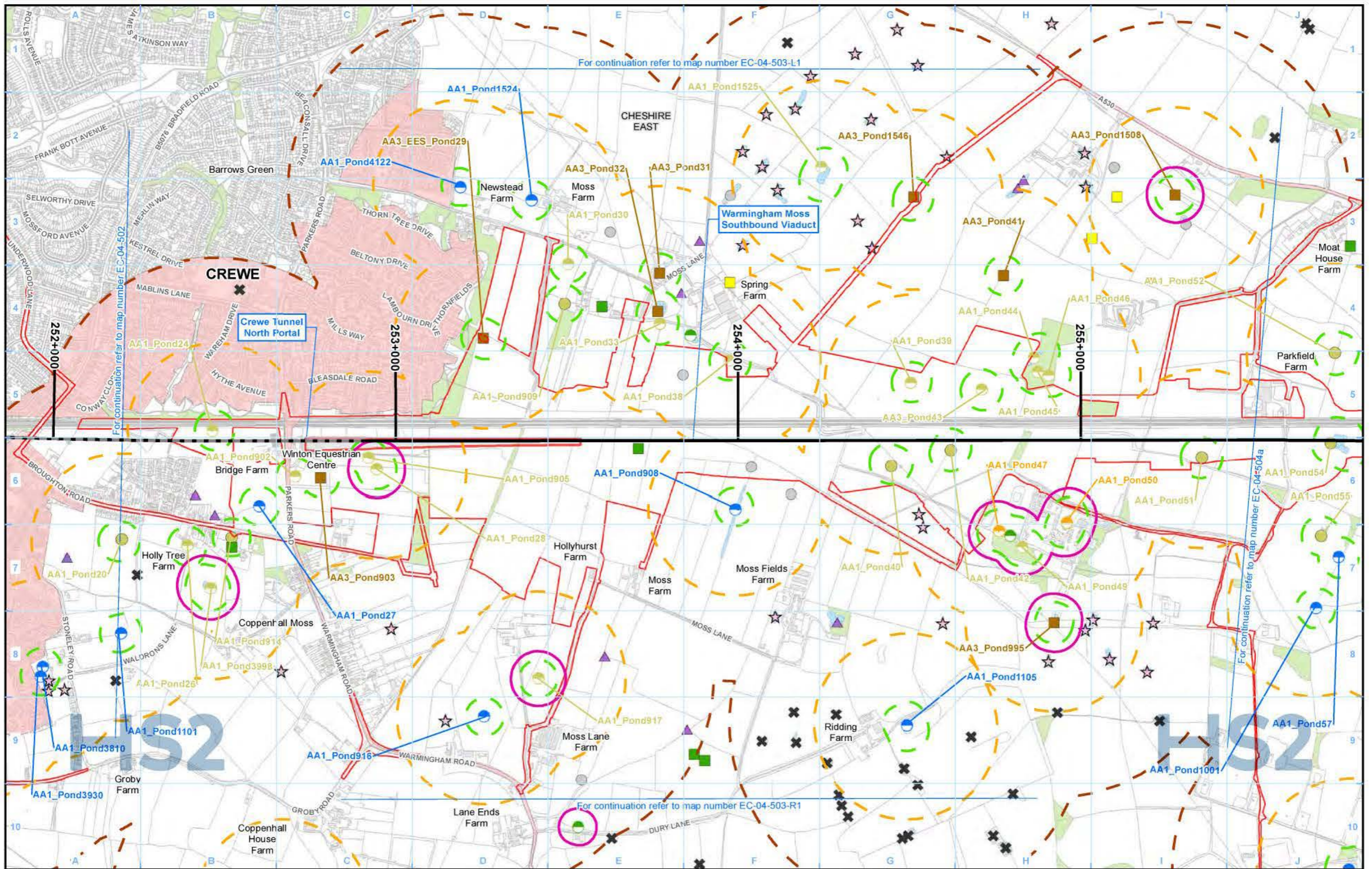
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Doc Number: 2PT24-MWJ-EV-MAP-M000-000982-P01 Date: 21/04/22

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





**Legend**

<ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> </ul>	<ul style="list-style-type: none"> <li> District/Borough boundary</li> <li> Watercourse</li> <li> Water body</li> <li> Woodland (not verified by survey)</li> <li> Area contains new survey data</li> <li> eDNA survey complete - result inconclusive</li> </ul>	<ul style="list-style-type: none"> <li> eDNA survey complete - GCN present</li> <li> eDNA survey complete - GCN assumed absent</li> <li> GCN present (6 visits) - small population (1 - 10 adults)</li> <li> GCN present (less than 6 visits) - medium population (11 - 99 adults)</li> <li> GCN present (less than 6 visits) - small population (1 - 10 adults)</li> <li> GCN confirmed present - no size class determined</li> <li> Survey complete, GCN assumed absent</li> <li> Survey incomplete, no GCN found</li> </ul>	<ul style="list-style-type: none"> <li> Scoped in - Habitat Suitability Index (HSI)/walkover only</li> <li> Scoped in - no access permission</li> <li> Scoped out - no survey required</li> <li> 50m radius from all water bodies where presence of GCN is confirmed</li> <li> 250m radius from all water bodies where presence of GCN is confirmed</li> <li> 500m radius from all water bodies where presence of GCN is confirmed</li> <li> Areas isolated by significant barriers to amphibian movement</li> </ul>
--	--	--	--

Note: GCN = Great Crested Newts

Map Number: EC-04-503

Map Name: Amphibians SES1 and AP1 ES

Community Area MA01: Hough to Walley's Green

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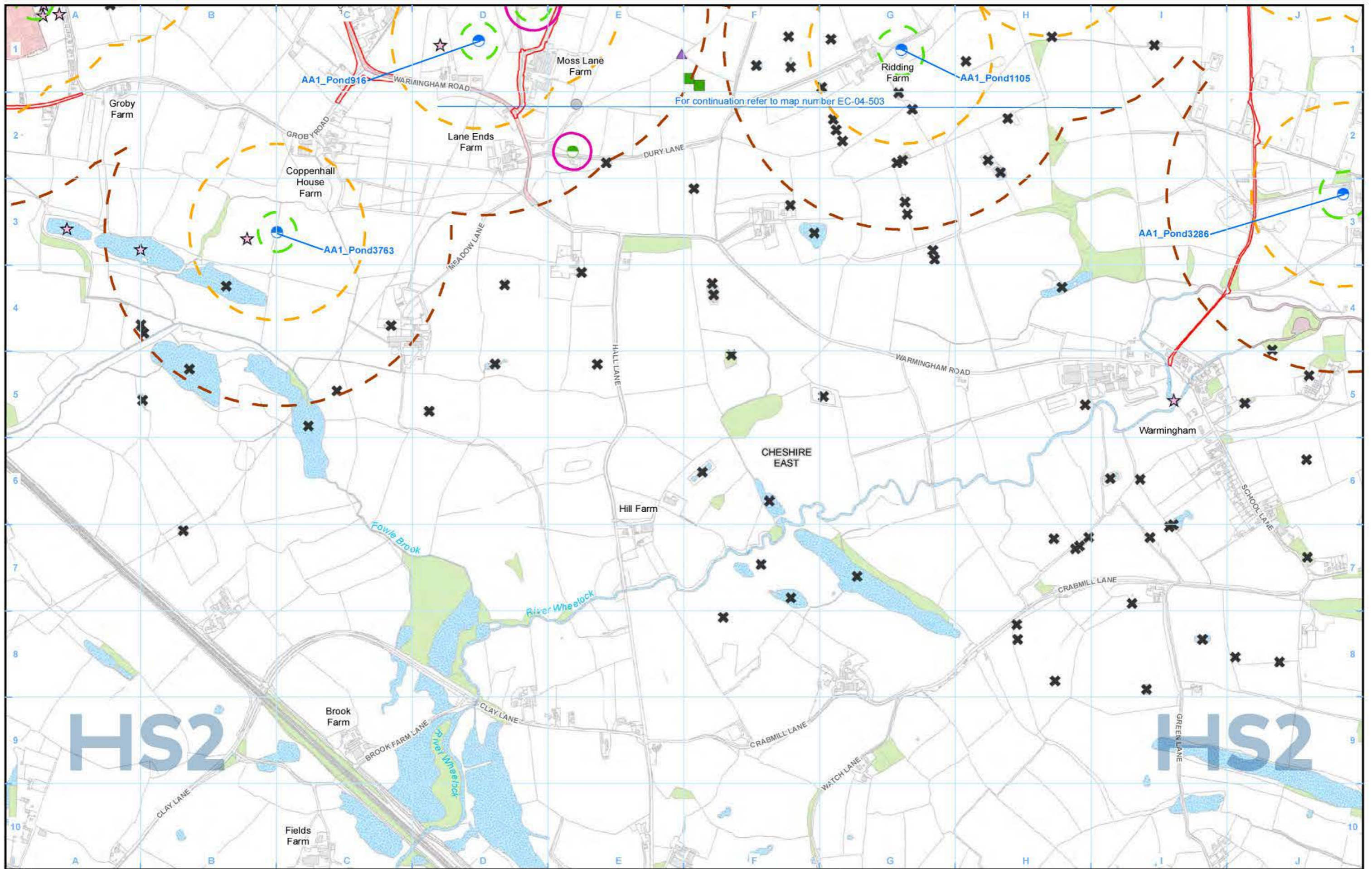
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Doc Number: 2PT24-MWJ-EV-MAP-M000-000949-P01

Scale at A3: 1:10,000

Date: 21/04/22





For continuation refer to map number EC-04-503

**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
- Water body
- Woodland (not verified by survey)
- Area contains new survey data
- eDNA survey complete - GCN assumed absent

- GCN present (less than 6 visits) - small population (1 - 10 adults)
- GCN confirmed present - no size class determined
- Survey complete, GCN assumed absent
- Survey incomplete, no GCN found
- Scoped in - Habitat Suitability Index (HSI)/walkover only
- Scoped in - no access permission
- Scoped out - no survey required

- 50m radius from all water bodies where presence of GCN is confirmed
- 250m radius from all water bodies where presence of GCN is confirmed
- 500m radius from all water bodies where presence of GCN is confirmed
- Areas isolated by significant barriers to amphibian movement

Map Number: EC-04-503-R1

Map Name: Amphibians SES1 and AP1 ES

Community Area MA01: Hough to Walley's Green

**HS2**

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Doc Number: 2PT24-MWJ-EV-MAP-M000-002965-P01

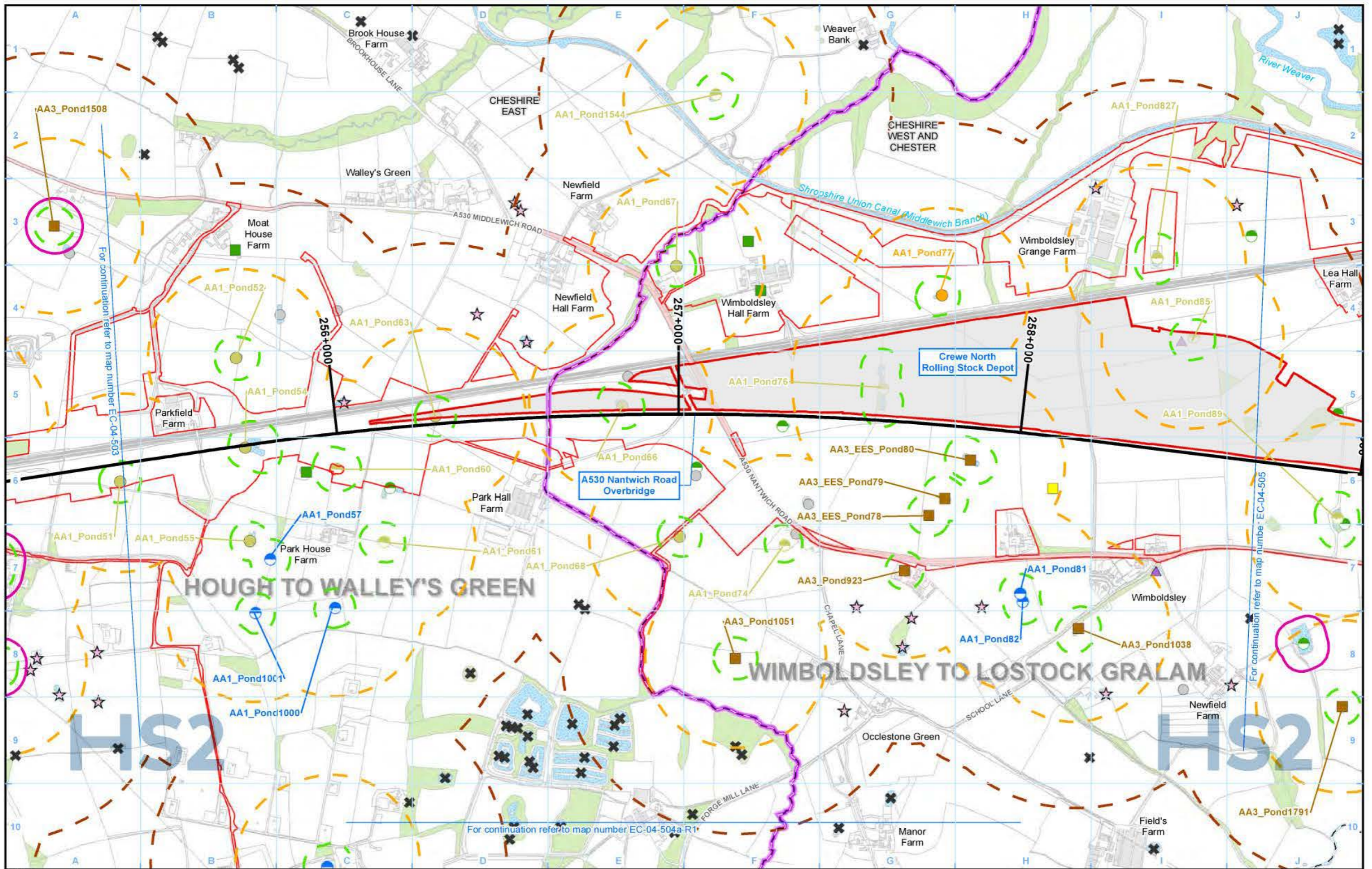
Date: 21/04/22

Scale at A3: 1:10,000

100 200 300 400  
metres

Note: GCN = Great Crested Newts





**Legend**

<ul style="list-style-type: none"> <li>Route in tunnel</li> <li>Route on surface</li> <li>Depot, station, headhouse or portal building</li> <li>Land potentially required during construction</li> <li>Community area boundary</li> <li>County boundary</li> </ul>	<ul style="list-style-type: none"> <li>District/Borough boundary</li> <li>Watercourse</li> <li>Water body</li> <li>Woodland (not verified by survey)</li> <li>Area contains new survey data</li> <li>eDNA survey complete - result inconclusive</li> </ul>	<ul style="list-style-type: none"> <li>eDNA survey complete - GCN present</li> <li>eDNA survey complete - GCN assumed absent</li> <li>GCN present (6 visits) - medium population (11 - 99 adults)</li> <li>GCN present (6 visits) - small population (1 - 10 adults)</li> <li>GCN present (less than 6 visits) - small population (1 - 10 adults)</li> <li>GCN confirmed present - no size class determined</li> <li>Survey complete, GCN assumed absent</li> <li>Survey incomplete, no GCN found</li> </ul>	<ul style="list-style-type: none"> <li>Scoped in - Habitat Suitability Index (HSI)/walkover only</li> <li>Scoped in - no access permission</li> <li>Scoped out - no survey required</li> <li>50m radius from all water bodies where presence of GCN is confirmed</li> <li>250m radius from all water bodies where presence of GCN is confirmed</li> <li>500m radius from all water bodies where presence of GCN is confirmed</li> <li>Areas isolated by significant barriers to amphibian movement</li> </ul>
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Note: GCN = Great Crested Newts

Map Number: EC-04-504a

Map Name: Amphibians SES1 and AP1 ES

Community Area MA01: Hough to Walley's Green

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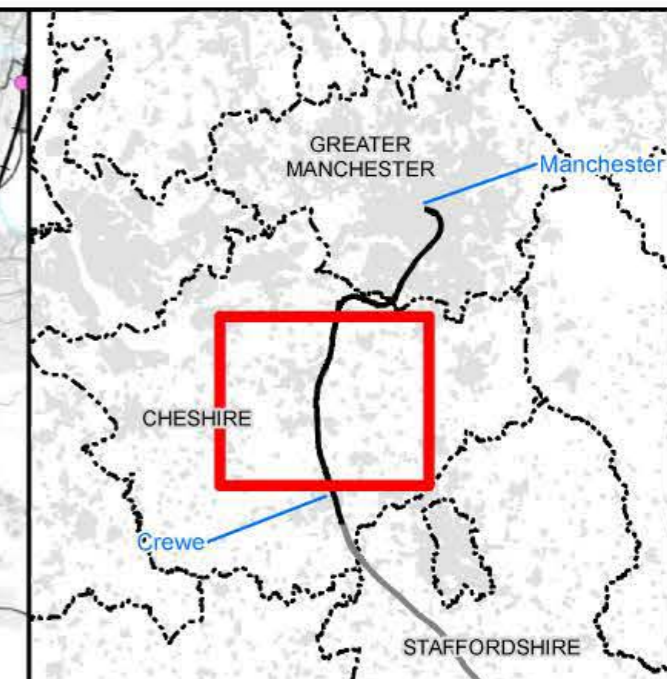
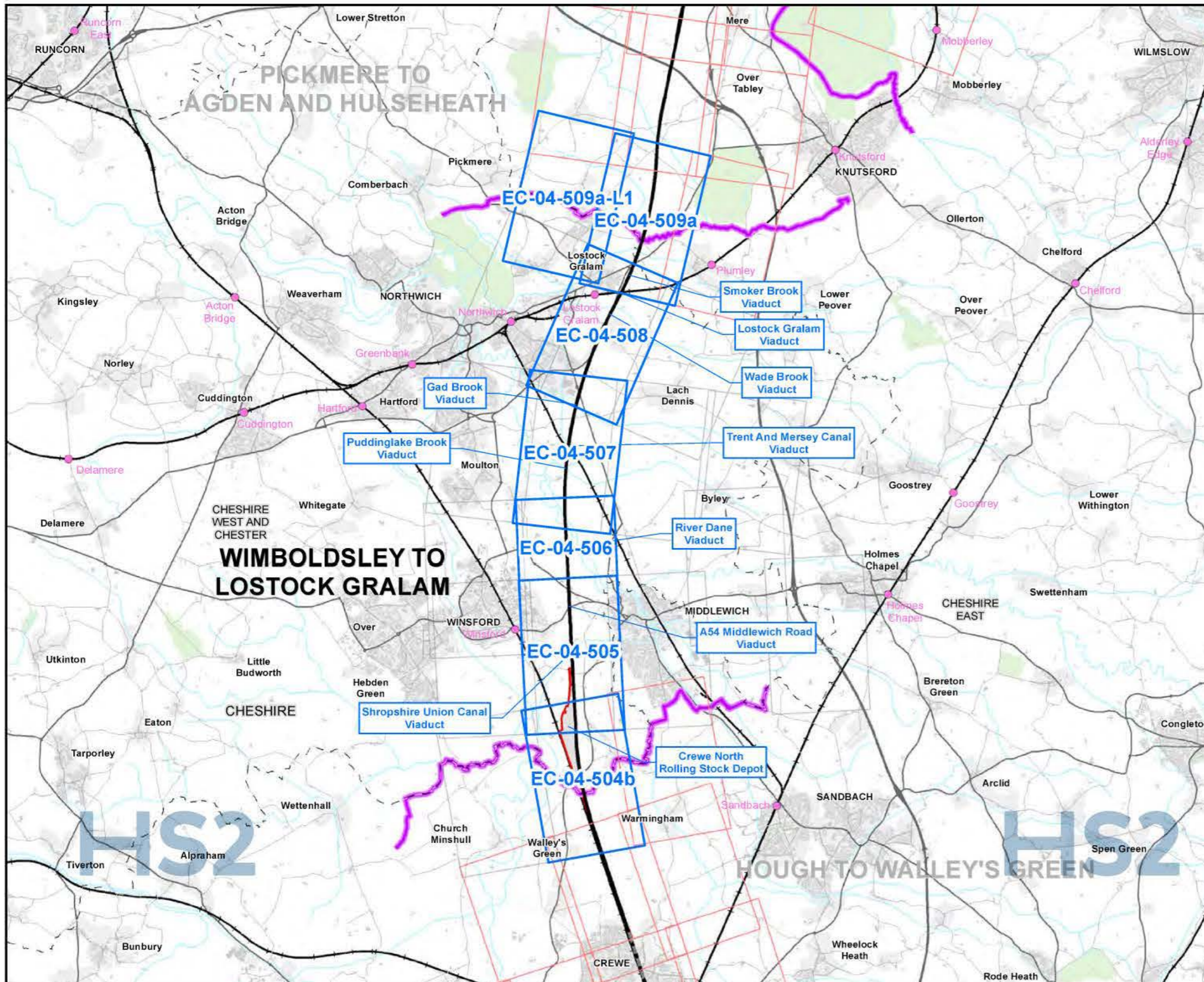
Doc Number: 2PT24-MWJ-EV-MAP-M000-000950-P01

Date: 21/04/22

Scale at A3: 1:10,000

Scale bar: 0 100 200 300 400 metres





**Map Series Information:**

This map series shows the results of amphibian surveys conducted to inform the Environmental Assessment. It principally details the results of great crested newt surveys conducted. In addition it shows the location of those 'exceptional' populations of common amphibians recorded.

- 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 area with no amendment
  - Map sheets not included in this community area

Map Number: EC-04-INDEX-MA02

Map Name: Index Map of:  
Amphibians  
SES1 and AP1 ES  
Community Area MA02:  
Wimboldsley to Lostock Gralam

**HS2**

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Scale at A3: 1:100,000

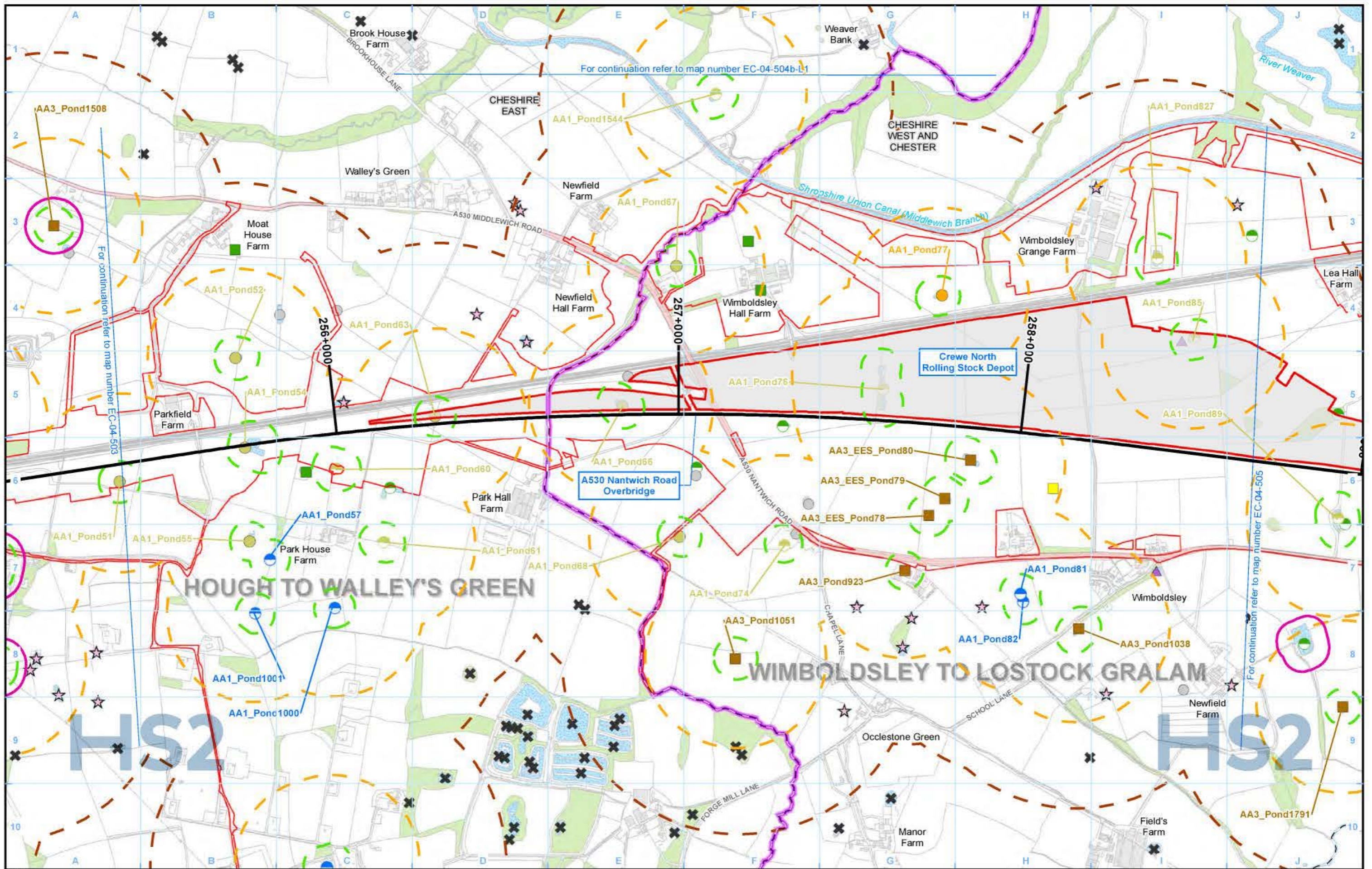
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Doc Number: 2PT24-MWJ-EV-MAP-M000-000983-P01

Date: 21/04/22

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





**Legend**

<ul style="list-style-type: none"> <li>Route in tunnel</li> <li>Route on surface</li> <li>Depot, station, headhouse or portal building</li> <li>Land potentially required during construction</li> <li>Community area boundary</li> <li>County boundary</li> </ul>	<ul style="list-style-type: none"> <li>District/Borough boundary</li> <li>Watercourse</li> <li>Water body</li> <li>Woodland (not verified by survey)</li> <li>Area contains new survey data</li> <li>eDNA survey complete - result inconclusive</li> </ul>	<ul style="list-style-type: none"> <li>eDNA survey complete - GCN present</li> <li>eDNA survey complete - GCN assumed absent</li> <li>GCN present (6 visits) - medium population (11 - 99 adults)</li> <li>GCN present (6 visits) - small population (1 - 10 adults)</li> <li>GCN present (less than 6 visits) - small population (1 - 10 adults)</li> <li>GCN confirmed present - no size class determined</li> <li>Survey complete, GCN assumed absent</li> <li>Survey incomplete, no GCN found</li> </ul>	<ul style="list-style-type: none"> <li>Scoped in - Habitat Suitability Index (HSI)/walkover only</li> <li>Scoped in - no access permission</li> <li>Scoped out - no survey required</li> <li>50m radius from all water bodies where presence of GCN is confirmed</li> <li>250m radius from all water bodies where presence of GCN is confirmed</li> <li>500m radius from all water bodies where presence of GCN is confirmed</li> <li>Areas isolated by significant barriers to amphibian movement</li> </ul>
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Note: GCN = Great Crested Newts

Map Number: EC-04-504b

Map Name: Amphibians SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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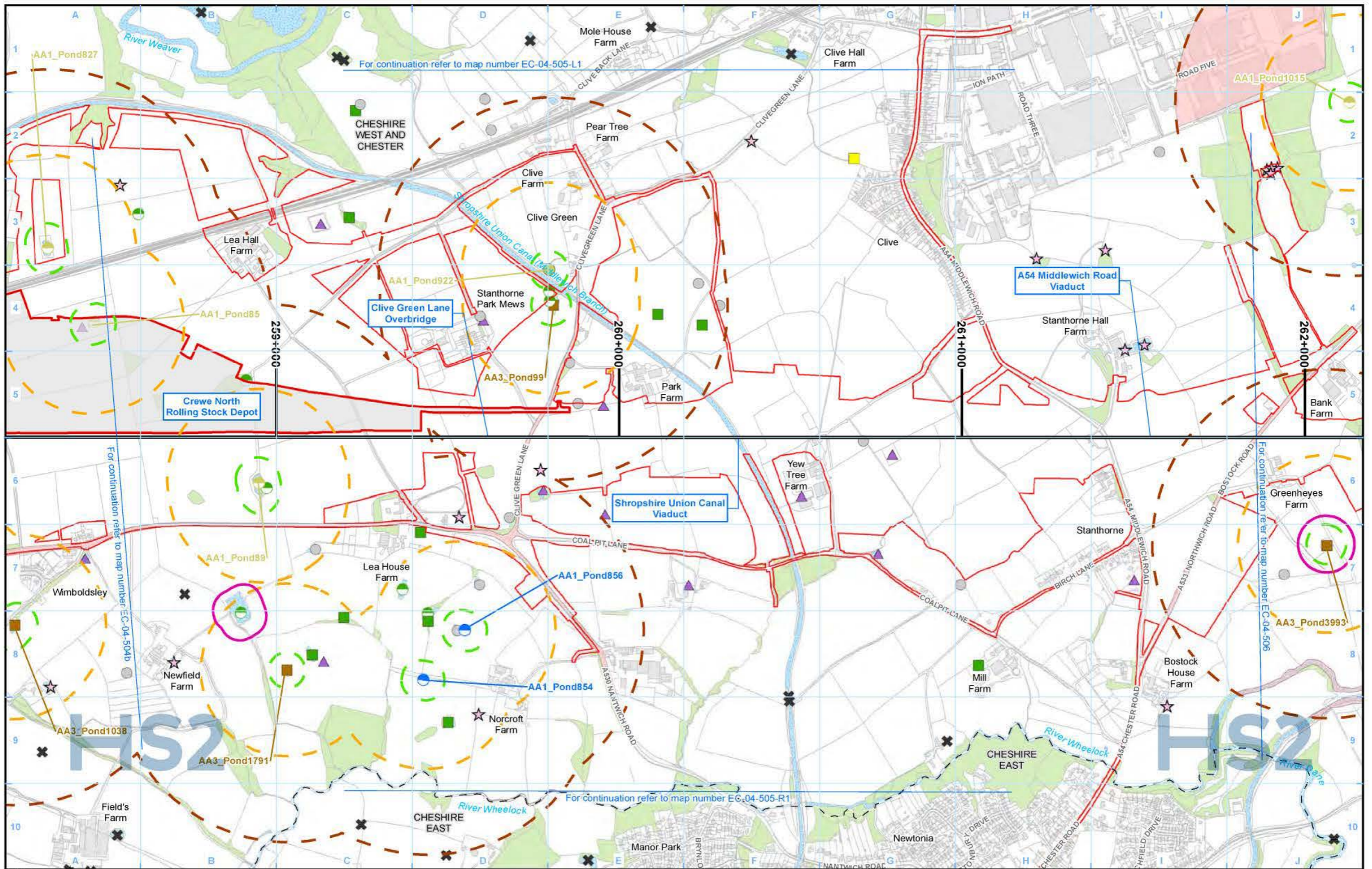
Scale at A3: 1:10,000

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Doc Number: 2PT24-MWJ-EV-MAP-M000-000951-P01

Date: 21/04/22





- 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
  - Water body
  - Woodland (not verified by survey)
  - Area contains new survey data
  - eDNA survey complete - result inconclusive
  - eDNA survey complete - GCN present
  - eDNA survey complete - GCN assumed absent
  - GCN present (6 visits) - small population (1 - 10 adults)
  - GCN present (less than 6 visits) - small population (1 - 10 adults)
  - GCN confirmed present - no size class determined
  - Survey complete, GCN assumed absent
  - Survey incomplete, no GCN found
  - Scoped in - Habitat Suitability Index (HSI)/walkover only
  - Scoped in - no access permission
  - Scoped out - no survey required
  - 50m radius from all water bodies where presence of GCN is confirmed
  - 250m radius from all water bodies where presence of GCN is confirmed
  - 500m radius from all water bodies where presence of GCN is confirmed
  - Areas isolated by significant barriers to amphibian movement

Map Number: EC-04-505  
 Map Name: Amphibians SES1 and AP1 ES  
 Community Area MA02: Wimboldsley to Lostock Gralam

Note: GCN = Great Crested Newts

Map Number: EC-04-505  
 Map Name: Amphibians SES1 and AP1 ES  
 Community Area MA02: Wimboldsley to Lostock Gralam

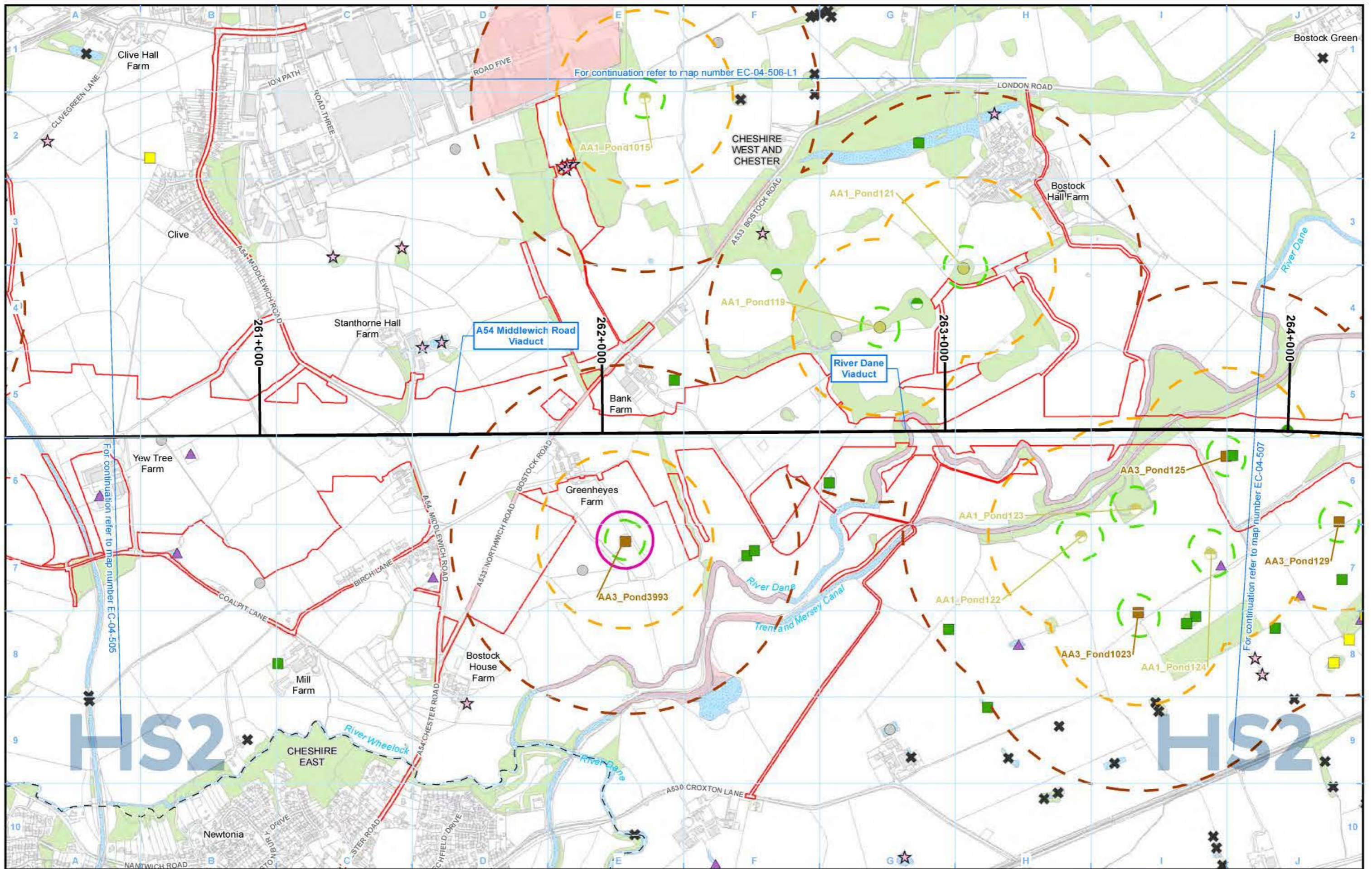
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Doc Number: 2PT24-MWJ-EV-MAP-M000-000952-P01  
 Date: 21/04/22





For continuation refer to map number EC-04-506-L1

For continuation refer to map number EC-04-507

- 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
  - Water body
  - Woodland (not verified by survey)
  - Area contains new survey data
  - eDNA survey complete - result inconclusive
  - eDNA survey complete - GCN present
  - eDNA survey complete - GCN assumed absent
  - GCN present (6 visits) - small population (1 - 10 adults)
  - GCN present (less than 6 visits) - small population (1 - 10 adults)
  - Survey complete, GCN assumed absent
  - Survey incomplete, no GCN found
  - Scoped in - Habitat Suitability Index (HSI)/walkover only
  - ☆ Scoped in - no access permission
  - ✖ Scoped out - no survey required
  - 50m radius from all water bodies where presence of GCN is confirmed
  - 250m radius from all water bodies where presence of GCN is confirmed
  - 500m radius from all water bodies where presence of GCN is confirmed
  - Areas isolated by significant barriers to amphibian movement

- 50m radius from all water bodies where presence of GCN is confirmed
- 250m radius from all water bodies where presence of GCN is confirmed
- 500m radius from all water bodies where presence of GCN is confirmed
- Areas isolated by significant barriers to amphibian movement

Map Number: EC-04-506

Map Name: Amphibians SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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Doc Number: 2PT24-MWJ-EV-MAP-M000-000953-P01

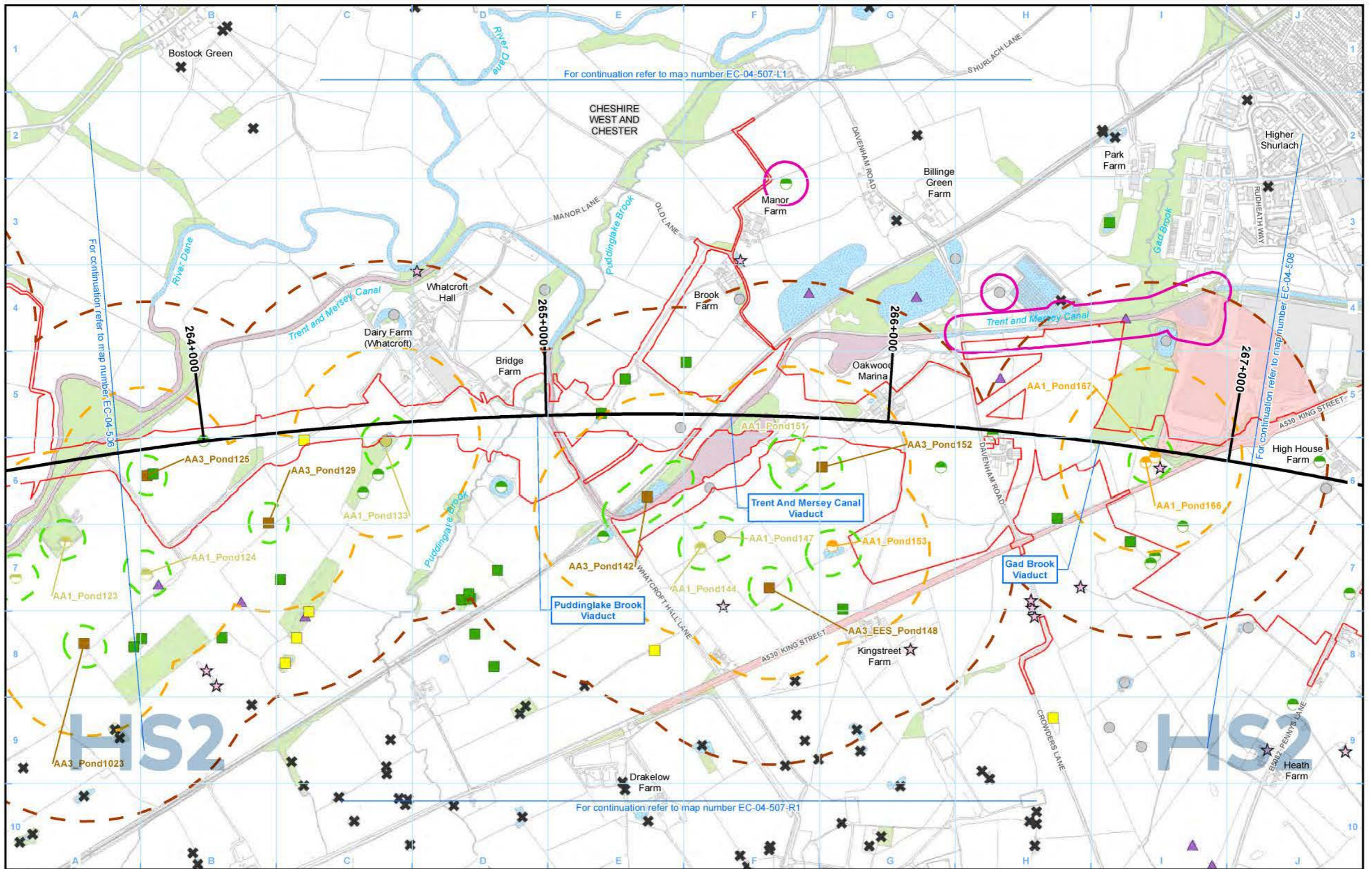
Date: 21/04/22

Scale at A3: 1:10,000

OS 100049190

Note: GCN = Great Crested Newts





**Legend**

<ul style="list-style-type: none"> <li>Route in tunnel</li> <li>Route on surface</li> <li>Depot, station, headhouse or portal building</li> <li>Land potentially required during construction</li> <li>Community area boundary</li> <li>County boundary</li> </ul>	<ul style="list-style-type: none"> <li>District/Borough boundary</li> <li>Watercourse</li> <li>Water body</li> <li>Woodland (not verified by survey)</li> <li>Area contains new survey data</li> <li>eDNA survey complete - result inconclusive</li> </ul>	<ul style="list-style-type: none"> <li>eDNA survey complete - GCN present</li> <li>eDNA survey complete - GCN assumed absent</li> <li>GCN present (6 visits) - small population (1 - 10 adults)</li> <li>GCN present (less than 6 visits) - medium population (11 - 99 adults)</li> <li>GCN present (less than 6 visits) - small population (1 - 10 adults)</li> <li>Survey complete, GCN assumed absent</li> <li>Survey incomplete, no GCN found</li> <li>Scoped in - Habitat Suitability Index (HSI)/walkover only</li> </ul>	<ul style="list-style-type: none"> <li>Scoped in - no access permission</li> <li>Scoped out - no survey required</li> <li>50m radius from all water bodies where presence of GCN is confirmed</li> <li>250m radius from all water bodies where presence of GCN is confirmed</li> <li>500m radius from all water bodies where presence of GCN is confirmed</li> <li>Areas isolated by significant barriers to amphibian movement</li> </ul>
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Note: GCN = Great Crested Newts

Map Number: EC-04-507

Map Name: Amphibians SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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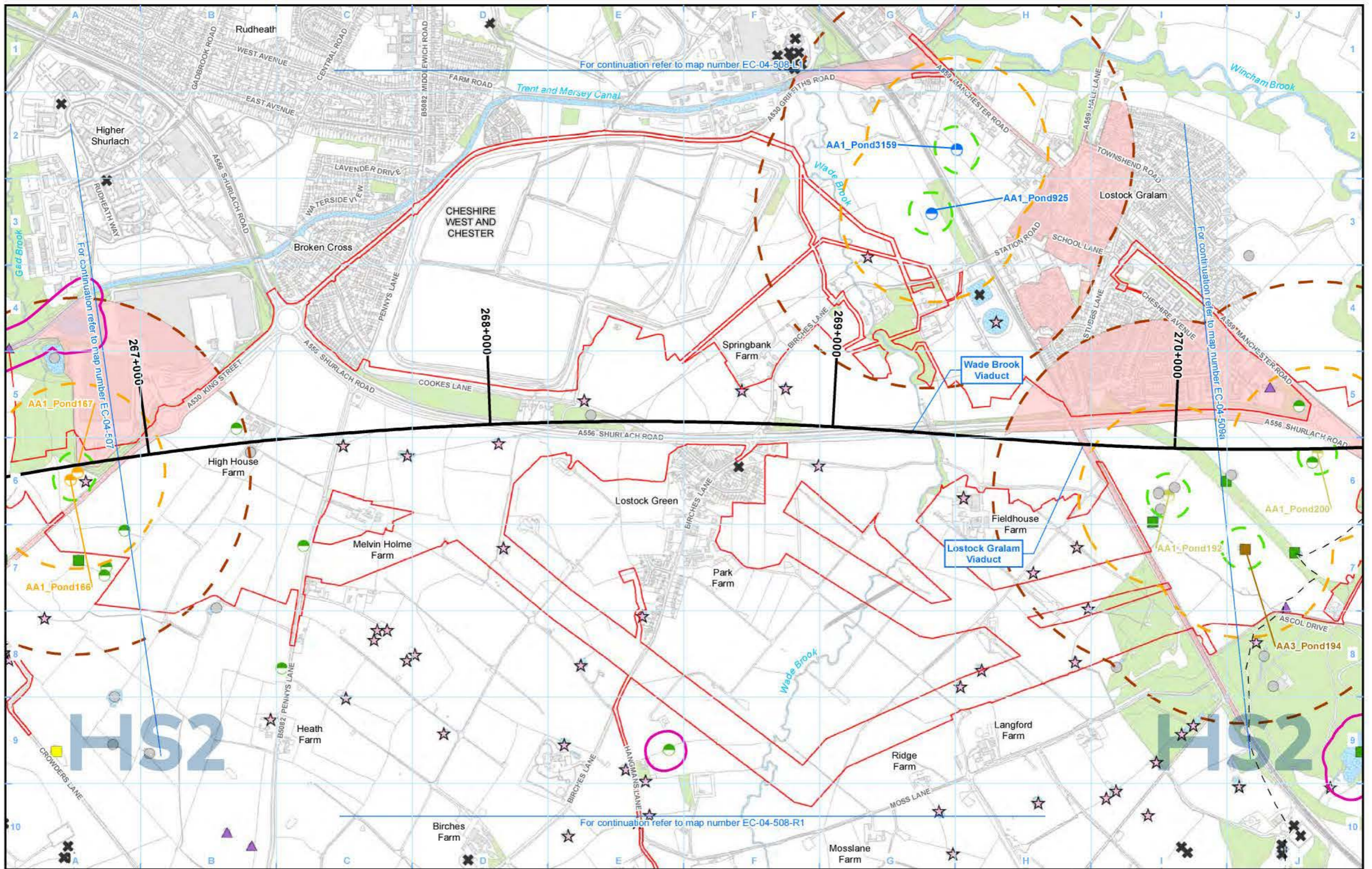
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Doc Number: 2PT24-MWJ-EV-MAP-M000-000954-P01

Date: 21/04/22





For continuation refer to map number EC-04-508-L1

For continuation refer to map number EC-04-509A

For continuation refer to map number EC-04-508-R1

- 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
  - Water body
  - Woodland (not verified by survey)
  - Area contains new survey data
  - eDNA survey complete - result inconclusive

- eDNA survey complete - GCN present
- eDNA survey complete - GCN assumed absent
- GCN present (less than 6 visits) - medium population (11 - 99 adults)
- GCN present (less than 6 visits) - small population (1 - 10 adults)

- GCN confirmed present - no size class determined
- Survey complete, GCN assumed absent
- Survey incomplete, no GCN found
- Scoped in - Habitat Suitability Index (HSI)/walkover only

- Scoped in - no access permission
- Scoped out - no survey required

- 50m radius from all water bodies where presence of GCN is confirmed
- 250m radius from all water bodies where presence of GCN is confirmed
- 500m radius from all water bodies where presence of GCN is confirmed
- Areas isolated by significant barriers to amphibian movement

Note: GCN = Great Crested Newts

Map Number: EC-04-508

Map Name: Amphibians SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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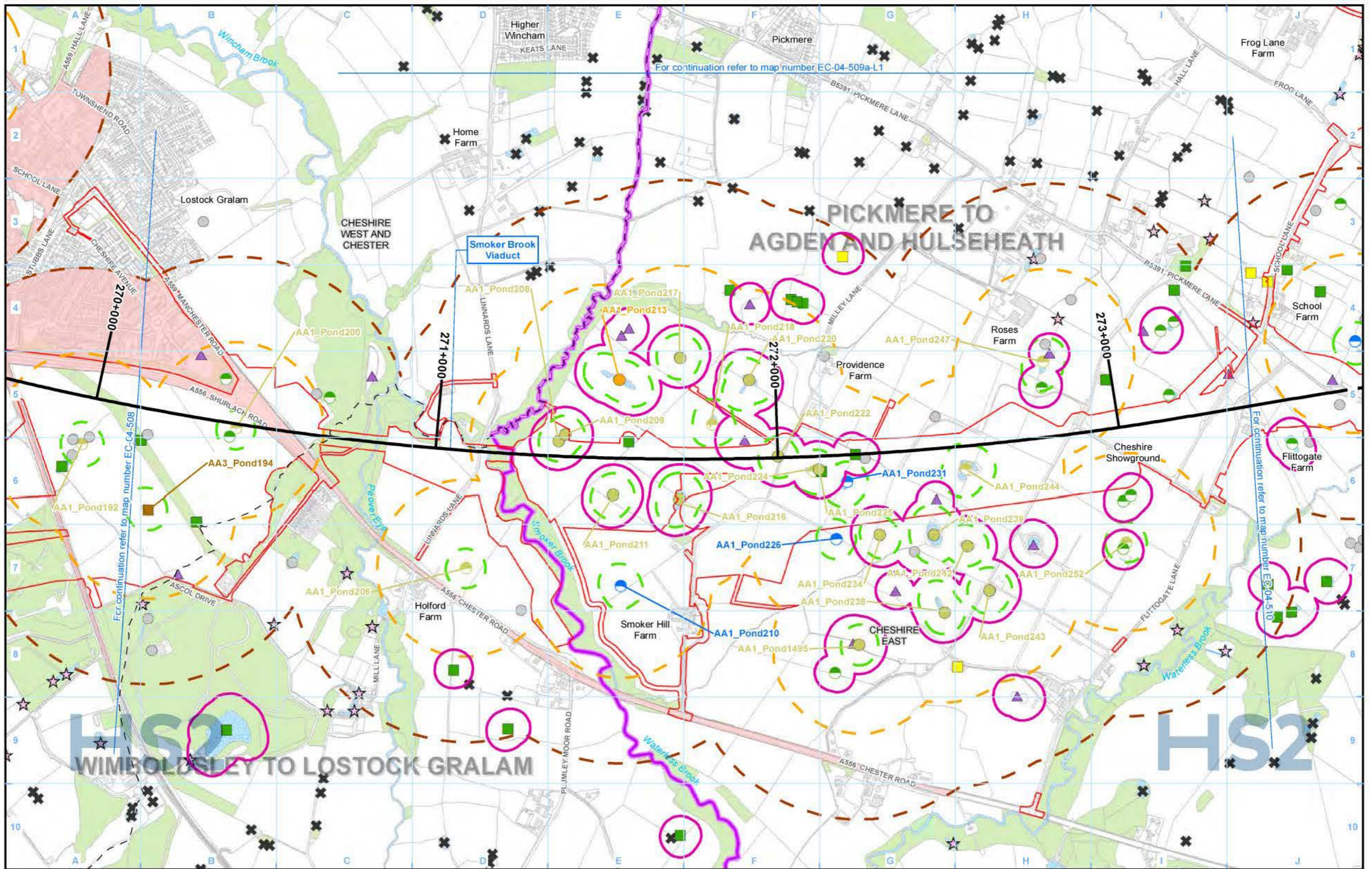
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Date: 21/04/22

Scale at A3: 1:10,000





**Legend**

<ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> </ul>	<ul style="list-style-type: none"> <li> District/Borough boundary</li> <li> Watercourse</li> <li> Water body</li> <li> Woodland (not verified by survey)</li> <li> Area contains new survey data</li> <li> eDNA survey complete - result inconclusive</li> </ul>	<ul style="list-style-type: none"> <li> eDNA survey complete - GCN present</li> <li> eDNA survey complete - GCN assumed absent</li> <li> GCN present (6 visits) - medium population (11 - 99 adults)</li> <li> GCN present (6 visits) - small population (1 - 10 adults)</li> <li> GCN present (less than 6 visits) - small population (1 - 10 adults)</li> <li> GCN confirmed present - no size class determined</li> <li> Survey complete, GCN assumed absent</li> <li> Survey incomplete, no GCN found</li> </ul>	<ul style="list-style-type: none"> <li> Scoped in - Habitat Suitability Index (HSI)/walkover only</li> <li> Scoped in - no access permission</li> <li> Scoped out - no survey required</li> <li> 50m radius from all water bodies where presence of GCN is confirmed</li> <li> 250m radius from all water bodies where presence of GCN is confirmed</li> <li> 500m radius from all water bodies where presence of GCN is confirmed</li> <li> Areas isolated by significant barriers to amphibian movement</li> </ul>
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Note: GCN = Great Crested Newts

Map Number: EC-04-509a

Map Name: Amphibians SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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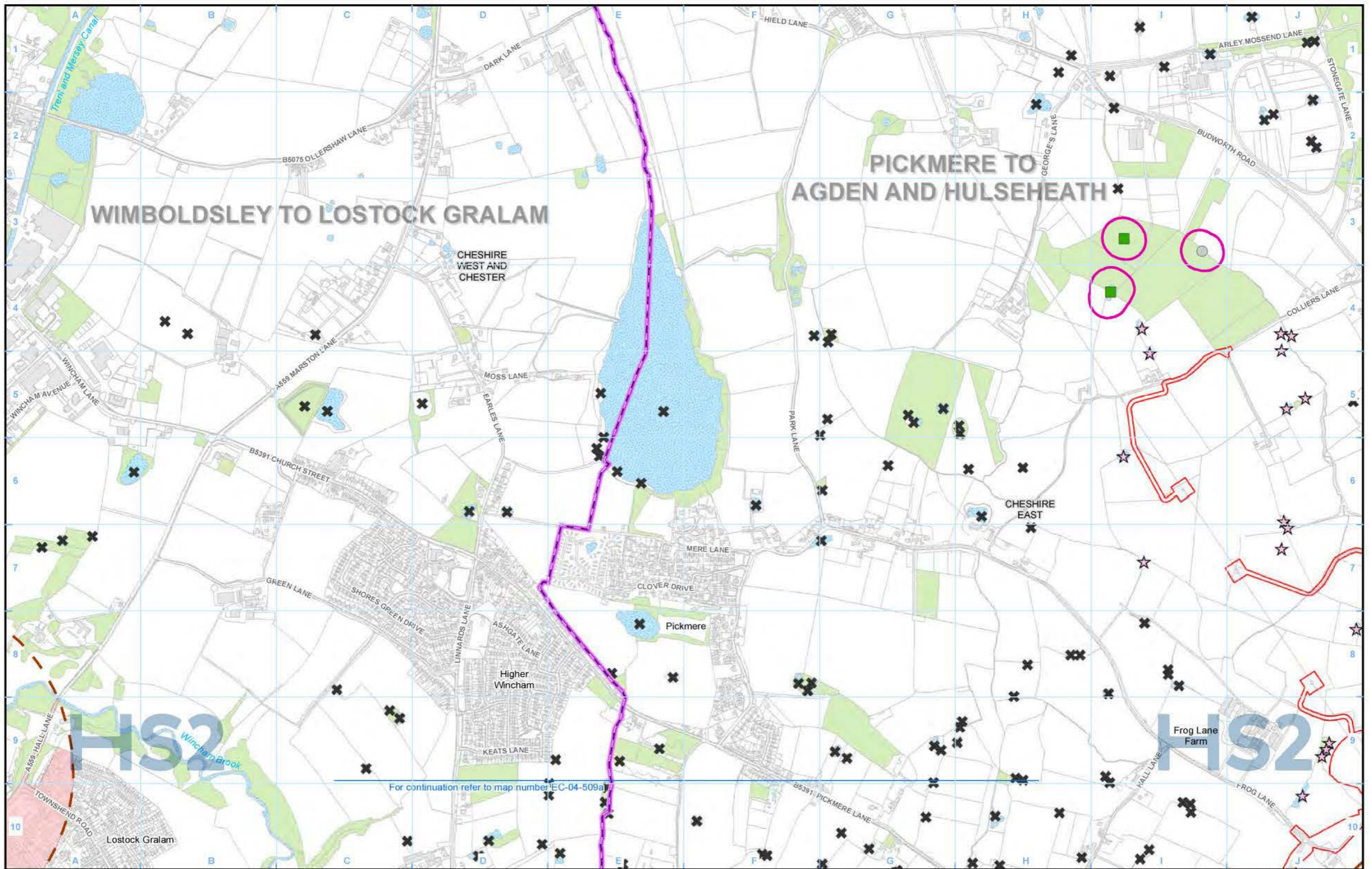
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Date: 21/04/22





- 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
  - Water body
  - Woodland (not verified by survey)
  - Area contains new survey data
  - eDNA survey complete - GCN assumed absent
  - Survey incomplete, no GCN found
  - Scoped in - no access permission
  - Scoped out - no survey required
  - 500m radius from all water bodies where presence of GCN is confirmed
  - Areas isolated by significant barriers to amphibian movement

For continuation refer to map number EC-04-509a

Note: GCN = Great Crested Newts

Map Number: EC-04-509a-L1

Map Name: Amphibians SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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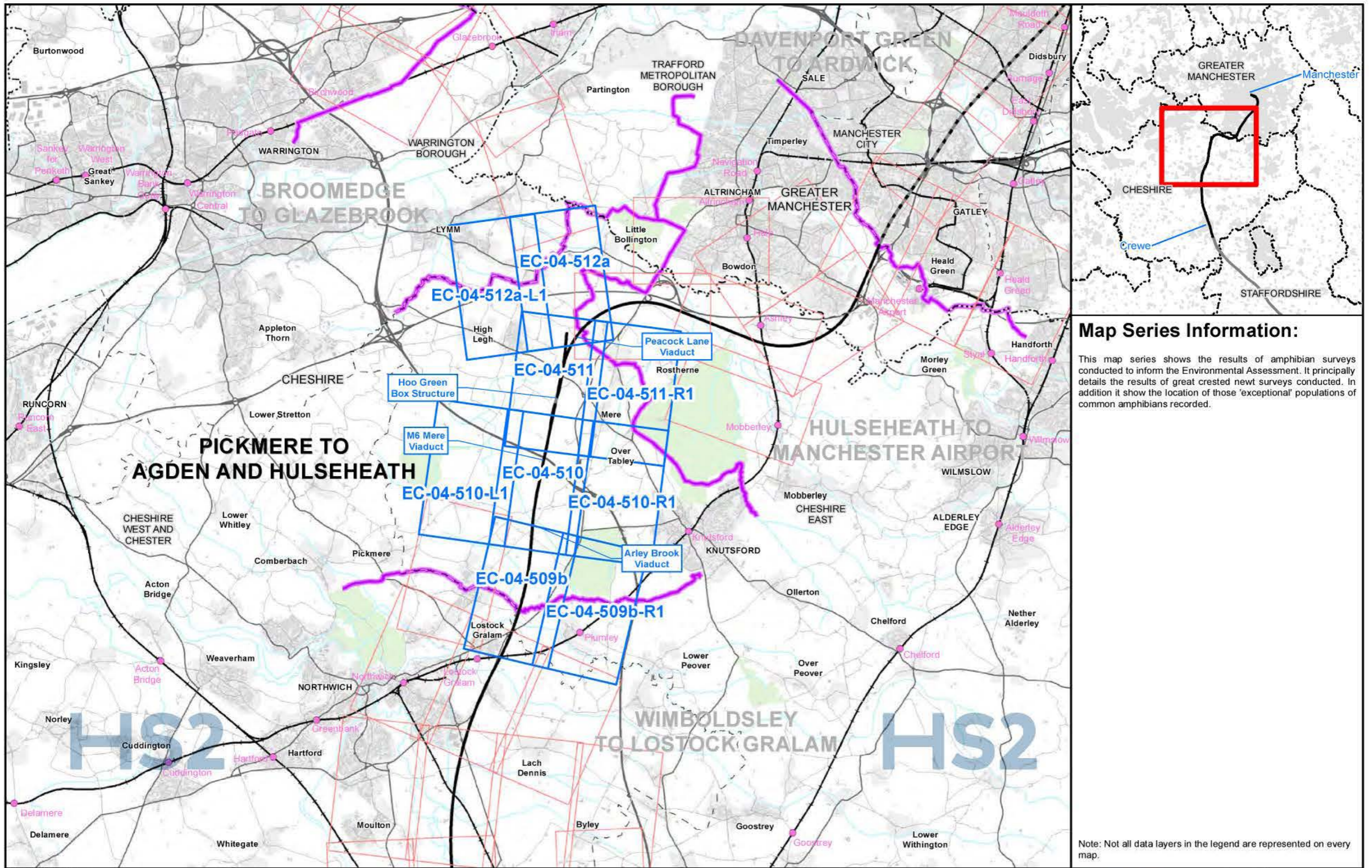
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Date: 21/04/22

Scale at A3: 1:10,000





**Map Series Information:**

This map series shows the results of amphibian surveys conducted to inform the Environmental Assessment. It principally details the results of great crested newt surveys conducted. In addition it shows the location of those 'exceptional' populations of common amphibians recorded.

- 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 area with no amendment
  - Map sheets not included in this community area

Map Number: EC-04-INDEX-MA03

Map Name: Index Map of:  
Amphibians  
SES1 and AP1 ES  
Community Area MA03:  
Pickmere to Agden and Hulseheath

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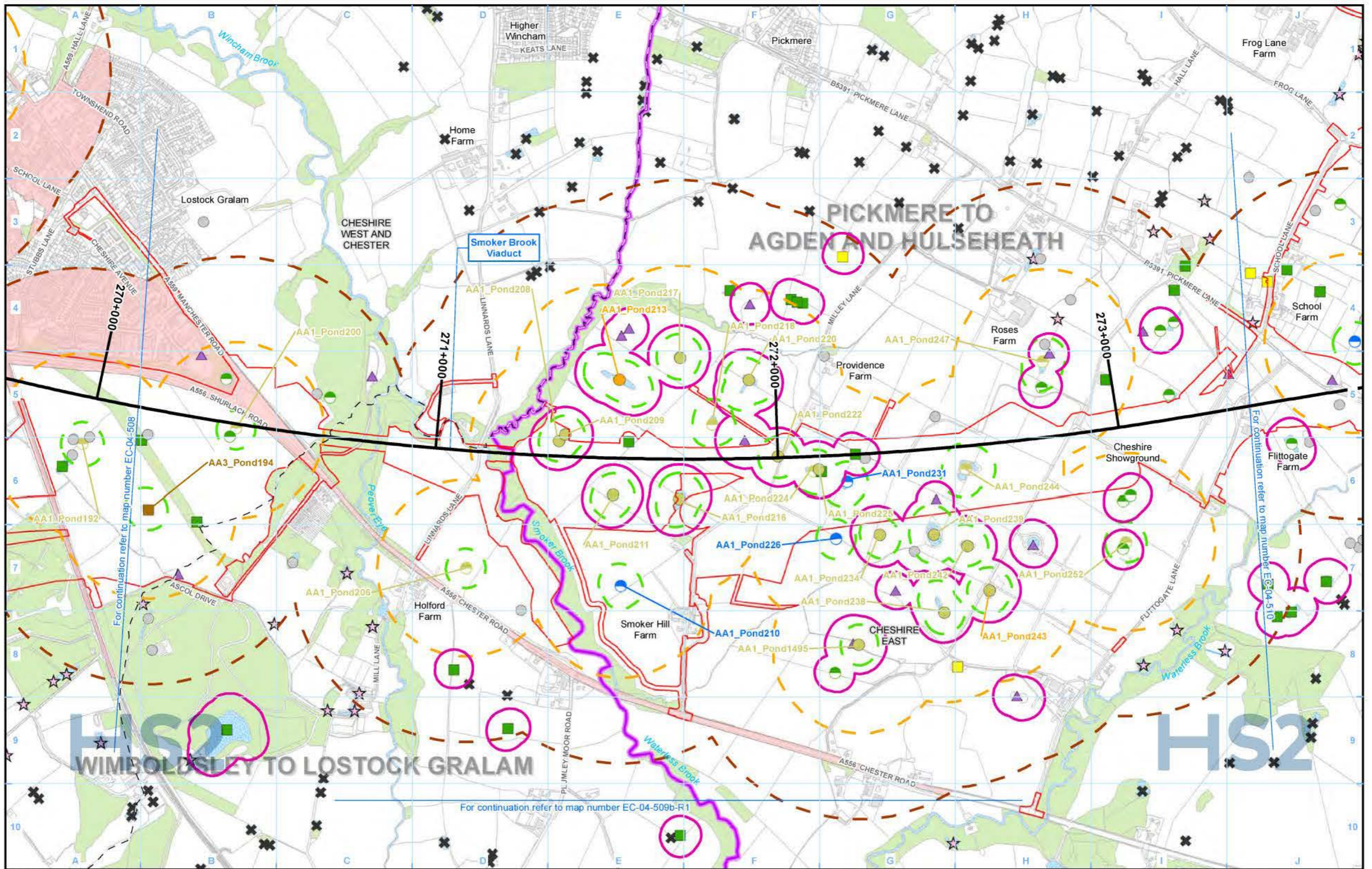
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Doc Number: 2PT24-MWJ-EV-MAP-M000-000984-P01

Date: 21/04/22





Legend	
	District/Borough boundary
	Watercourse
	Water body
	Woodland (not verified by survey)
	Area contains new survey data
	eDNA survey complete - result inconclusive
	eDNA survey complete - GCN assumed absent
	GCN present (6 visits) - medium population (11 - 99 adults)
	GCN present (6 visits) - small population (1 - 10 adults)
	GCN present (less than 6 visits) - small population (1 - 10 adults)
	GCN confirmed present - no size class determined
	Survey complete, GCN assumed absent
	Survey incomplete, no GCN found
	Scoped in - Habitat Suitability Index (HSI)/walkover only
	Scoped in - no access permission
	Scoped out - no survey required
	50m radius from all water bodies where presence of GCN is confirmed
	250m radius from all water bodies where presence of GCN is confirmed
	500m radius from all water bodies where presence of GCN is confirmed
	Areas isolated by significant barriers to amphibian movement

Map Number	EC-04-509b
Map Name	Amphibians SES1 and AP1 ES
Community Area MA03: Pickmere to Agden and Hulseheath	

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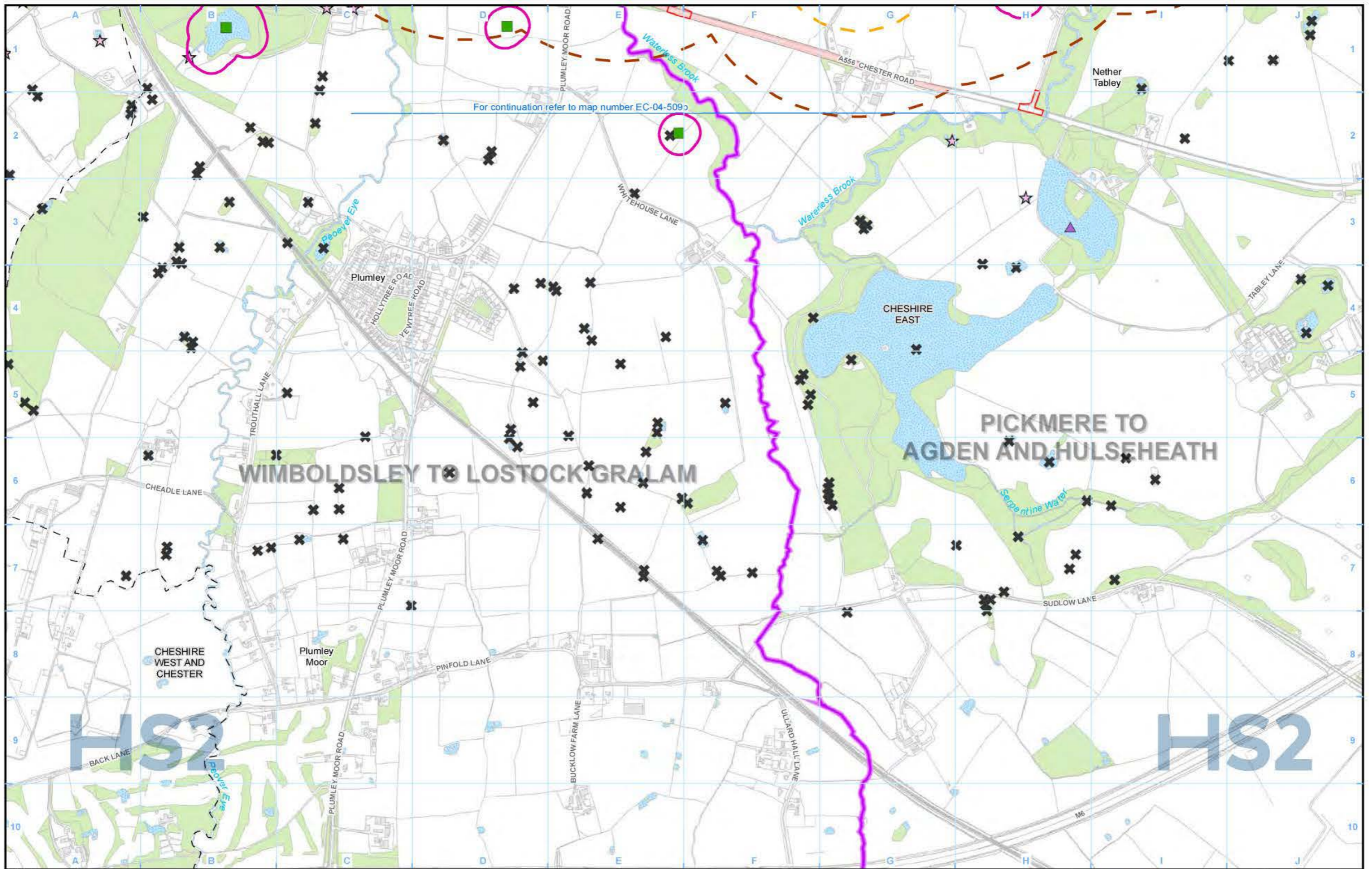
Doc Number: 2PT24-MWJ-EV-MAP-M000-000957-P01

Scale at A3: 1:10,000

Date: 21/04/22

Note: GCN = Great Crested Newts





For continuation refer to map number EC-04-509b

**WIMBOLDSLEY TO LOSTOCK GRALAM**

**PICKMERE TO AGDEN AND HULSEHEATH**

- 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
  - Water body
  - Woodland (not verified by survey)
  - Area contains new survey data
  - eDNA survey complete - GCN assumed absent

- Scoped in - Habitat Suitability Index (HSI)/walkover only
- Scoped in - no access permission
- Scoped out - no survey required

- 250m radius from all water bodies where presence of GCN is confirmed
- 500m radius from all water bodies where presence of GCN is confirmed
- Areas isolated by significant barriers to amphibian movement

Note: GCN = Great Crested Newts

Map Number: EC-04-509b-R1

Map Name: Amphibians SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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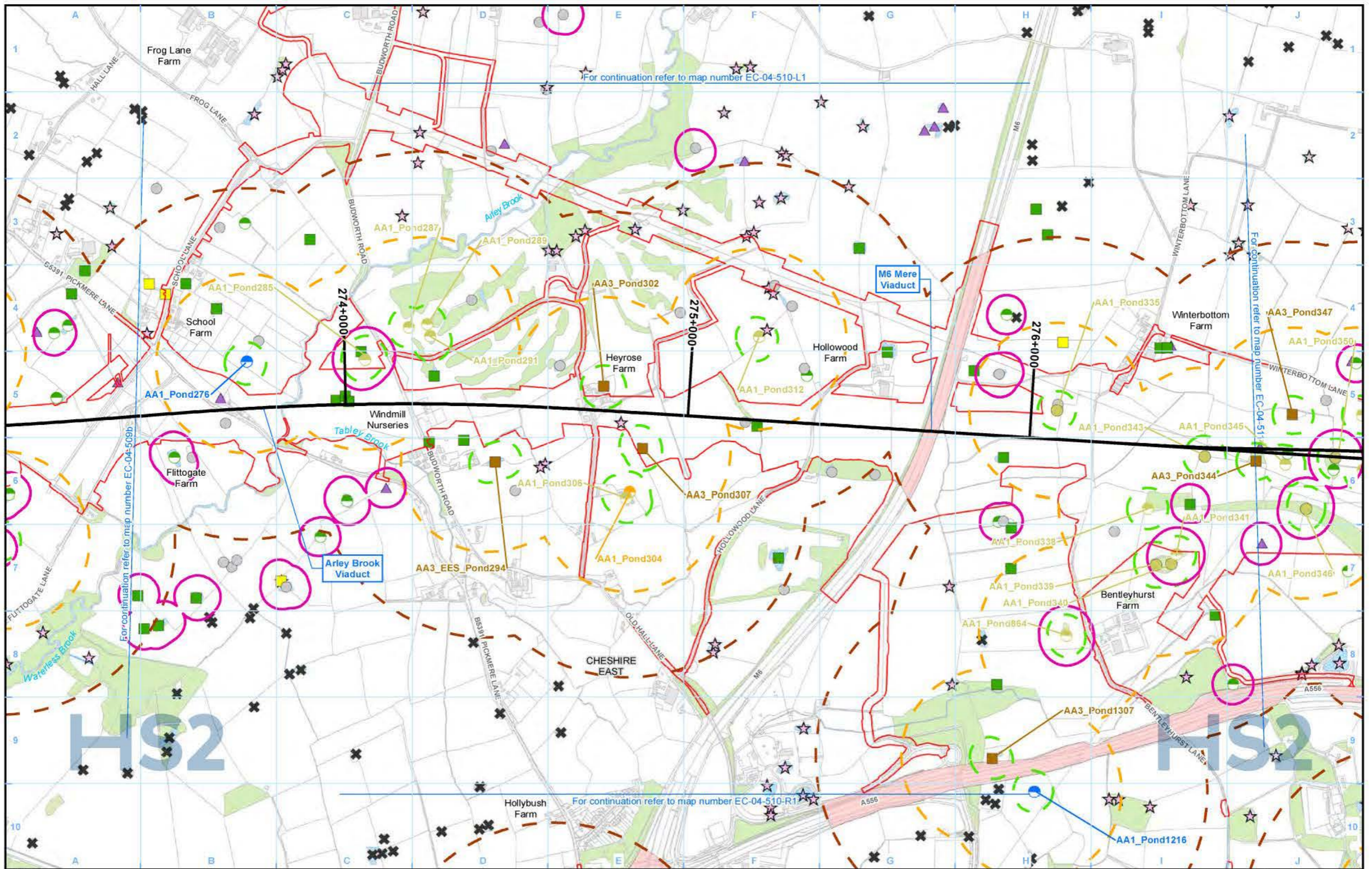
Doc Number: 2PT24-MWJ-EV-MAP-M000-002977-P01

Date: 21/04/22

Scale at A3: 1:10,000

100 200 300 400 Metres





For continuation refer to map number EC-04-509b

For continuation refer to map number EC-04-510-L1

For continuation refer to map number EC-04-511

For continuation refer to map number EC-04-510-R1

- 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
  - Water body
  - Woodland (not verified by survey)
  - Area contains new survey data
  - eDNA survey complete - result inconclusive

- eDNA survey complete - GCN present
- eDNA survey complete - GCN assumed absent
- GCN present (6 visits) - small population (1 - 10 adults)
- GCN present (less than 6 visits) - medium population (11 - 99 adults)

- GCN present (less than 6 visits) - small population (1 - 10 adults)
- GCN confirmed present - no size class determined
- Survey complete, GCN assumed absent
- Survey incomplete, no GCN found

- Scoped in - Habitat Suitability Index (HSI)/walkover only
- Scoped in - no access permission
- Scoped out - no survey required

- 50m radius from all water bodies where presence of GCN is confirmed
- 250m radius from all water bodies where presence of GCN is confirmed
- 500m radius from all water bodies where presence of GCN is confirmed
- Areas isolated by significant barriers to amphibian movement

Note: GCN = Great Crested Newts

Map Number: EC-04-510

Map Name: Amphibians SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

**HS2**

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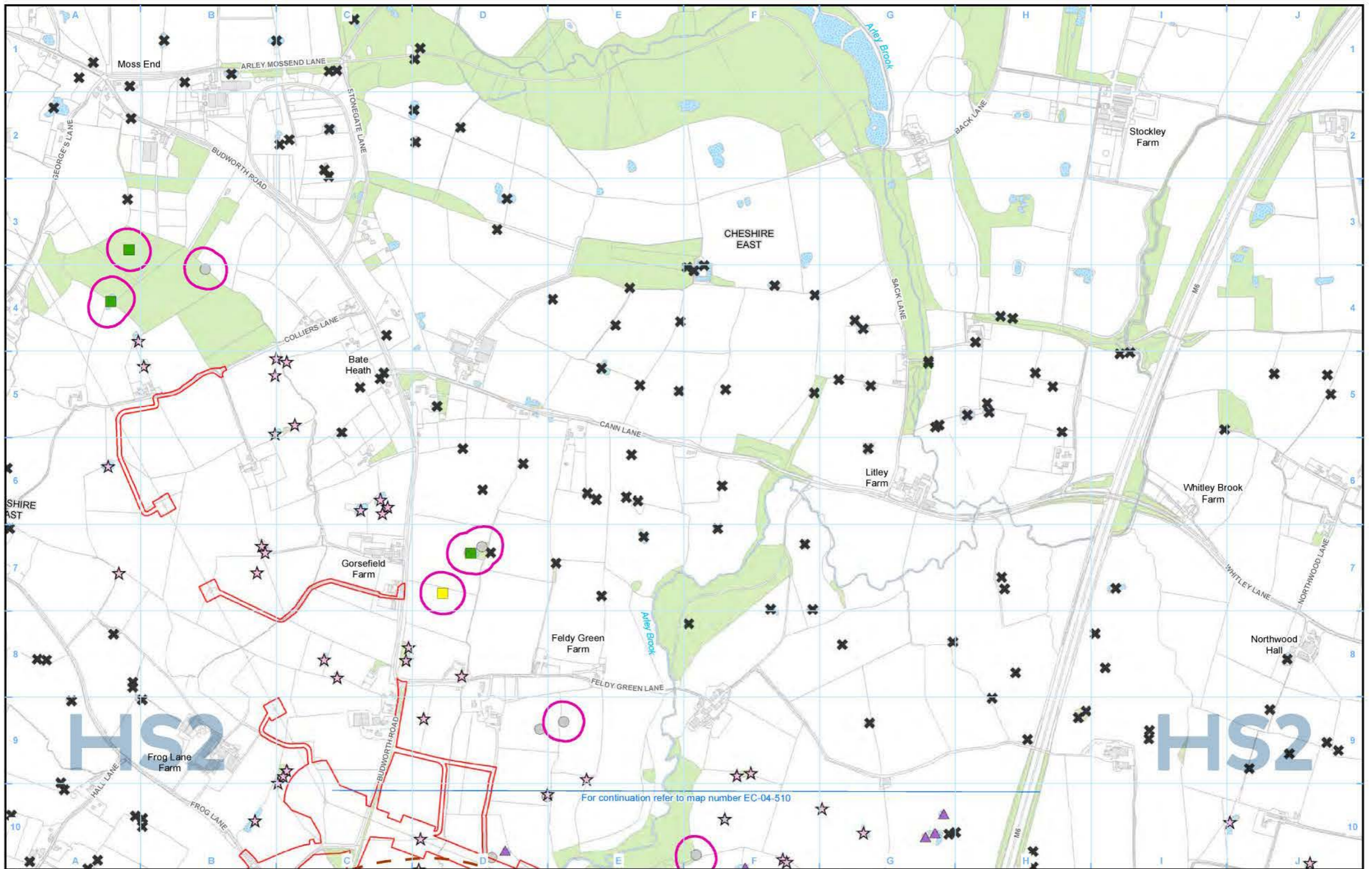
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Doc Number: 2PT24-MWJ-EV-MAP-M000-000958-P01

Date: 21/04/22

Scale at A3: 1:10,000





**Legend**

Route in tunnel	District/Borough boundary	eDNA survey complete - GCN assumed absent	Scoped in - no access permission	500m radius from all water bodies where presence of GCN is confirmed
Route on surface	Watercourse	Survey incomplete, no GCN found	Scoped out - no survey required	
Depot, station, headhouse or portal building	Water body	Scoped in - Habitat Suitability Index (HSI)/walkover only		
Land potentially required during construction	Woodland (not verified by survey)	eDNA survey complete - result inconclusive		
Community area boundary	Area contains new survey data			
County boundary				

Map Number: EC-04-510-L1

Map Name: Amphibians SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

Note: GCN = Great Crested Newts

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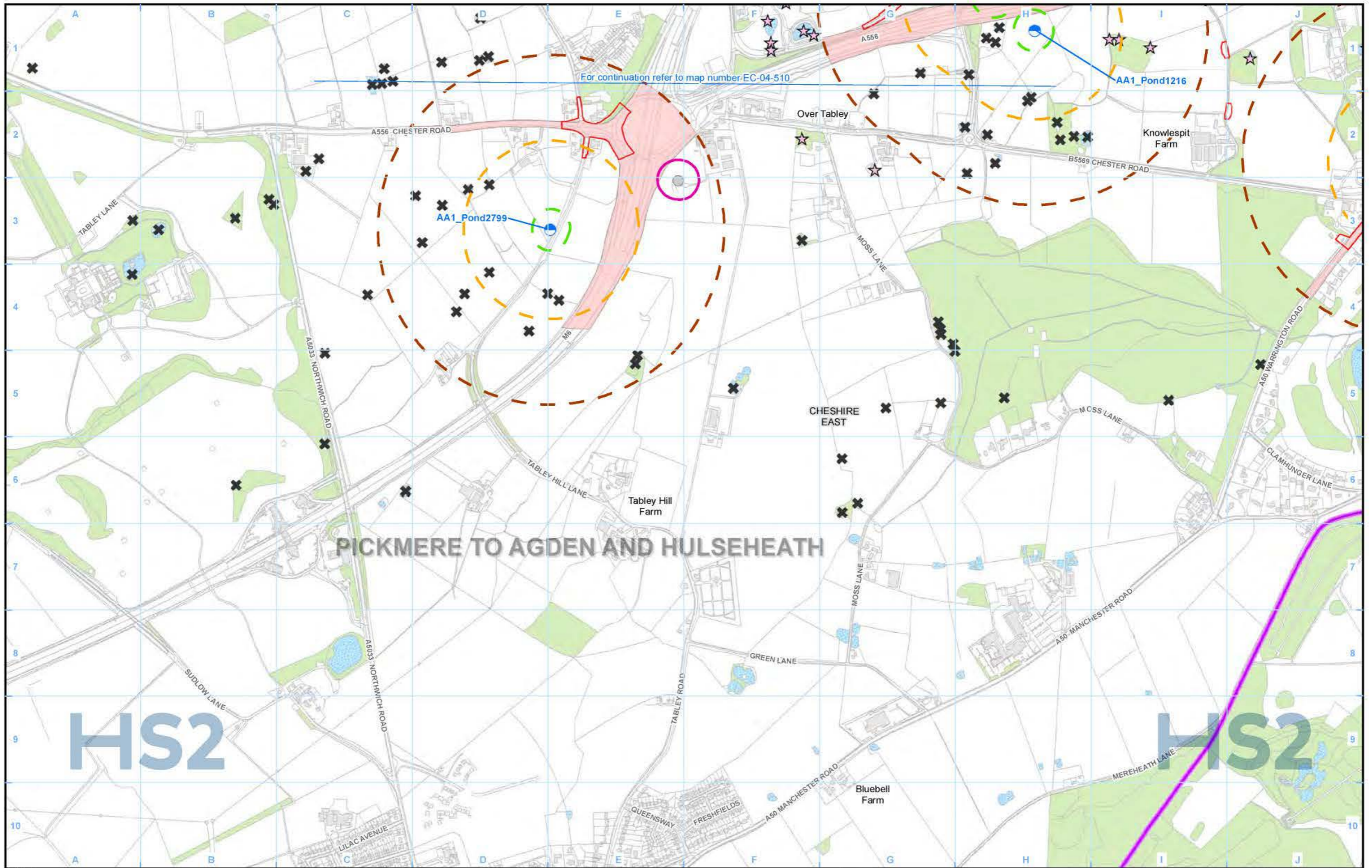
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Doc Number: 2PT24-MWJ-EV-MAP-M000-002919-P01

Date: 21/04/22

Scale at A3: 1:10,000





- 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
  - Water body
  - Woodland (not verified by survey)
  - Area contains new survey data
  - GCN confirmed present - no size class determined
  - Survey incomplete, no GCN found
  - Scoped in - no access permission
  - Scoped out - no survey required
  - 50m radius from all water bodies where presence of GCN is confirmed
  - 250m radius from all water bodies where presence of GCN is confirmed
  - 500m radius from all water bodies where presence of GCN is confirmed
  - Areas isolated by significant barriers to amphibian movement

**PICKMERE TO AGDEN AND HULSEHEATH**

Note: GCN = Great Crested Newts

Map Number: EC-04-510-R1

Map Name: Amphibians SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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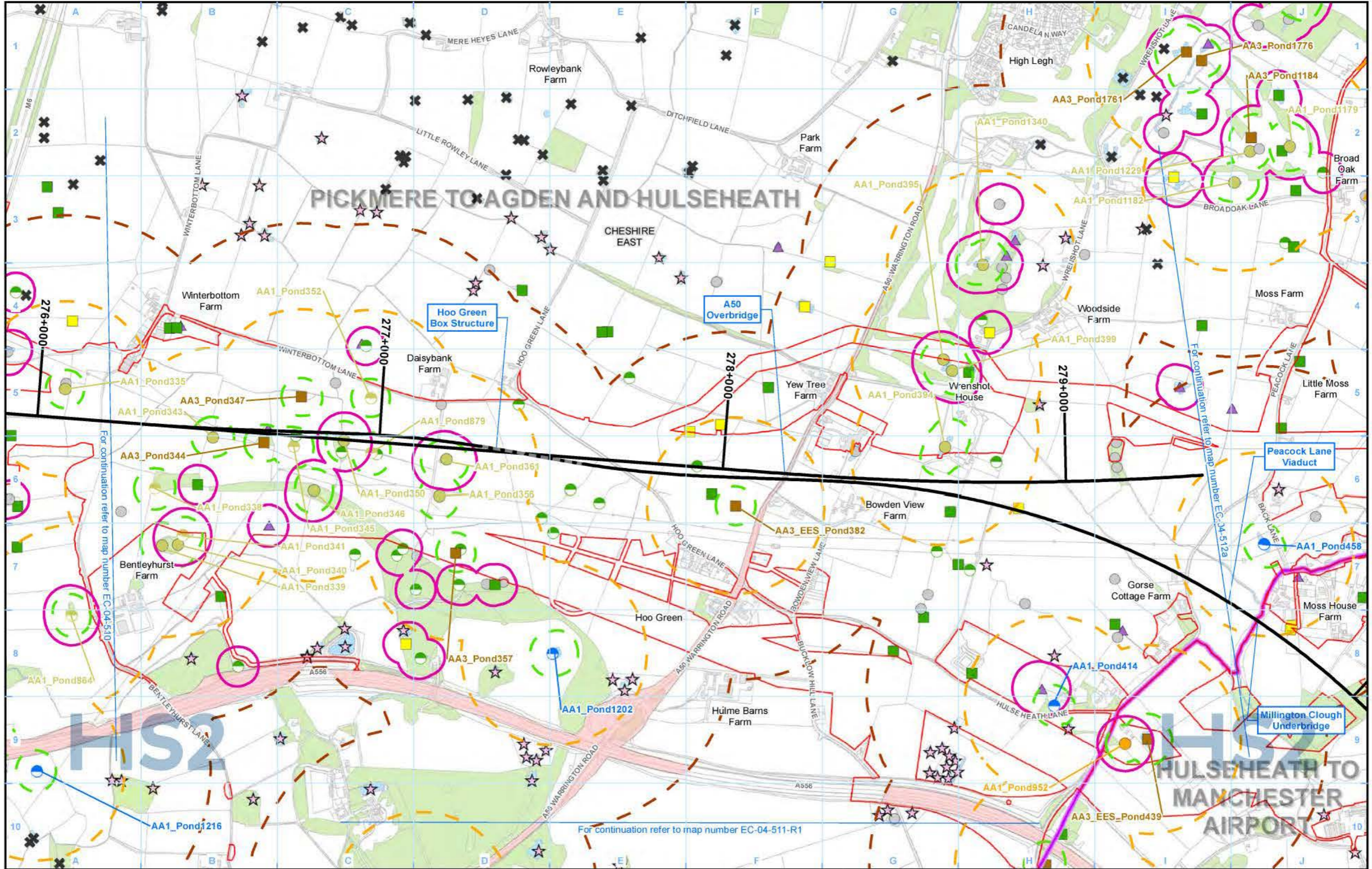
Doc Number: 2PT24-MWJ-EV-MAP-M000-002978-P01

Date: 21/04/22

Scale at A3: 1:10,000

100 200 300 400 Metres





**Legend**

<ul style="list-style-type: none"> <li>Route in tunnel</li> <li>Route on surface</li> <li>Depot, station, headhouse or portal building</li> <li>Land potentially required during construction</li> <li>Community area boundary</li> <li>County boundary</li> </ul>	<ul style="list-style-type: none"> <li>District/Borough boundary</li> <li>Watercourse</li> <li>Water body</li> <li>Woodland (not verified by survey)</li> <li>Area contains new survey data</li> <li>eDNA survey complete - result inconclusive</li> </ul>	<ul style="list-style-type: none"> <li>eDNA survey complete - GCN present</li> <li>eDNA survey complete - GCN assumed absent</li> <li>GCN present (6 visits) - medium population (11 - 99 adults)</li> <li>GCN present (6 visits) - small population (1 - 10 adults)</li> <li>GCN present (less than 6 visits) - small population (1 - 10 adults)</li> <li>GCN confirmed present - no size class determined</li> <li>Survey complete, GCN assumed absent</li> <li>Survey incomplete, no GCN found</li> </ul>	<ul style="list-style-type: none"> <li>Scoped in - Habitat Suitability Index (HSI)/walkover only</li> <li>Scoped in - no access permission</li> <li>Scoped out - no survey required</li> <li>50m radius from all water bodies where presence of GCN is confirmed</li> <li>250m radius from all water bodies where presence of GCN is confirmed</li> <li>500m radius from all water bodies where presence of GCN is confirmed</li> <li>Areas isolated by significant barriers to amphibian movement</li> </ul>
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Note: GCN = Great Crested Newts

Map Number: EC-04-511

Map Name: Amphibians SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

**HS2**

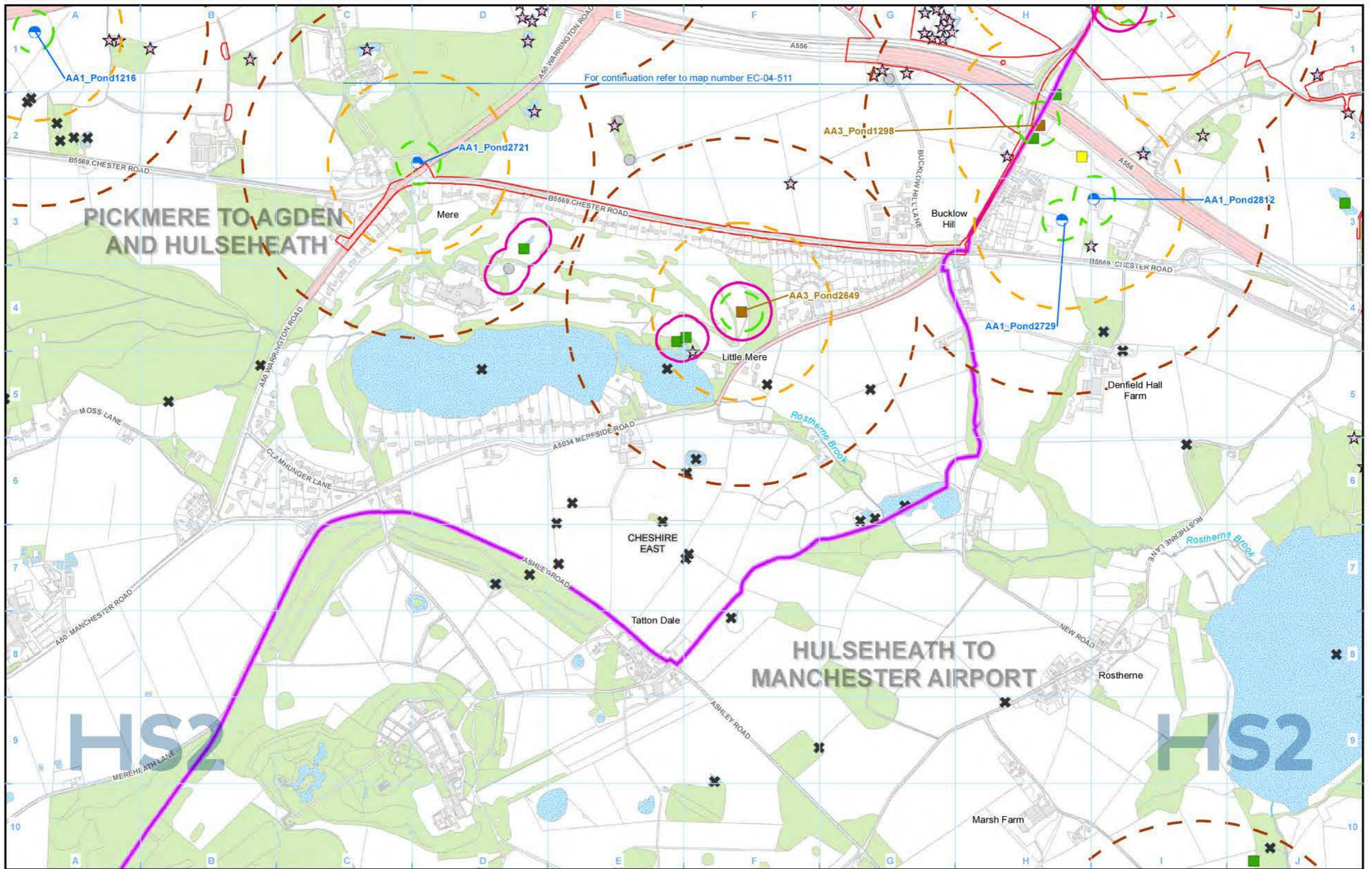
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Registered office: Two Streebhl, Snow Hill Queensway, Birmingham B4 6QA.

Scale at A3: 1:10,000

Doc Number: 2PT24-MWJ-EV-MAP-M000-000959-P01

Date: 21/04/22





For continuation refer to map number EC-04-511

- 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
  - Water body
  - Woodland (not verified by survey)
  - Area contains new survey data
  - eDNA survey complete - result inconclusive

- eDNA survey complete - GCN present
- eDNA survey complete - GCN assumed absent
- GCN present (6 visits) - medium population (11 - 99 adults)
- GCN confirmed present - no size class determined
- Survey incomplete, no GCN found
- Scoped in - no access permission
- Scoped out - no survey required

- 50m radius from all water bodies where presence of GCN is confirmed
- 250m radius from all water bodies where presence of GCN is confirmed
- 500m radius from all water bodies where presence of GCN is confirmed
- Areas isolated by significant barriers to amphibian movement

Note: GCN = Great Crested Newts

Map Number: EC-04-511-R1

Map Name: Amphibians SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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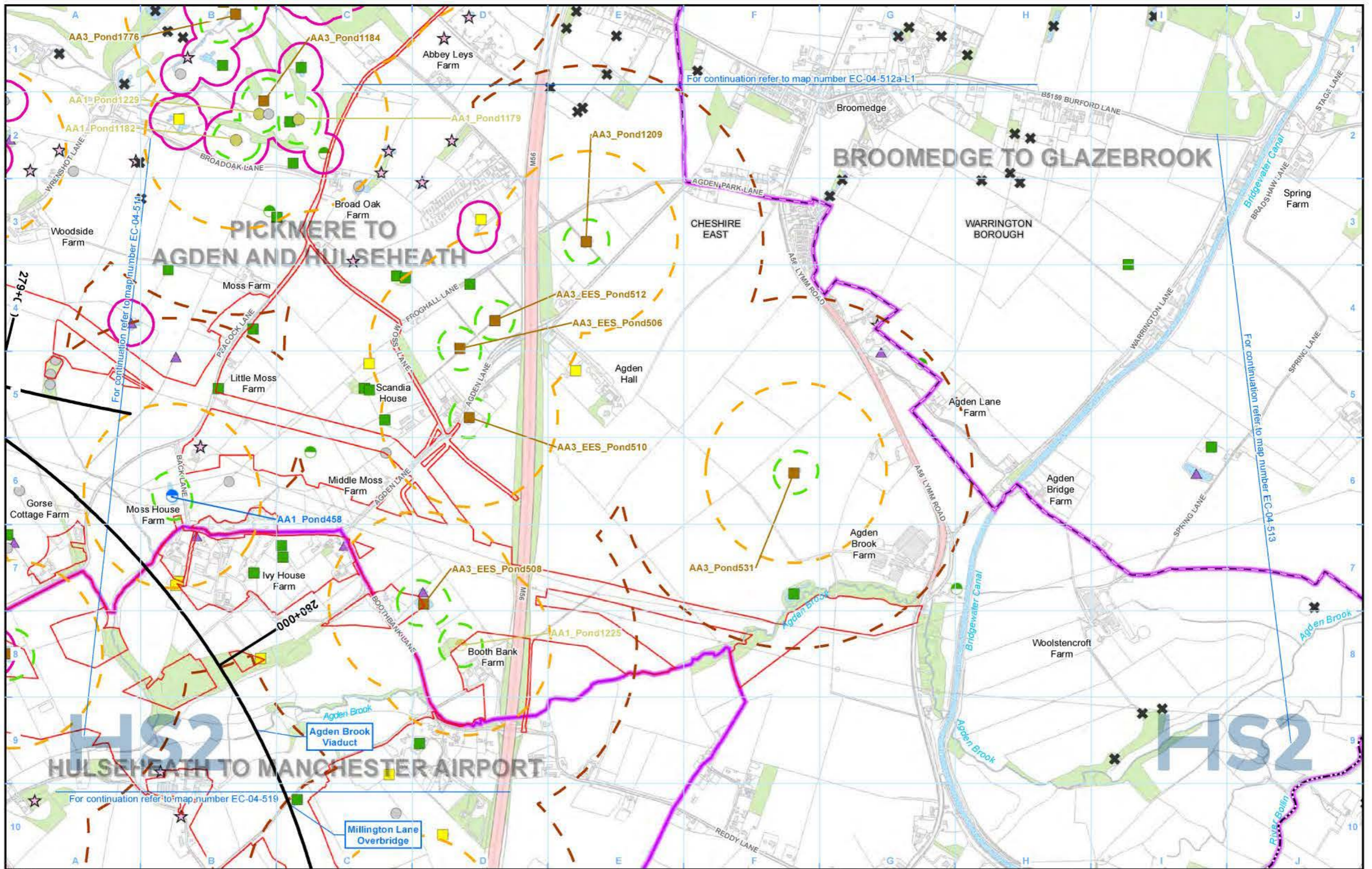
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Doc Number: 2PT24-MWJ-EV-MAP-M000-002920-P01

Date: 21/04/22

Scale at A3: 1:10,000





Legend	
	District/Borough boundary
	Watercourse
	Water body
	Woodland (not verified by survey)
	Area contains new survey data
	eDNA survey complete - result inconclusive
	eDNA survey complete - GCN assumed absent
	GCN present (6 visits) - small population (1 - 10 adults)
	GCN present (less than 6 visits) - small population (1 - 10 adults)
	GCN confirmed present - no size class determined
	Survey complete, GCN assumed absent
	Survey incomplete, no GCN found
	Scoped in - Habitat Suitability Index (HSI)/walkover only
	50m radius from all water bodies where presence of GCN is confirmed
	250m radius from all water bodies where presence of GCN is confirmed
	500m radius from all water bodies where presence of GCN is confirmed
	Areas isolated by significant barriers to amphibian movement

Map Number	EC-04-512a
Map Name	Amphibians SES1 and AP1 ES
Community Area MA03: Pickmere to Agden and Hulseheath	

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Doc Number: 2PT24-MWJ-EV-MAP-M000-000960-P01

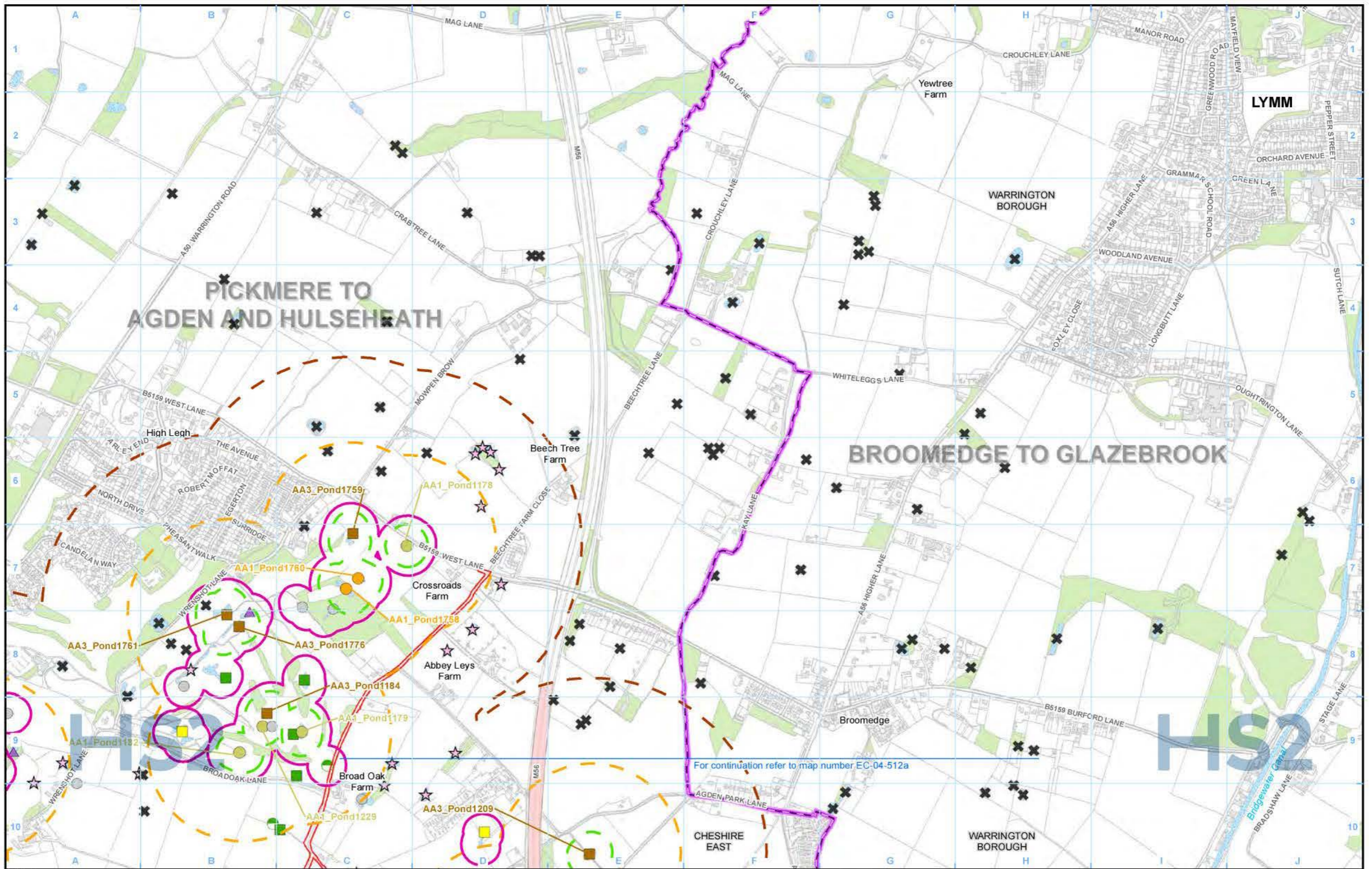
Date: 21/04/22

Scale at A3: 1:10,000

100 200 300 400  
metres

Note: GCN = Great Crested Newts





# PICKMERE TO AGDEN AND HULSEHEATH

# BROOMEDGE TO GLAZEBROOK

**Legend**

<ul style="list-style-type: none"> <li>Route in tunnel</li> <li>Route on surface</li> <li>Depot, station, headhouse or portal building</li> <li>Land potentially required during construction</li> <li>Community area boundary</li> <li>County boundary</li> </ul>	<ul style="list-style-type: none"> <li>District/Borough boundary</li> <li>Watercourse</li> <li>Water body</li> <li>Woodland (not verified by survey)</li> <li>Area contains new survey data</li> <li>eDNA survey complete - result inconclusive</li> </ul>	<ul style="list-style-type: none"> <li>eDNA survey complete - GCN present</li> <li>eDNA survey complete - GCN assumed absent</li> <li>GCN present (6 visits) - medium population (11 - 99 adults)</li> <li>GCN present (6 visits) - small population (1 - 10 adults)</li> <li>Survey complete, GCN assumed absent</li> <li>Survey incomplete, no GCN found</li> <li>Scoped in - Habitat Suitability Index (HSI)/walkover only</li> <li>Scoped in - no access permission</li> </ul>	<ul style="list-style-type: none"> <li>Scoped out - no survey required</li> <li>50m radius from all water bodies where presence of GCN is confirmed</li> <li>250m radius from all water bodies where presence of GCN is confirmed</li> <li>500m radius from all water bodies where presence of GCN is confirmed</li> <li>Areas isolated by significant barriers to amphibian movement</li> </ul>
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Note: GCN = Great Crested Newts

Map Number: EC-04-512a-L1

Map Name: Amphibians SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

For continuation refer to map number EC-04-512a

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Doc Number: 2PT24-MWJ-EV-MAP-M000-002979-P01

Date: 21/04/22

Scale at A3: 1:10,000

Scale bar: 0 100 200 300 400 metres



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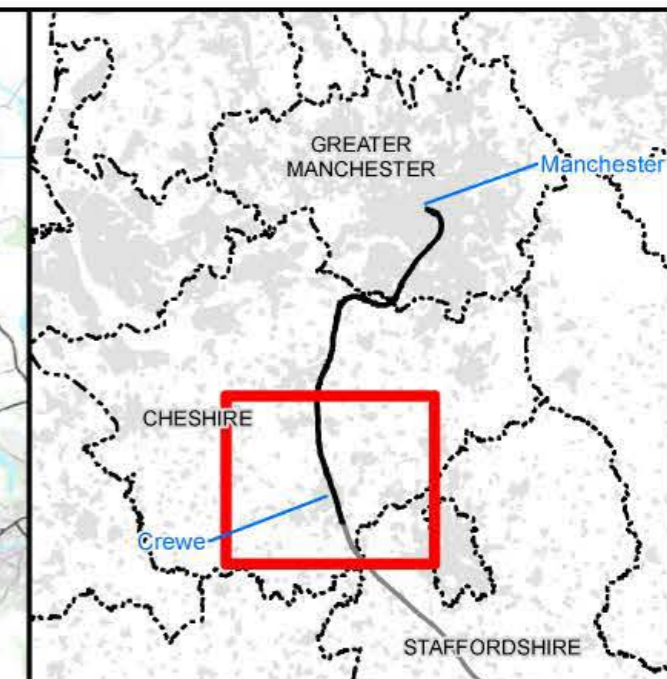
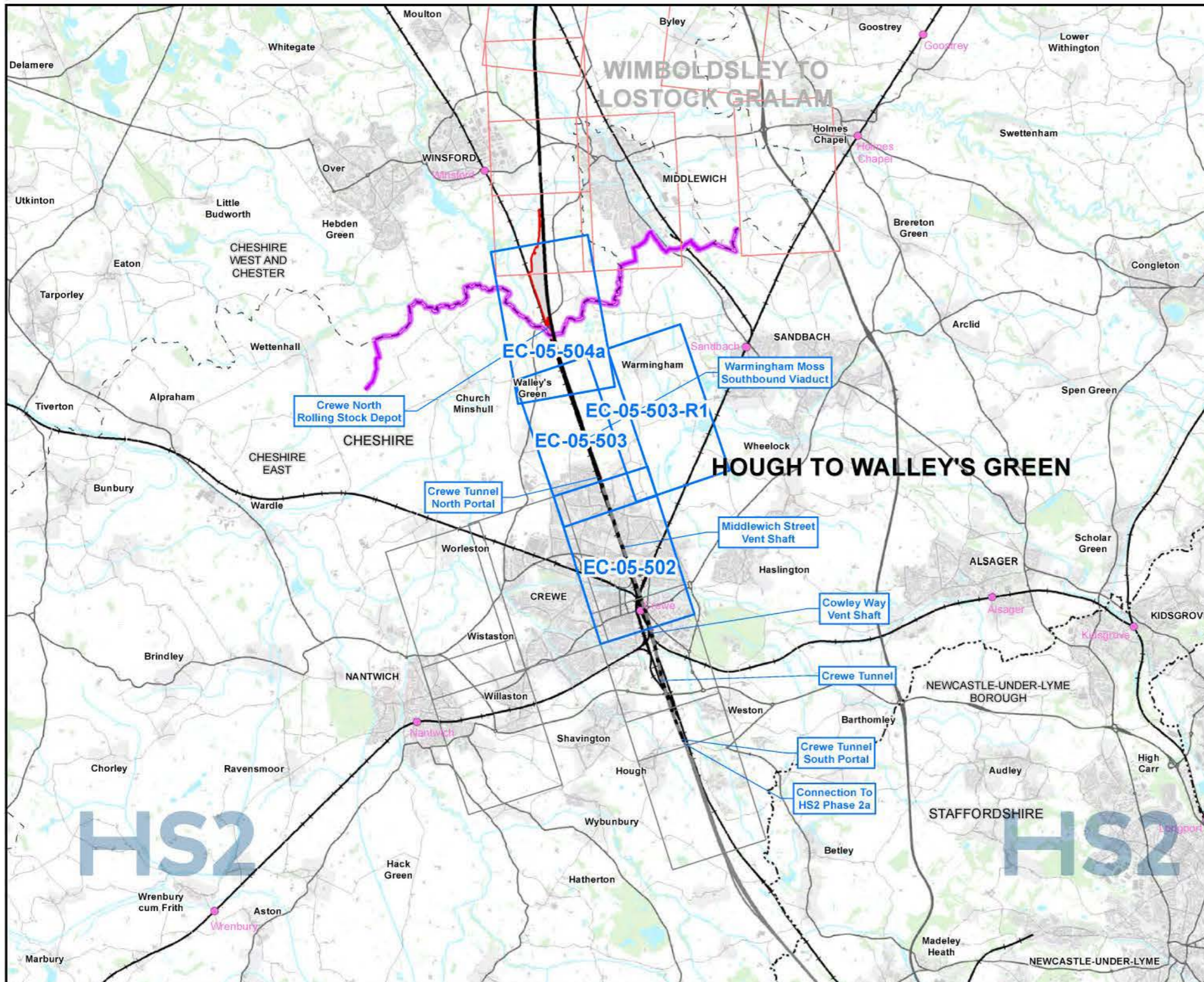


## **High Speed Rail (Crewe – Manchester)**

**Background information and data accompanying  
Supplementary Environmental Statement 1 and  
Additional Provision 1 Environmental Statement**

EC-05 – Bat - Roost





**Map Series Information:**

This map series shows results of field surveys conducted to investigate the potential for trees and buildings/structures to support roosting bats. The maps show location of roosts confirmed by field survey and features identified as having a high or moderate potential to support roosting bats.

- 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 area with no amendment
  - Map sheets not included in this community area

Map Number: EC-05-INDEX-MA01

Map Name: Index Map of:  
Bat - Roost  
SES1 and AP1 ES  
Community Area MA01:  
Hough to Walley's Green

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Registered office: Two Simehill, Snow Hill, Queenway, Birmingham B4 6QA.

Scale at A3: 1:100,000

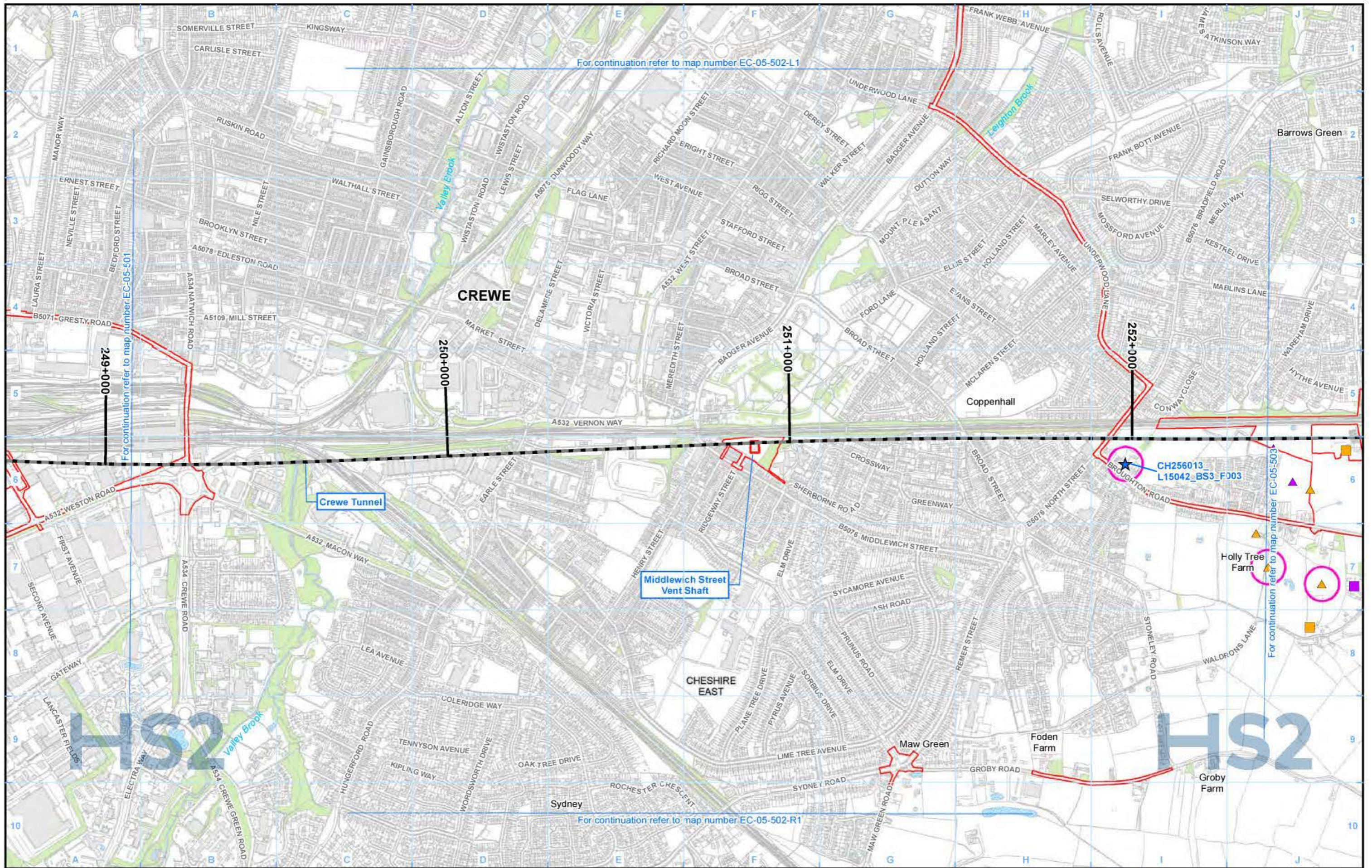
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Doc Number: 2PT24-MWJ-EV-MAP-M000-001028-P01

Date: 21/04/22

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
	Watercourse
	Water body
	Woodland (verified by survey)
	Area contains new survey data

Confirmed bat roost - trees:		Confirmed bat roost - building:		Potential to support roosting bats - buildings:	
	Hibernation roost		Hibernation roost		High
	Maternity roost		Maternity roost		Moderate
	Other roost		Other roost		High
	Multiple roost types		Multiple roost types		Moderate

Map Number	EC-05-502
Map Name	Bat - Roost SES1 and AP1 ES
	Community Area MA01: Hough to Walley's Green

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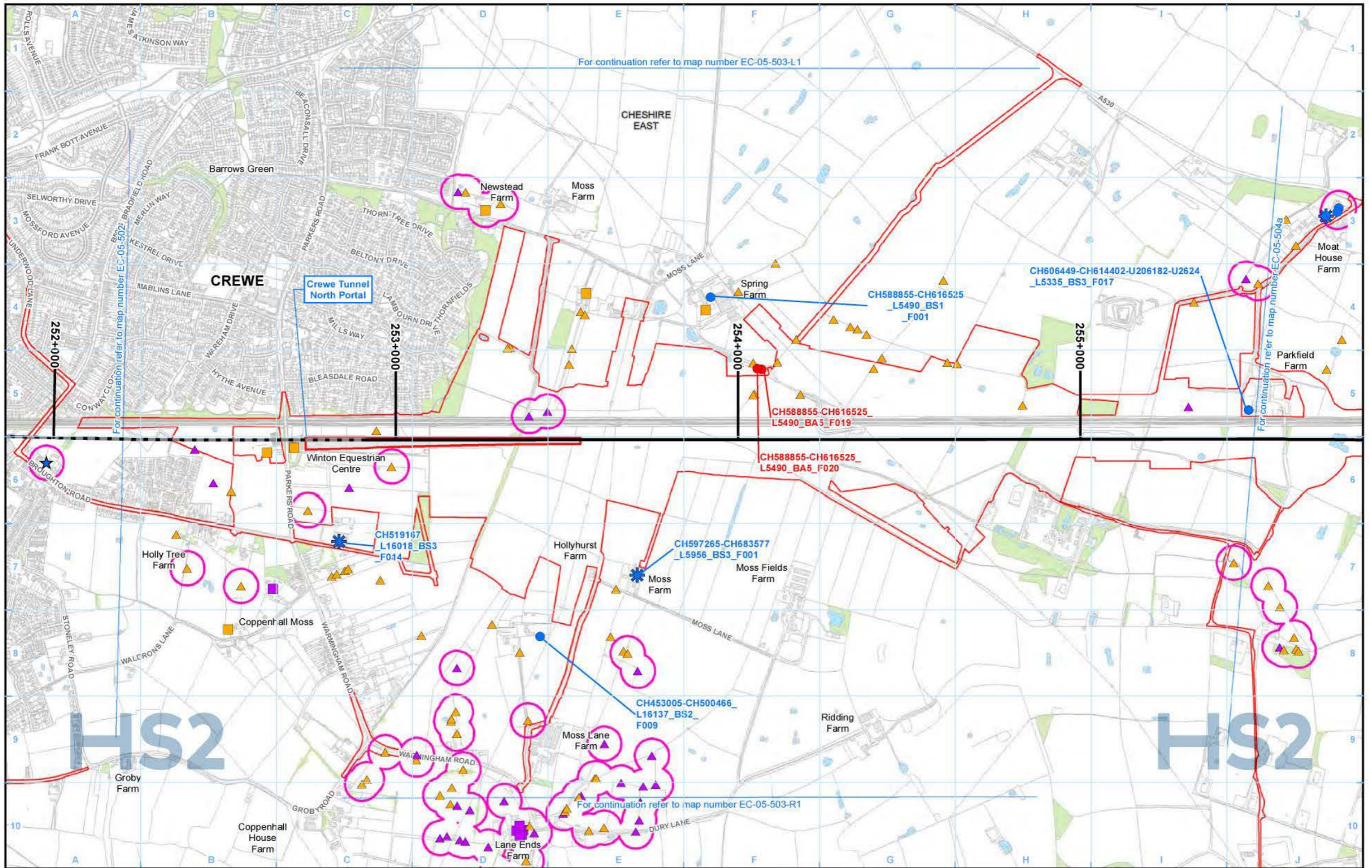
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Doc Number: 2PT24-MWJ-EV-MAP-M000-000994-P01

Scale at A3: 1:10,000

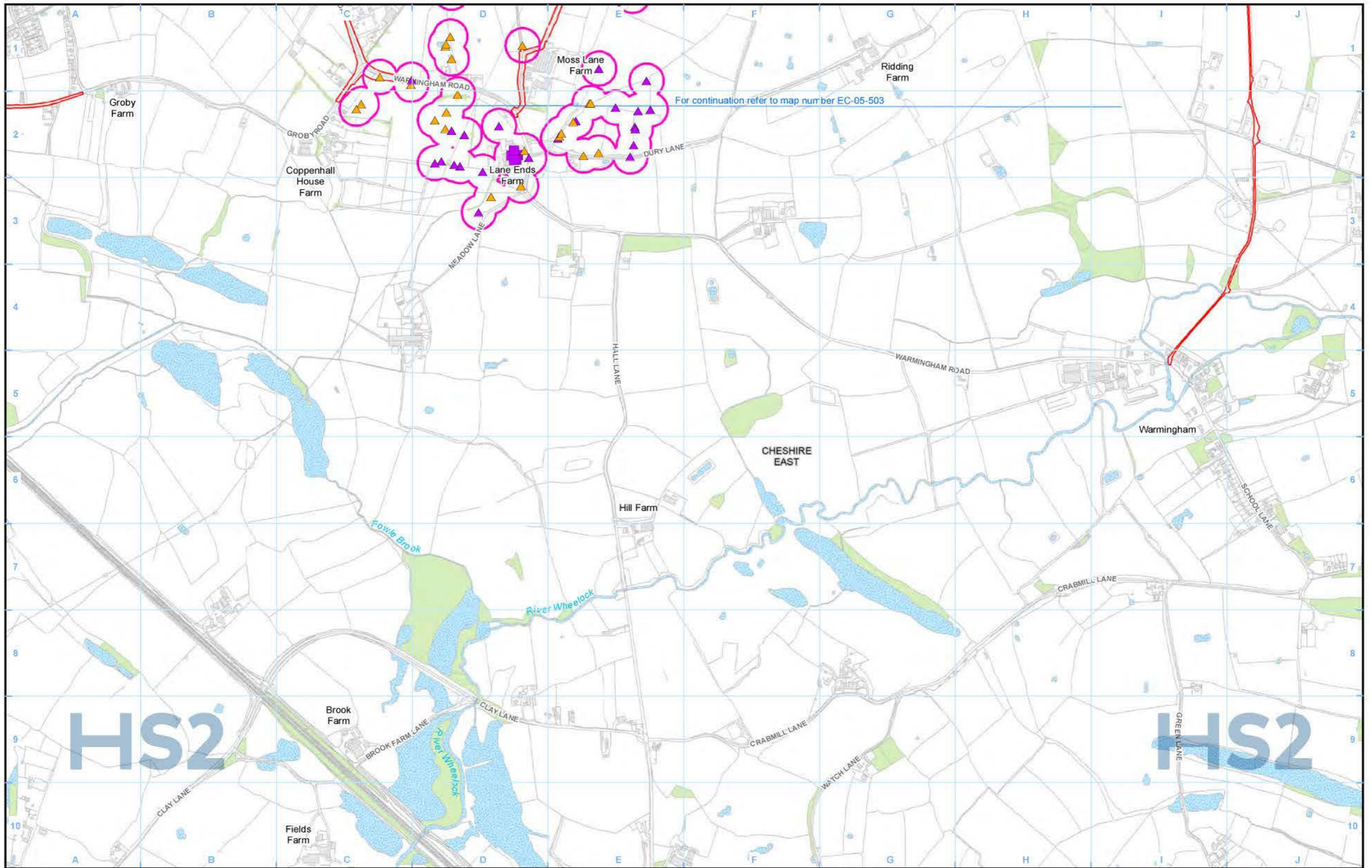
Date: 21/04/22





<b>Legend</b> <ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> <li> District/Borough boundary</li> <li> Watercourse</li> <li> Water body</li> <li> Woodland (verified by survey)</li> <li> Area contains new survey data</li> </ul>		<b>Confirmed bat roost - trees:</b> <ul style="list-style-type: none"> <li> Hibernation roost</li> <li> Maternity roost</li> <li> Other roost</li> <li> Multiple roost types</li> </ul>		<b>Confirmed bat roost - building:</b> <ul style="list-style-type: none"> <li> Hibernation roost</li> <li> Maternity roost</li> <li> Other roost</li> <li> Multiple roost types</li> </ul>		<b>Potential to support roosting bats - buildings:</b> <ul style="list-style-type: none"> <li> High</li> <li> Moderate</li> </ul>		<b>Potential to support roosting bats - trees:</b> <ul style="list-style-type: none"> <li> High</li> <li> Moderate</li> </ul>	
<b>Map Number:</b> EC-05-503				<b>Map Name:</b> Bat - Roost SES1 and AP1 ES		<small>Registered in England. Registration number: 06791086. Registered office: Two Smithills, Snow Hill, Queensway, Birmingham B4 6GA.</small>		<b>Scale at A3:</b> 1:10,000	
<b>Community Area MA01:</b> Hough to Walley's Green		<small>© Crown copyright and database rights 2021 OS 100049190</small>		<small>Doc Number: 2PT24-MWJ-EV-MAP-M000-00095-P01</small>		<small>Date: 21/04/22</small>			





For continuation refer to map number EC-05-503

Legend	
	Watercourse
	Water body
	Woodland (verified by survey)
	Area contains new survey data

Confirmed bat roost - trees:		Confirmed bat roost - building:		Potential to support roosting bats - buildings:	
	Hibernation roost		Hibernation roost		High
	Maternity roost		Maternity roost		Moderate
	Other roost		Other roost		High
	Multiple roost types		Multiple roost types		Moderate

Map Number	EC-05-503-R1
Map Name	Bat - Roost SES1 and AP1 ES
	Community Area MA01: Hough to Walley's Green

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Registered office: Two Simehill, Snow Hill Queensway,  
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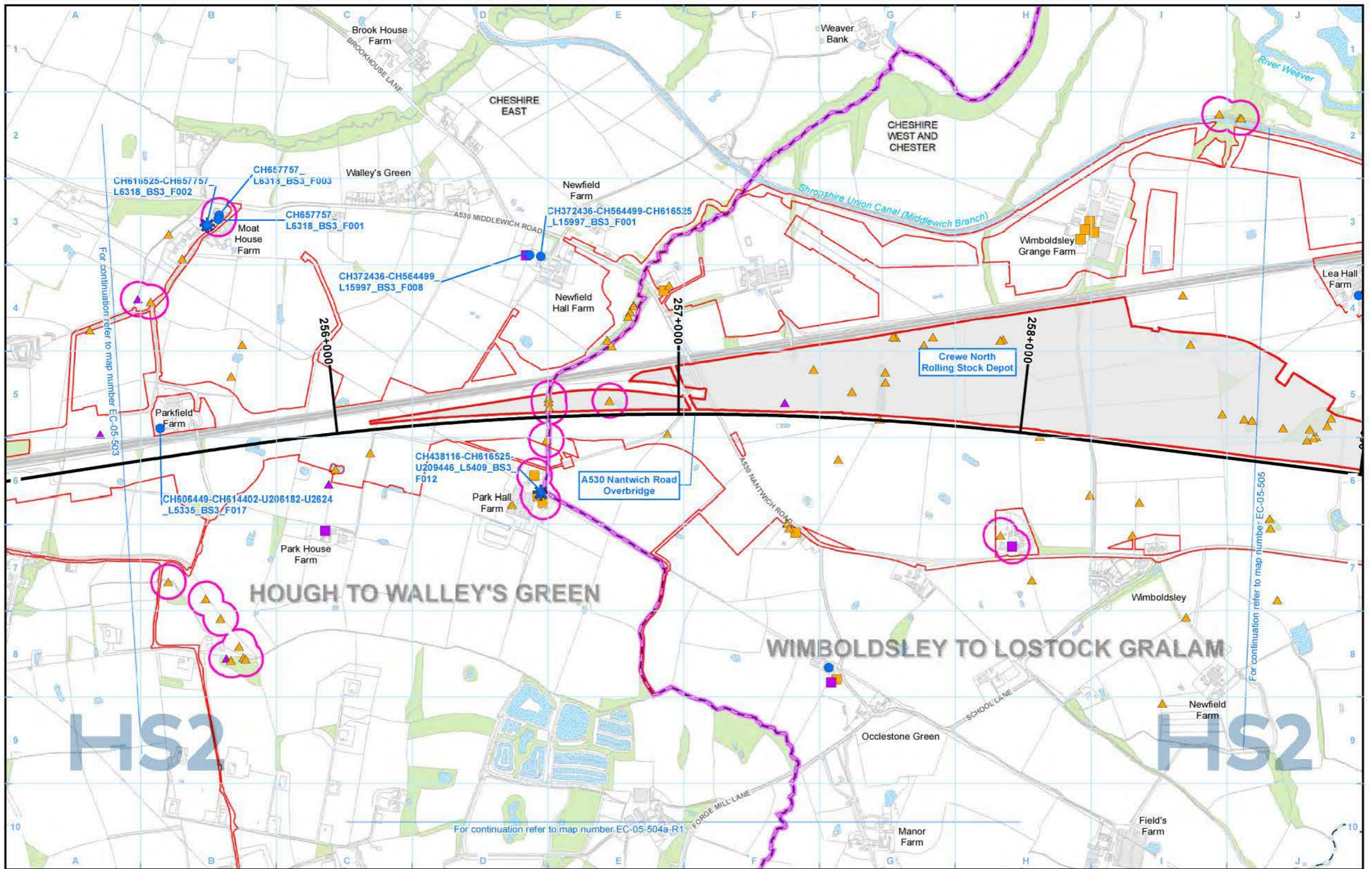
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Scale at A3: 1:10,000

Meters

Date: 21/04/22



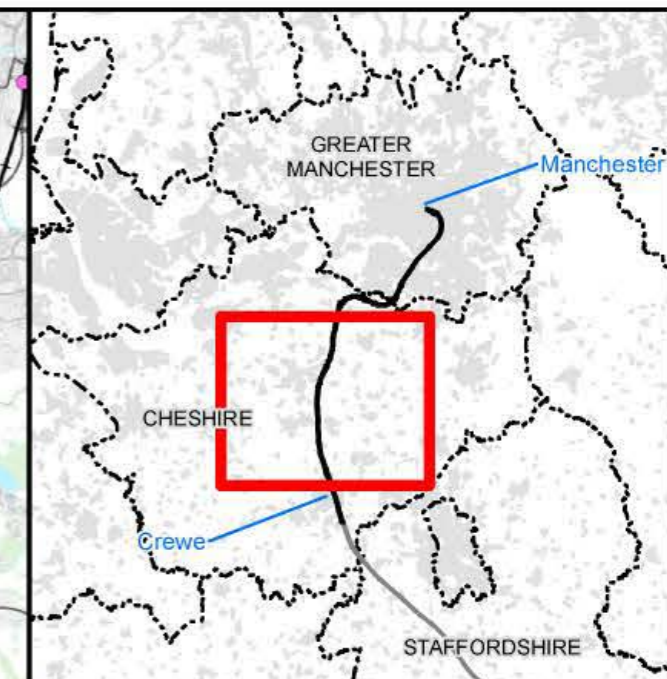
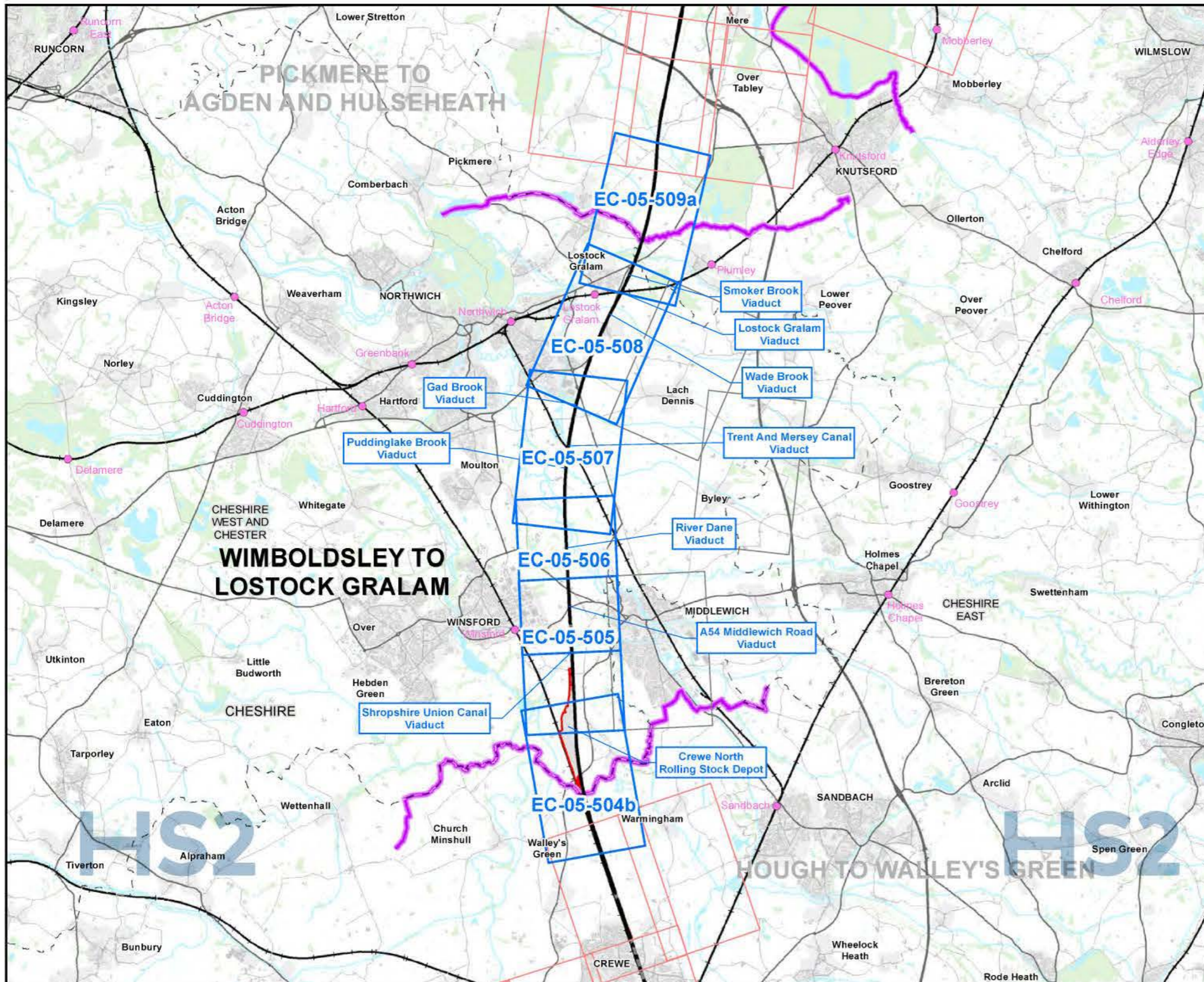


<b>Legend</b> Route in tunnel Route on surface Depot, station, headhouse or portal building Land potentially required during construction Community area boundary County boundary District/Borough boundary		Watercourse Water body Woodland (verified by survey) Area contains new survey data		<b>Confirmed bat roost - trees:</b> ◆ Hibernation roost ★ Maternity roost ● Other roost * Multiple roost types		<b>Confirmed bat roost - building:</b> ◆ Hibernation roost ★ Maternity roost ● Other roost * Multiple roost types		<b>Potential to support roosting bats - buildings:</b> ■ High ■ Moderate <b>Potential to support roosting bats - trees:</b> ▲ High ▲ Moderate	
<b>Map Number:</b> EC-05-504a <b>Map Name:</b> Bat - Roost SES1 and AP1 ES Community Area MA01: Hough to Walley's Green		<b>HS2</b> <small>Registered in England. Registration number: 00791086          Registered office: Two Smithills, Snow Hill, Queensway, Birmingham B4 6QA.          © Crown copyright and database rights 2021          OS 100049190</small>		Scale at A3: 1:10,000 		<small>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.</small> 		<b>Doc Number:</b> 2PT24-MWJ-EV-MAP-M000-000996-P01 <b>Date:</b> 21/04/22	



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**Map Series Information:**

This map series shows results of field surveys conducted to investigate the potential for trees and buildings/structures to support roosting bats. The maps show location of roosts confirmed by field survey and features identified as having a high or moderate potential to support roosting bats.

**Main Map Legend**

Route in tunnel	Map sheets included in this community area
Route on surface	Map sheets included in this community area 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	EC-05-INDEX-MA02
Map Name	Index Map of: Bat - Roost SES1 and AP1 ES Community Area MA02: Wimboldsley to Lostock Gralam

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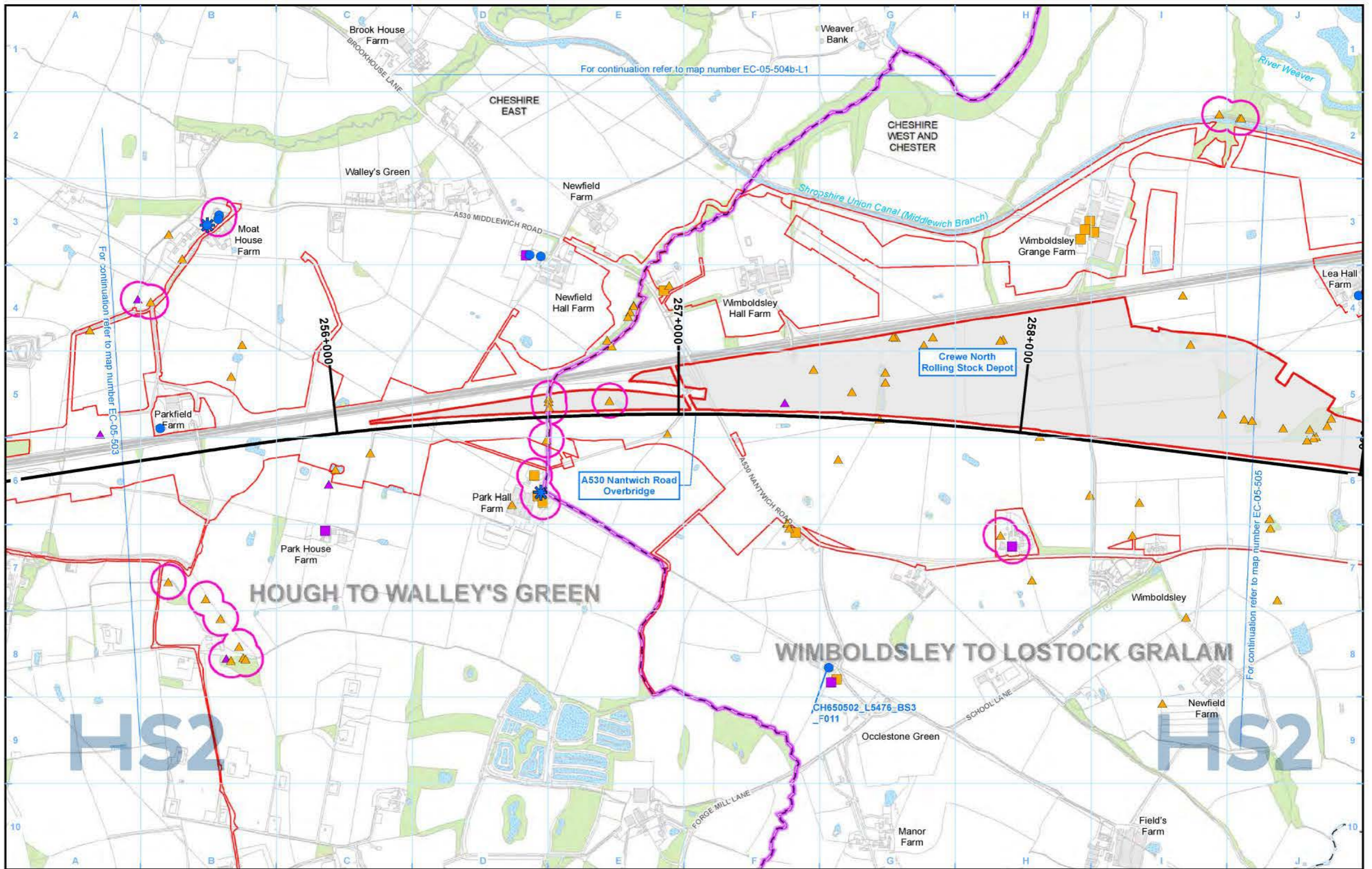
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Doc Number: 2PT24-MWJ-EV-MAP-M000-001029-P01

Date: 21/04/22

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





Legend		Confirmed bat roost - trees:		Confirmed bat roost - building:		Potential to support roosting bats - buildings:		Potential to support roosting bats - trees:	
	Route in tunnel		Hibernation roost		Hibernation roost		High		High
	Route on surface		Maternity roost		Maternity roost		Moderate		Moderate
	Depot, station, headhouse or portal building		Other roost		Other roost		High		Moderate
	Land potentially required during construction		Multiple roost types		Multiple roost types				
	Community area boundary								
	County boundary								
	District/Borough boundary								
	Watercourse								
	Water body								
	Woodland (verified by survey)								
	Area contains new survey data								

Map Number	EC-05-504b
Map Name	Bat - Roost SES1 and AP1 ES
Community Area MA02:	Wimboldsley to Lostock Gralam

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Doc Number: 2PT24-MWJ-EV-MAP-M000-000997-P01

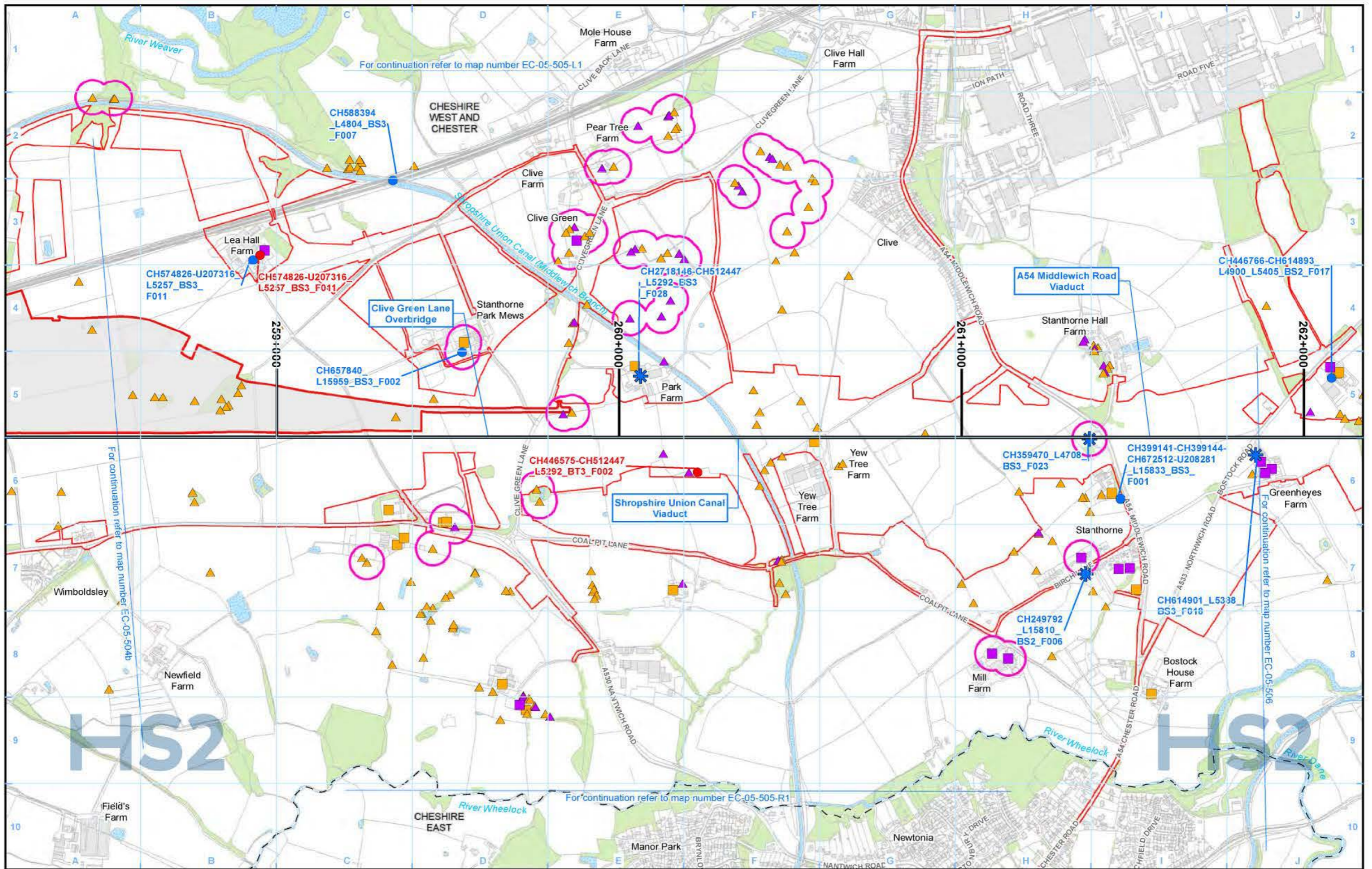
Date: 21/04/22

Scale at A3: 1:10,000

100 200 300 400  
Metres

North Arrow





**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
- Water body
- Woodland (verified by survey)
- Area contains new survey data

**Confirmed bat roost - trees:**

- Hibernation roost
- Maternity roost
- Other roost
- Multiple roost types

**Confirmed bat roost - building:**

- Hibernation roost
- Maternity roost
- Other roost
- Multiple roost types

**Potential to support roosting bats - buildings:**

- High
- Moderate

**Potential to support roosting bats - trees:**

- High
- Moderate

Map Number: EC-05-505

Map Name: Bat - Roost SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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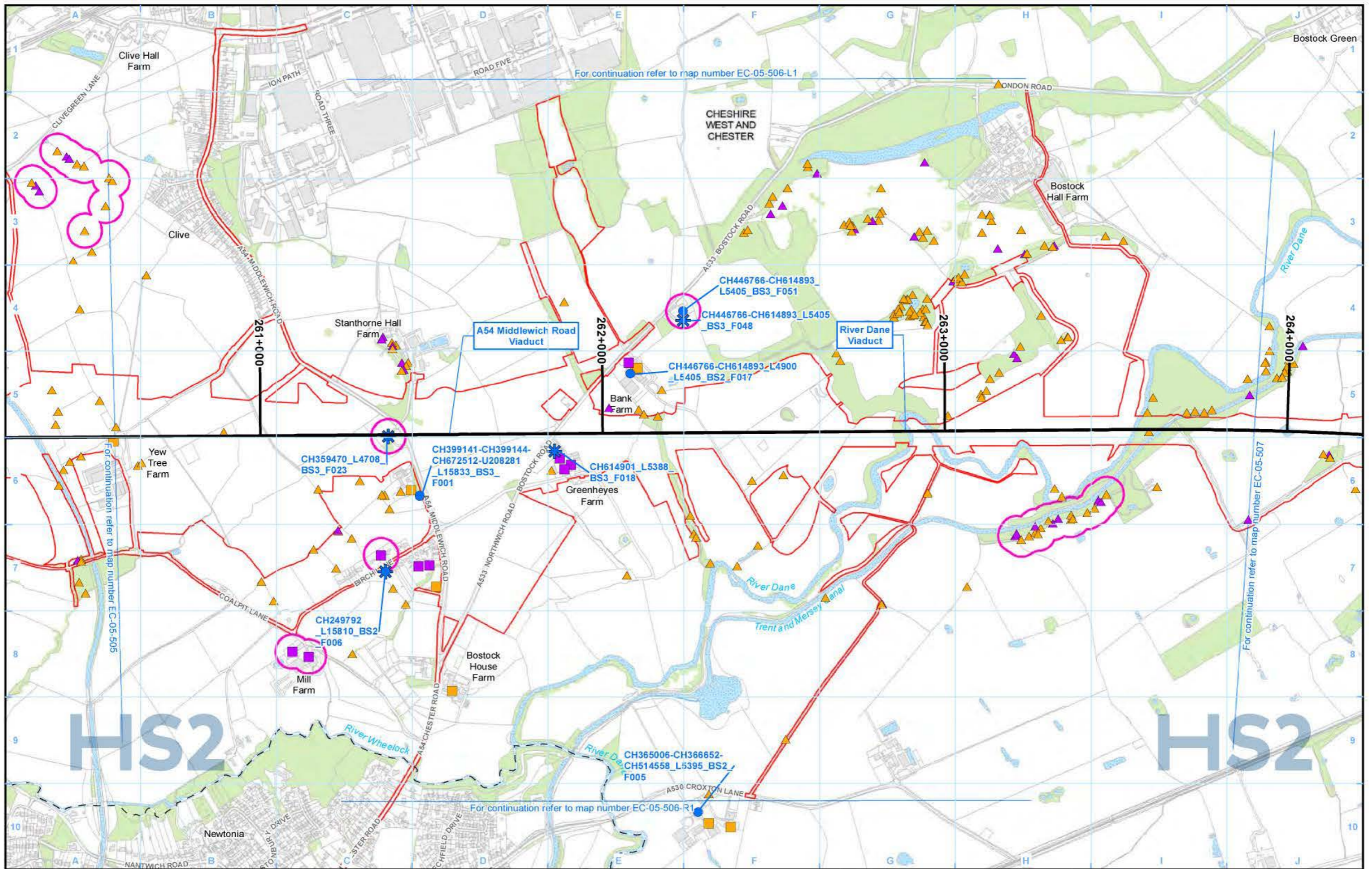
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Doc Number: 2PT24-MWJ-EV-MAP-M000-000998-P01

Date: 21/04/22

Scale at A3: 1:10,000





**Legend**

	Route in tunnel		Watercourse
	Route on surface		Water body
	Depot, station, headhouse or portal building		Woodland (verified by survey)
	Land potentially required during construction		Area contains new survey data
	Community area boundary		
	County boundary		
	District/Borough boundary		

	Confirmed bat roost - trees:		Confirmed bat roost - building:
	Maternity roost		Maternity roost
	Other roost		Other roost
	Multiple roost types		Multiple roost types

Map Number	EC-05-506
Map Name	Bat - Roost SES1 and AP1 ES
	Community Area MA02: Wimboldsley to Lostock Gralam

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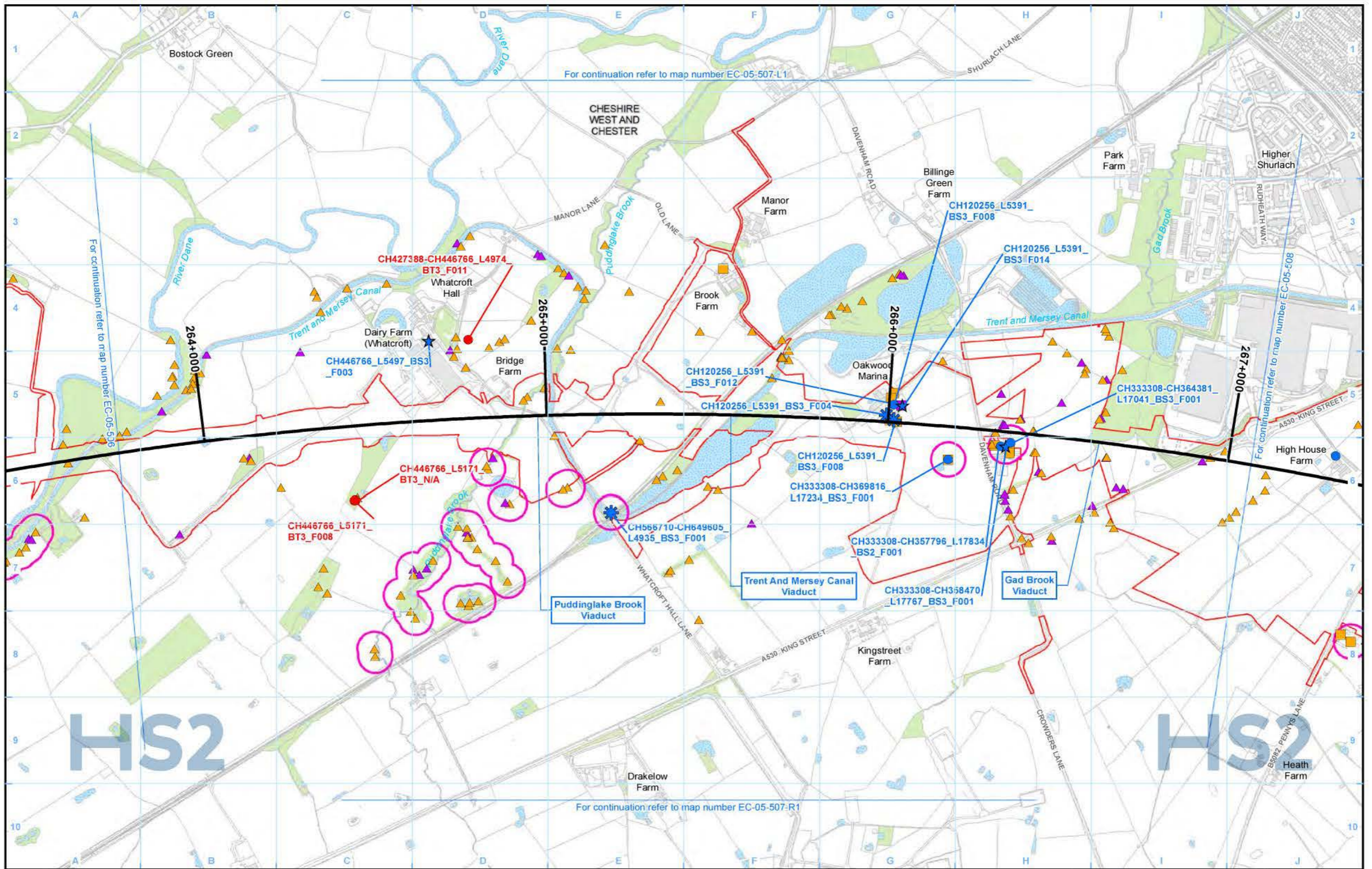
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Scale at A3: 1:10,000

Doc Number: 2PT24-MWJ-EV-MAP-M000-000999-P01

Date: 21/04/22





**Legend**

Route in tunnel	Watercourse
Depot, station, headhouse or portal building	Water body
Land potentially required during construction	Woodland (verified by survey)
Community area boundary	Area contains new survey data
County boundary	
District/Borough boundary	

<b>Confirmed bat roost - trees:</b>	<b>Confirmed bat roost - building:</b>	<b>Potential to support roosting bats - buildings:</b>
Hibernation roost	Hibernation roost	High
Maternity roost	Maternity roost	Moderate
Other roost	Other roost	<b>Potential to support roosting bats - trees:</b>
Multiple roost types	Multiple roost types	High
		Moderate

Map Number	EC-05-507
Map Name	Bat - Roost SES1 and AP1 ES
	Community Area MA02: Wimboldsley to Lostock Gralam

**HS2**

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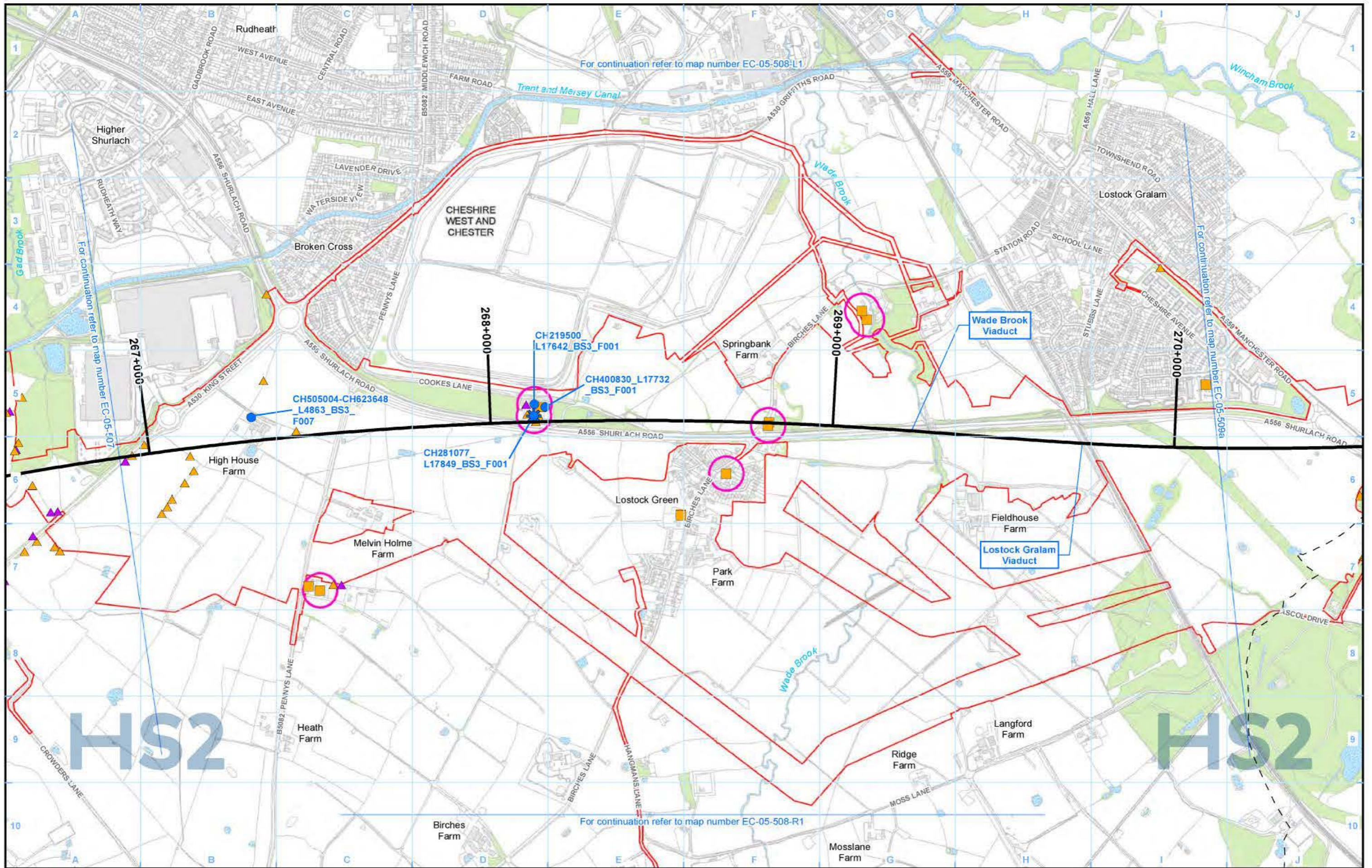
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Doc Number: 2PT24-MWJ-EV-MAP-M000-001000-P01

Scale at A3: 1:10,000

Date: 21/04/22





**Legend**

		<b>Confirmed bat roost - trees:</b>		<b>Potential to support roosting bats - buildings:</b>
				<b>Potential to support roosting bats - trees:</b>

Map Number	EC-05-508
Map Name	Bat - Roost SES1 and AP1 ES
Community Area MA02: Wimboldsley to Lostock Gralam	

**HS2**

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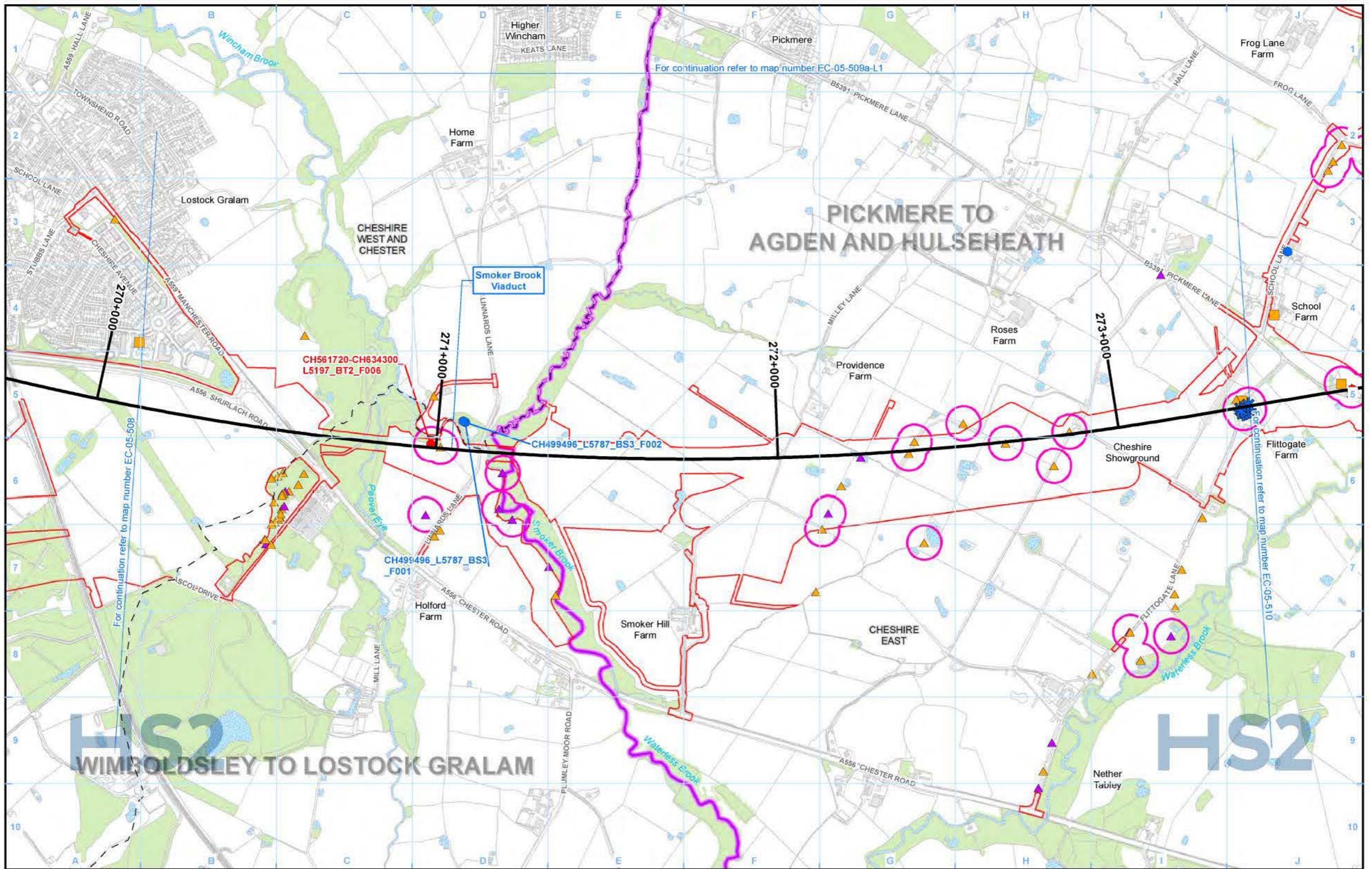
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Doc Number: 2PT24-MWJ-EV-MAP-M000-001001-P01

Scale at A3: 1:10,000

Date: 21/04/22





**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
- Water body
- Woodland (verified by survey)
- Area contains new survey data

**Confirmed bat roost - trees:**

- Hibernation roost
- Maternity roost
- Other roost
- Multiple roost types

**Confirmed bat roost - building:**

- Hibernation roost
- Maternity roost
- Other roost
- Multiple roost types

**Potential to support roosting bats - buildings:**

- High
- Moderate

**Potential to support roosting bats - trees:**

- High
- Moderate

Map Number: EC-05-509a

Map Name: Bat - Roost SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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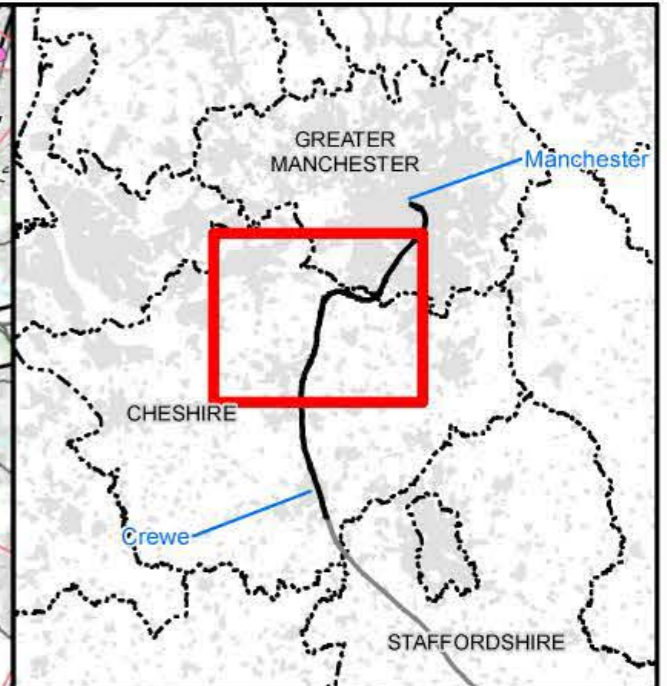
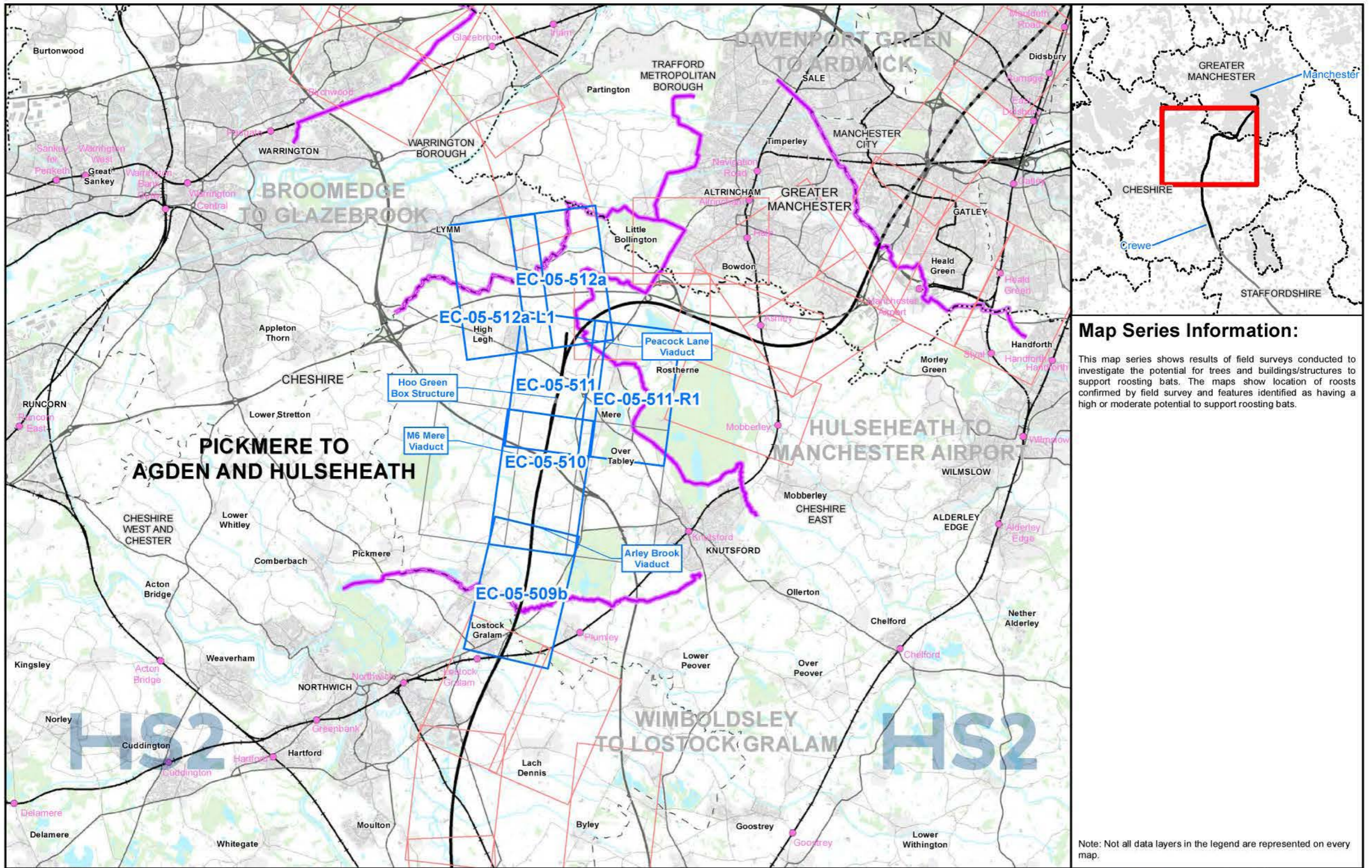
Scale at A3: 1:10,000

Date: 21/04/22



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**Map Series Information:**

This map series shows results of field surveys conducted to investigate the potential for trees and buildings/structures to support roosting bats. The maps show location of roosts confirmed by field survey and features identified as having a high or moderate potential to support roosting bats.

- 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 area with no amendment
  - Map sheets not included in this community area

Map Number: EC-05-INDEX-MA03

Map Name: Index Map of:  
Bat - Roost  
SES1 and AP1 ES  
Community Area MA03:  
Pickmere to Agden and Hulseheath

**HS2**

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Registered office: Two St Nicholas, Snow Hill, Queenway, Birmingham B4 6GA.

Scale at A3: 1:100,000

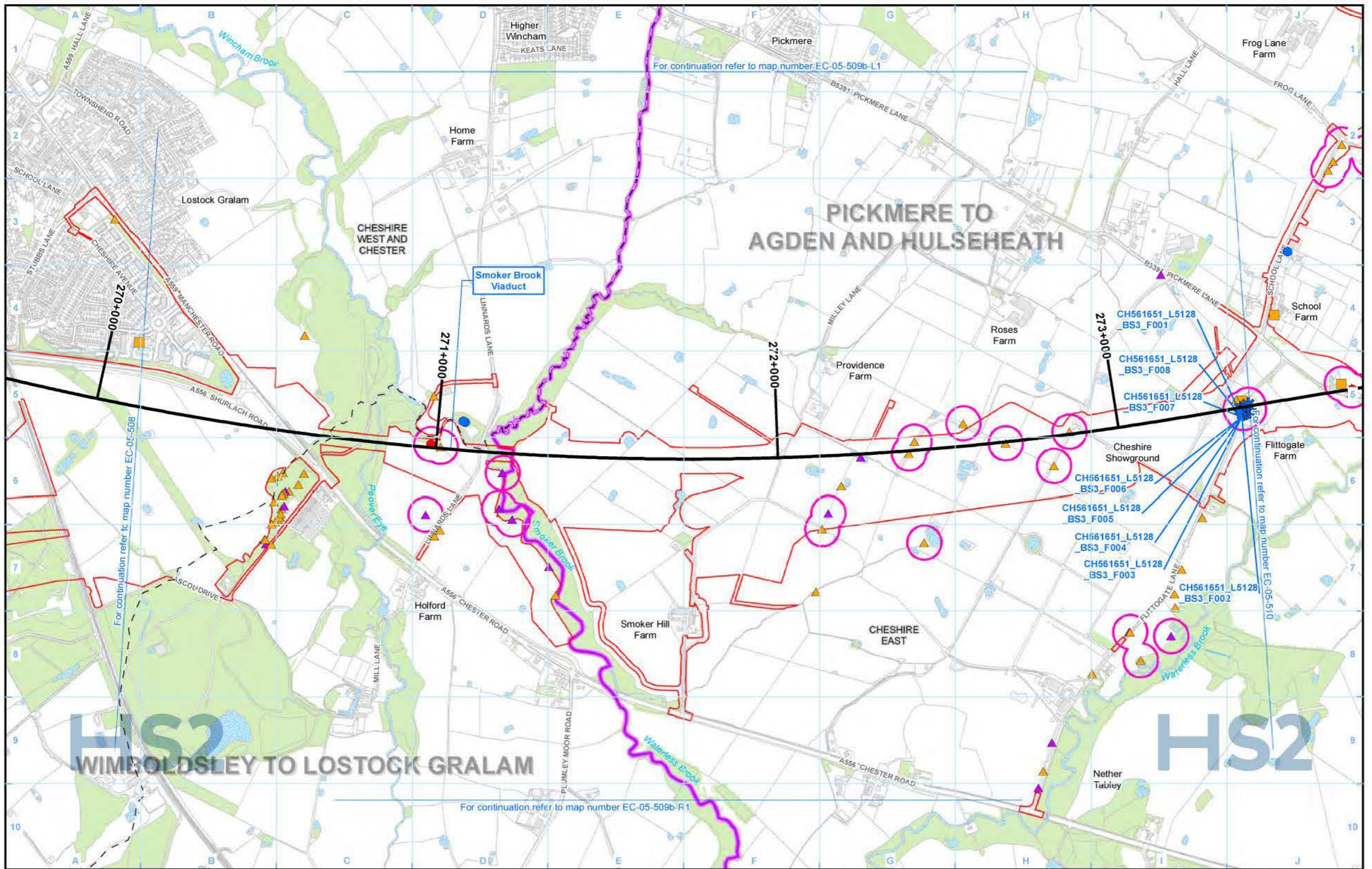
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Doc Number: 2PT24-MWJ-EV-MAP-M000-001030-P01

Date: 21/04/22

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





**Legend**

<ul style="list-style-type: none"> <li>Route in tunnel</li> <li>Route on surface</li> <li>Depot, station, headhouse or portal building</li> <li>Land potentially required during construction</li> <li>Community area boundary</li> <li>County boundary</li> <li>District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li>Watercourse</li> <li>Water body</li> <li>Woodland (verified by survey)</li> <li>Area contains new survey data</li> </ul>	<p><b>Confirmed bat roost - trees:</b></p> <ul style="list-style-type: none"> <li>Hibernation roost</li> <li>Maternity roost</li> <li>Other roost</li> <li>Multiple roost types</li> </ul>	<p><b>Confirmed bat roost - building:</b></p> <ul style="list-style-type: none"> <li>Hibernation roost</li> <li>Maternity roost</li> <li>Other roost</li> <li>Multiple roost types</li> </ul>	<p><b>Potential to support roosting bats - buildings:</b></p> <ul style="list-style-type: none"> <li>High</li> <li>Moderate</li> </ul> <p><b>Potential to support roosting bats - trees:</b></p> <ul style="list-style-type: none"> <li>High</li> <li>Moderate</li> </ul>
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Map Number: EC-05-509b

Map Name: Bat - Roost SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

**HS2**

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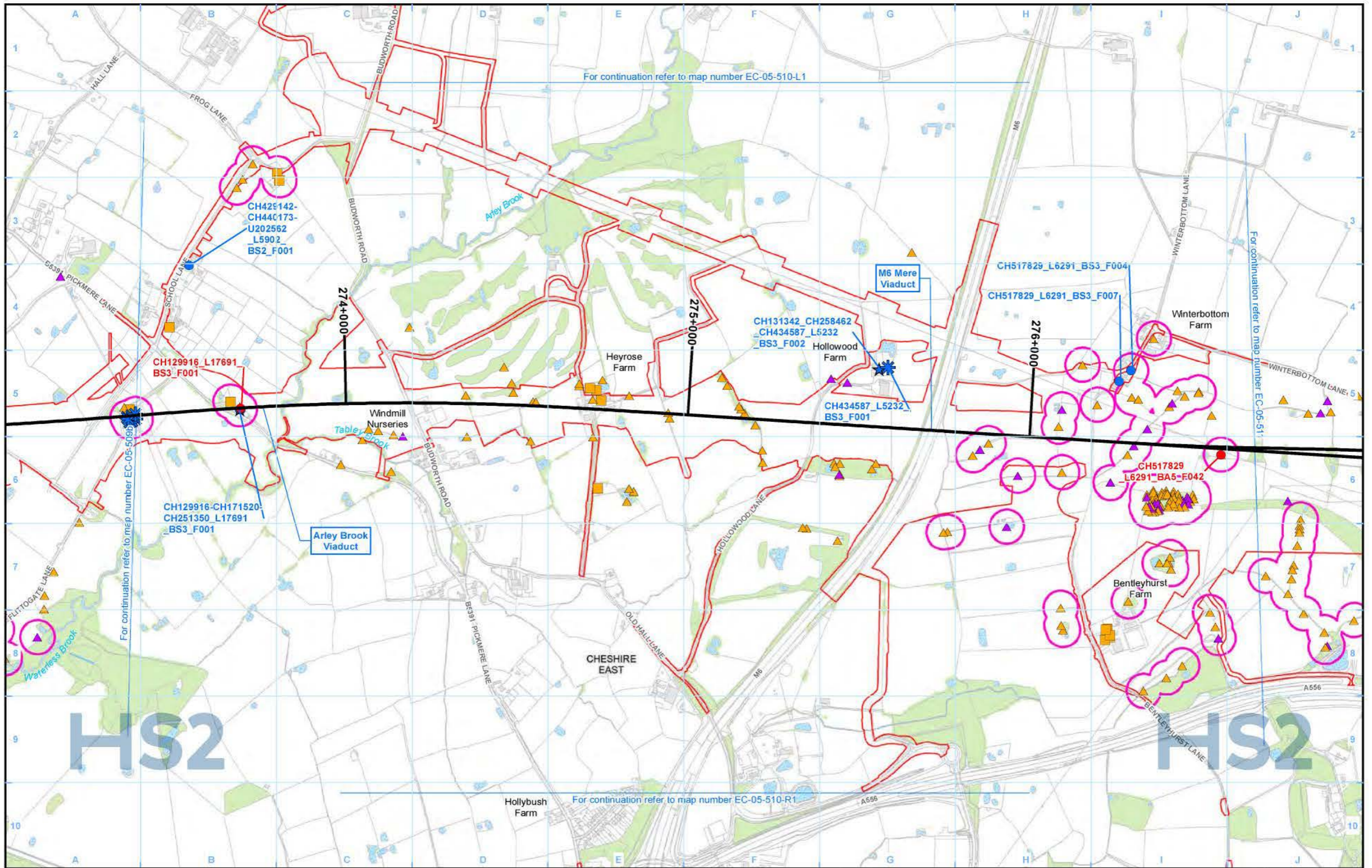
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Doc Number: 2PT24-MWJ-EV-MAP-M000-001003-P01

Date: 21/04/22

Scale at A3: 1:10,000





For continuation refer to map number EC-05-510-L1

For continuation refer to map number EC-05-511

For continuation refer to map number EC-05-510-R1

- 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
  - Water body
  - Woodland (verified by survey)
  - Area contains new survey data

- Confirmed bat roost - trees:**
- Hibernation roost
  - Maternity roost
  - Other roost
  - Multiple roost types
- Confirmed bat roost - building:**
- Hibernation roost
  - Maternity roost
  - Other roost
  - Multiple roost types
- Potential to support roosting bats - buildings:**
- High
  - Moderate
- Potential to support roosting bats - trees:**
- High
  - Moderate

Map Number: EC-05-510

Map Name: Bat - Roost SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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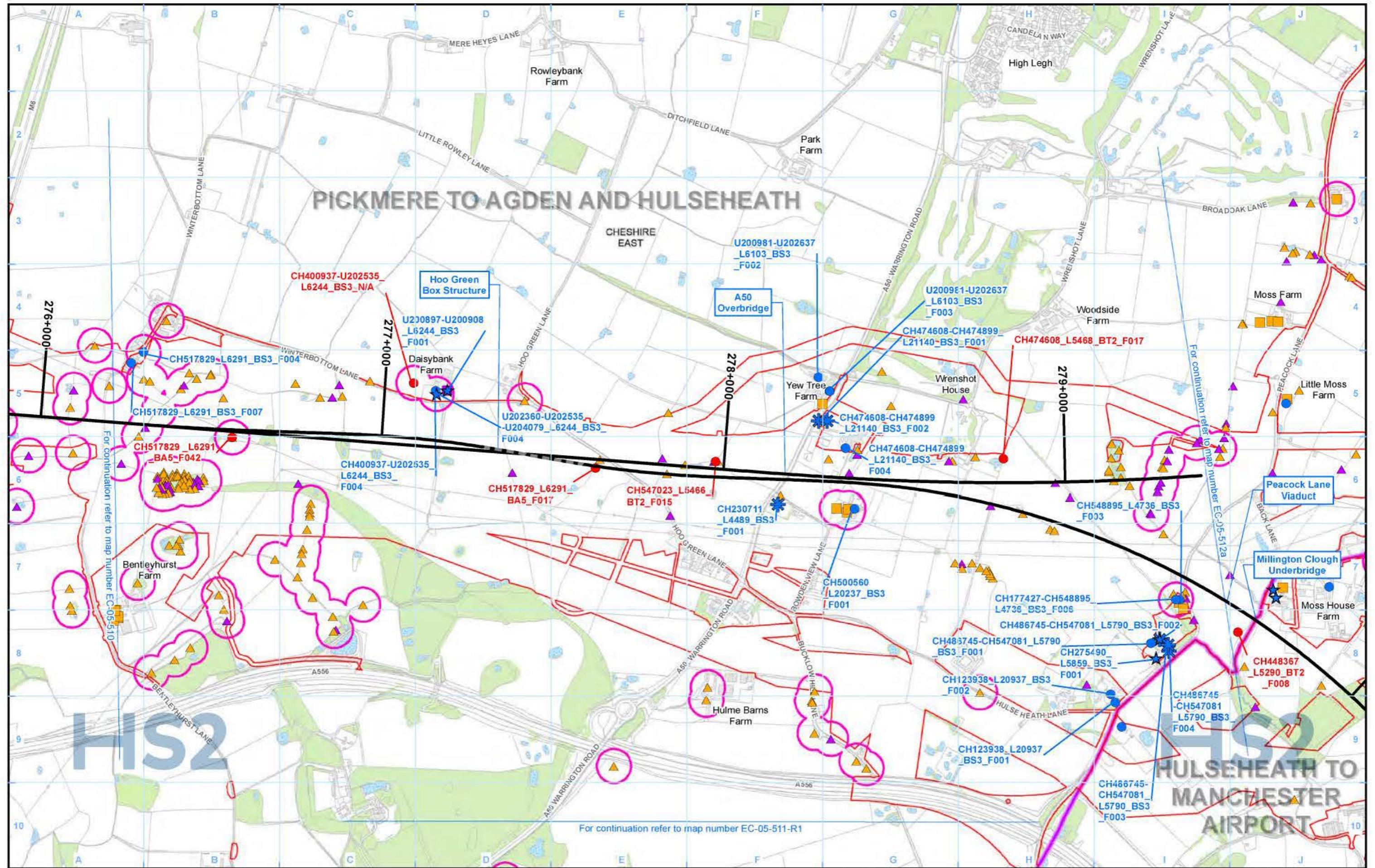
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Doc Number: 2PT24-MWJ-EV-MAP-M000-001004-P01

Scale at A3: 1:10,000

Date: 21/04/22





**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
- Water body
- Woodland (verified by survey)
- Area contains new survey data

**Confirmed bat roost - trees:**

- Hibernation roost
- Maternity roost
- Other roost
- Multiple roost types

**Confirmed bat roost - building:**

- Hibernation roost
- Maternity roost
- Other roost
- Multiple roost types

**Potential to support roosting bats - buildings:**

- High
- Moderate

**Potential to support roosting bats - trees:**

- High
- Moderate

Map Number: EC-05-511

Map Name: Bat - Roost SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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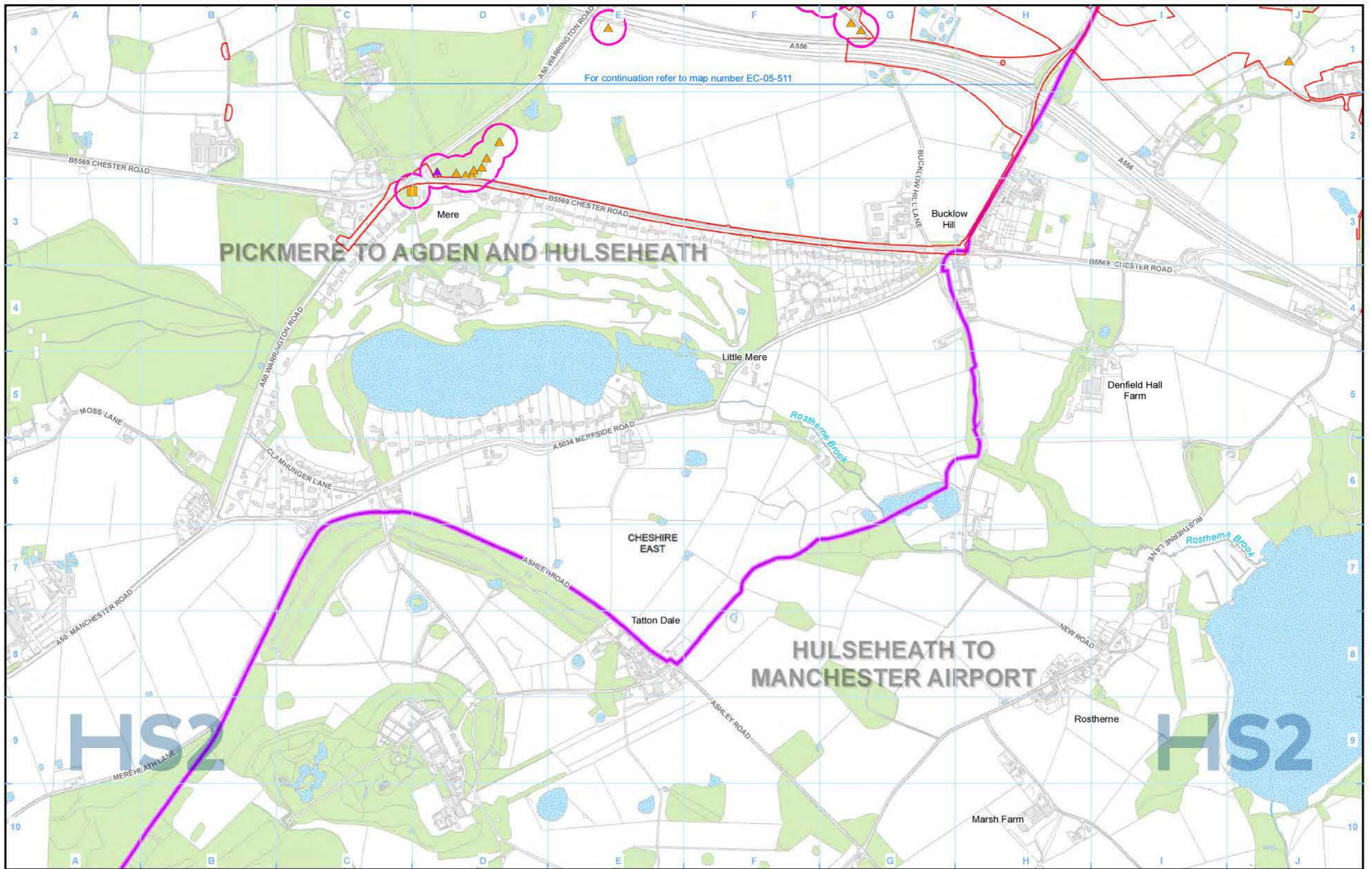
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Date: 21/04/22

Scale at A3: 1:10,000

100 200 300 400 Metres





For continuation refer to map number EC-05-511

**PICKMERE TO AGDEN AND HULSEHEATH**

**HULSEHEATH TO MANCHESTER AIRPORT**

**Legend**

	Route in tunnel		Watercourse
	Route on surface		Water body
	Depot, station, headhouse or portal building		Woodland (verified by survey)
	Land potentially required during construction		Area contains new survey data
	Community area boundary		
	County boundary		
	District/Borough boundary		

<b>Confirmed bat roost - trees:</b>		<b>Confirmed bat roost - building:</b>		<b>Potential to support roosting bats - buildings:</b>	
	Hibernation roost		Hibernation roost		High
	Maternity roost		Maternity roost		Moderate
	Other roost		Other roost		High
	Multiple roost types		Multiple roost types		Moderate

Map Number	EC-05-511-R1
Map Name	Bat - Roost SES1 and AP1 ES
Community Area MA03: Pickmere to Agden and Hulseheath	

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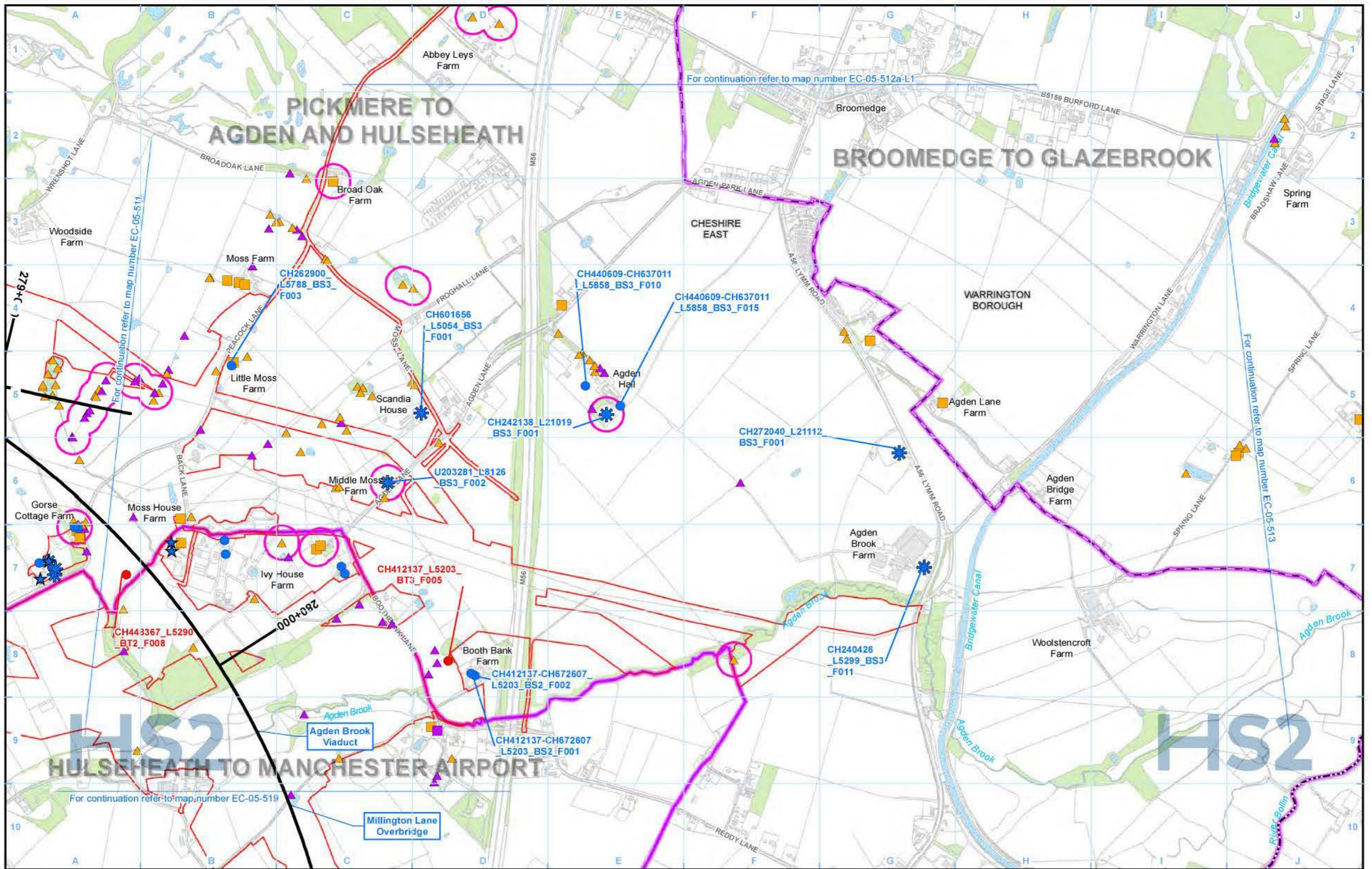
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Doc Number: 2PT24-MWJ-EV-MAP-M000-003662-P01

Date: 21/04/22

Scale at A3: 1:10,000





**Legend**

Route in tunnel	Watercourse	Confirmed bat roost - trees:	Confirmed bat roost - building:	Potential to support roosting bats - buildings:
Route on surface	Water body	Hibernation roost	Hibernation roost	High
Depot, station, headhouse or portal building	Woodland (verified by survey)	Maternity roost	Maternity roost	Moderate
Land potentially required during construction	Area contains new survey data	Other roost	Other roost	High
Community area boundary		Multiple roost types	Multiple roost types	Moderate
County boundary				
District/Borough boundary				

Map Number: EC-05-512a

Map Name: Bat - Roost SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

**HS2**

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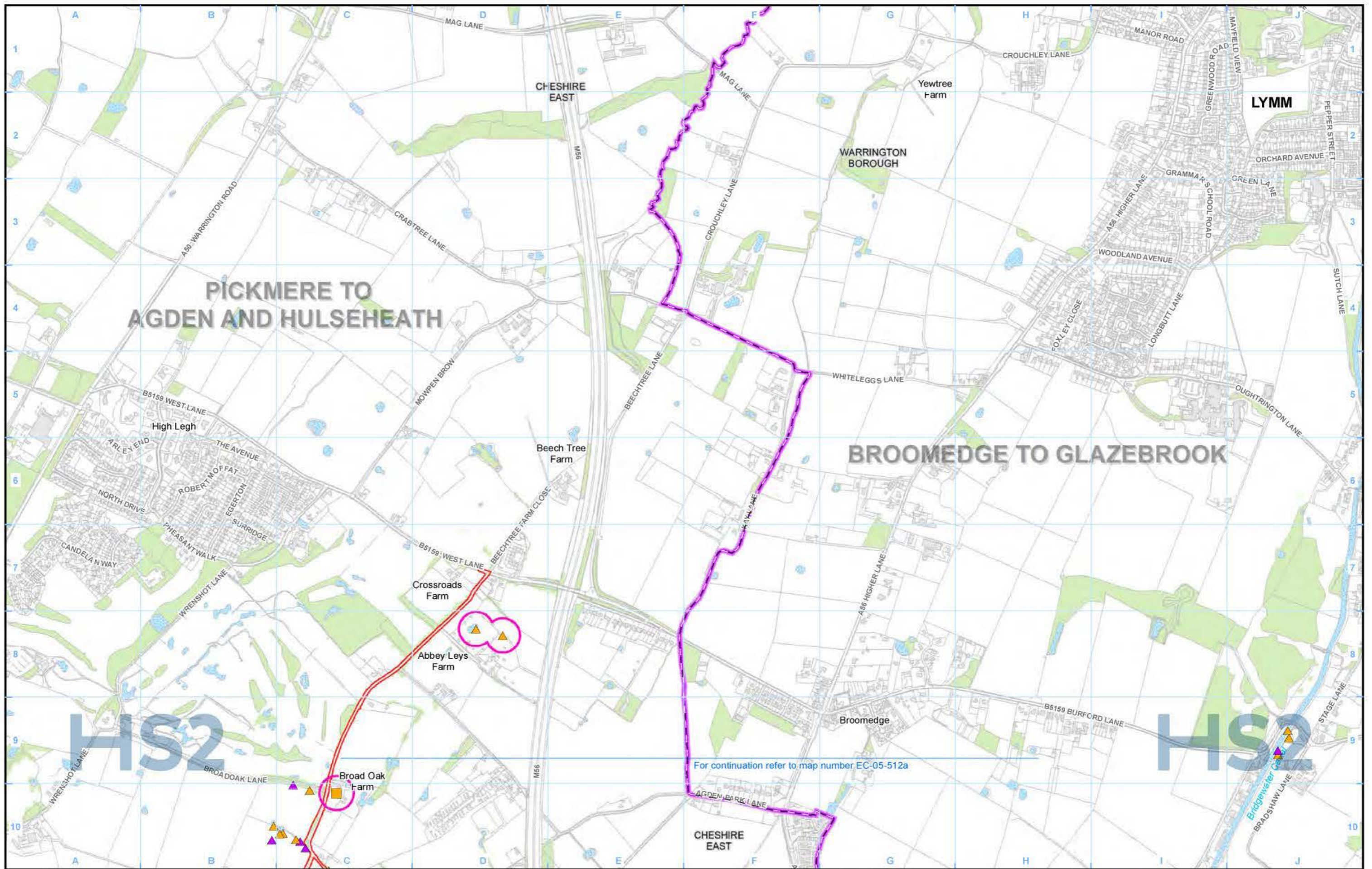
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Date: 21/04/22

Scale at A3: 1:10,000

100 200 300 400  
Metres





# PICKMERE TO AGDEN AND HULSEHEATH

# BROOMEDGE TO GLAZEBROOK

**Legend**


<b>Confirmed bat roost - trees:</b>	<b>Confirmed bat roost - building:</b>	<b>Potential to support roosting bats - buildings:</b>
Hibernation roost	Hibernation roost	High
Maternity roost	Maternity roost	Moderate
Other roost	Other roost	<b>Potential to support roosting bats - trees:</b>
Multiple roost types	Multiple roost types	High
		Moderate

Map Number	EC-05-512a-L1
Map Name	Bat - Roost SES1 and AP1 ES
Community Area MA03: Pickmere to Agden and Hulseheath	

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Doc Number: 2PT24-MWJ-EV-MAP-M000-003615-P01

Date: 21/04/22

Scale at A3: 1:10,000

100 200 300 400  
Metres

For continuation refer to map number EC-05-512a

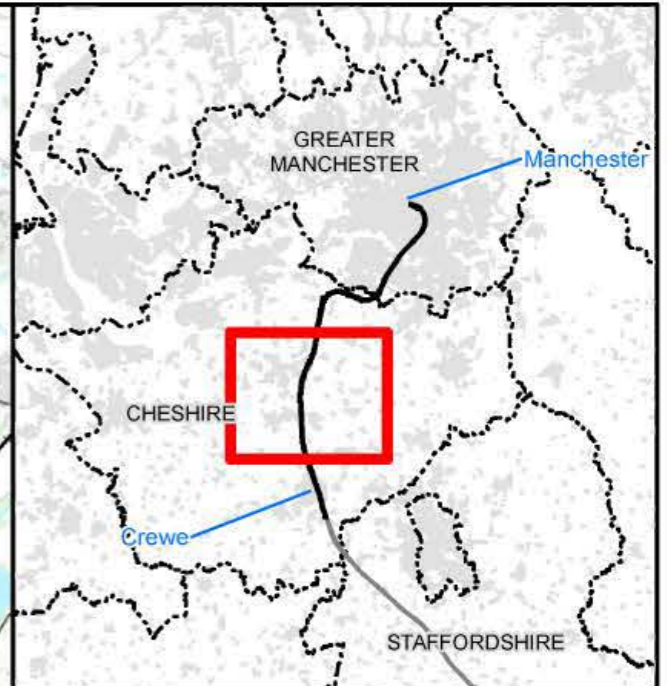
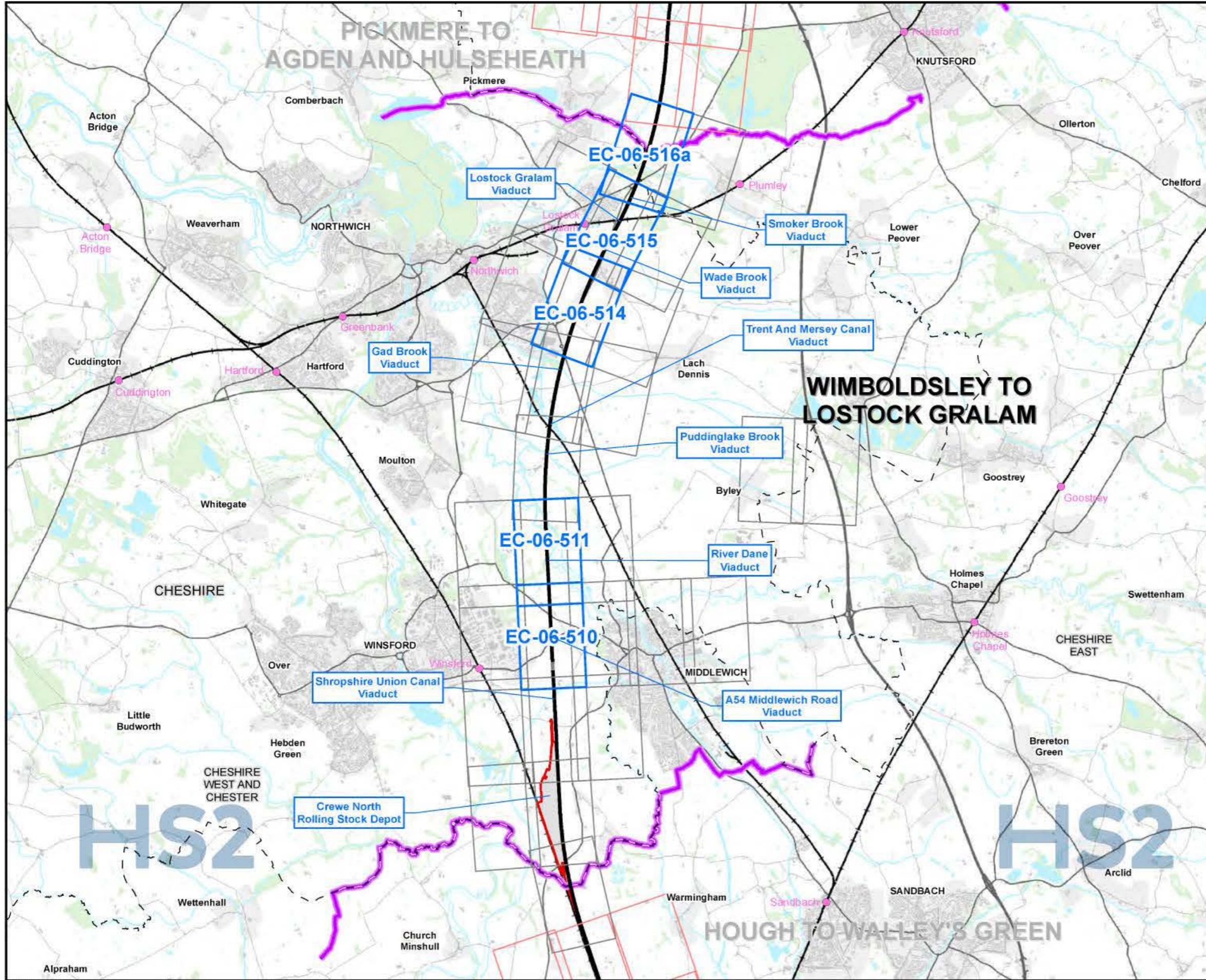


## **High Speed Rail (Crewe – Manchester)**

**Background information and data accompanying  
Supplementary Environmental Statement 1 and  
Additional Provision 1 Environmental Statement**

EC-06 – Bat - Activity





**Map Series Information:**

This map series shows the location of bat activity surveys conducted to inform the Environmental Statement. In addition it shows the location of the key bat foraging and commuting routes which have been established on the basis of the survey work conducted.

**Main Map Legend**

	Route in tunnel		Map sheets included in this community area
	Route on surface		Map sheets included in this community area 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	EC-06-INDEX-MA02
Map Name	Index Map of: Bat - Activity SES1 and AP1 ES Community Area MA02: Wimboldsley to Lostock Gralam

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Scale at A3: 1:75,000

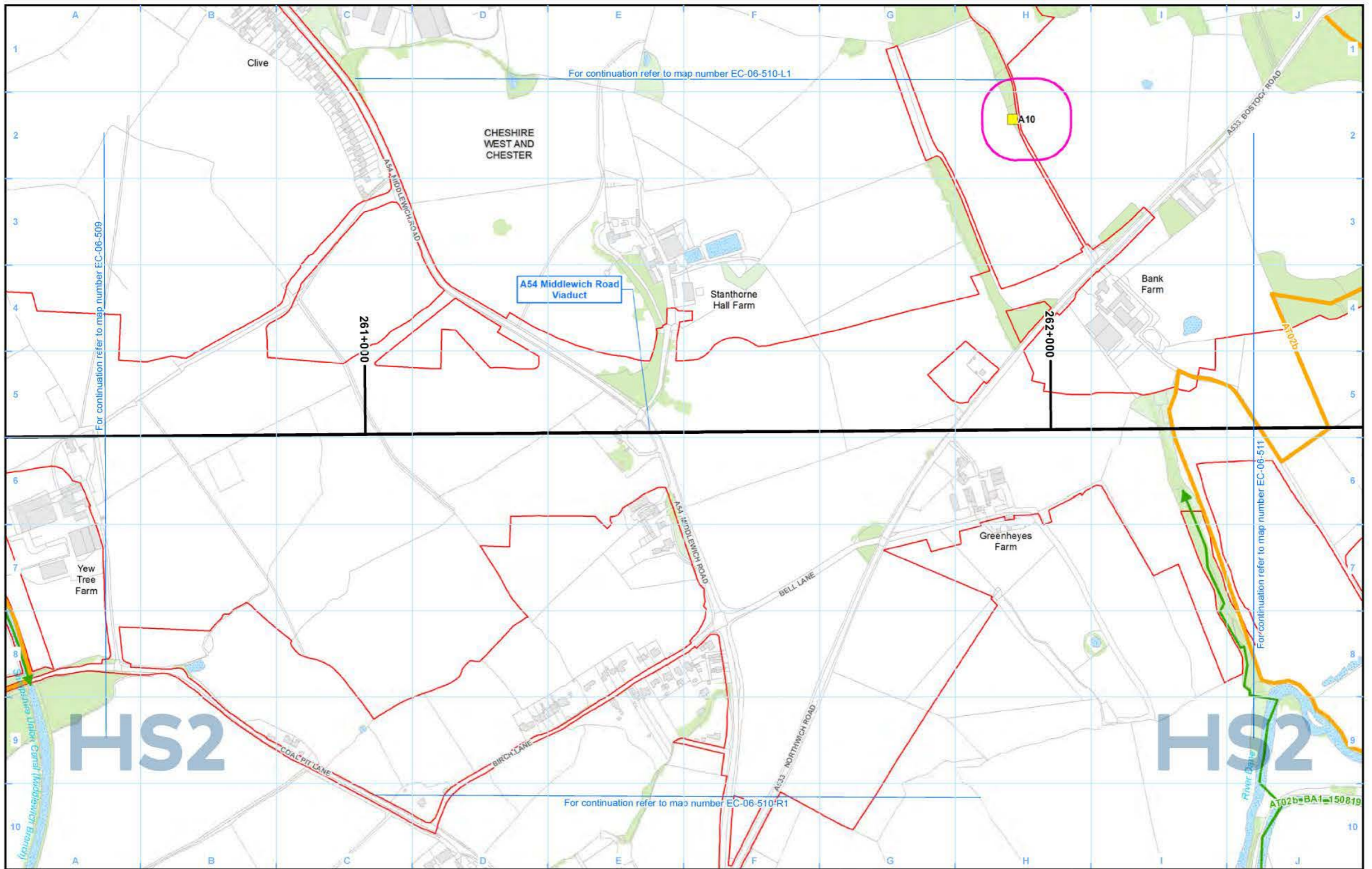
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Doc Number: 2PT24-MWJ-EV-MAP-M000-001102-P01

Date: 21/04/22

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





**Legend**

Route in tunnel	Watercourse	Bat activity static detector location
Route on surface	Water body	Activity transect route
Depot, station, headhouse or portal building	Woodland (verified by survey)	Assumed key commuting route
Land potentially required during construction	Area contains new survey data	Assumed key areas of foraging habitat
Community area boundary		
County boundary		
District/Borough boundary		

Map Number: EC-06-510

Map Name: Bat - Activity SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

**HS2**

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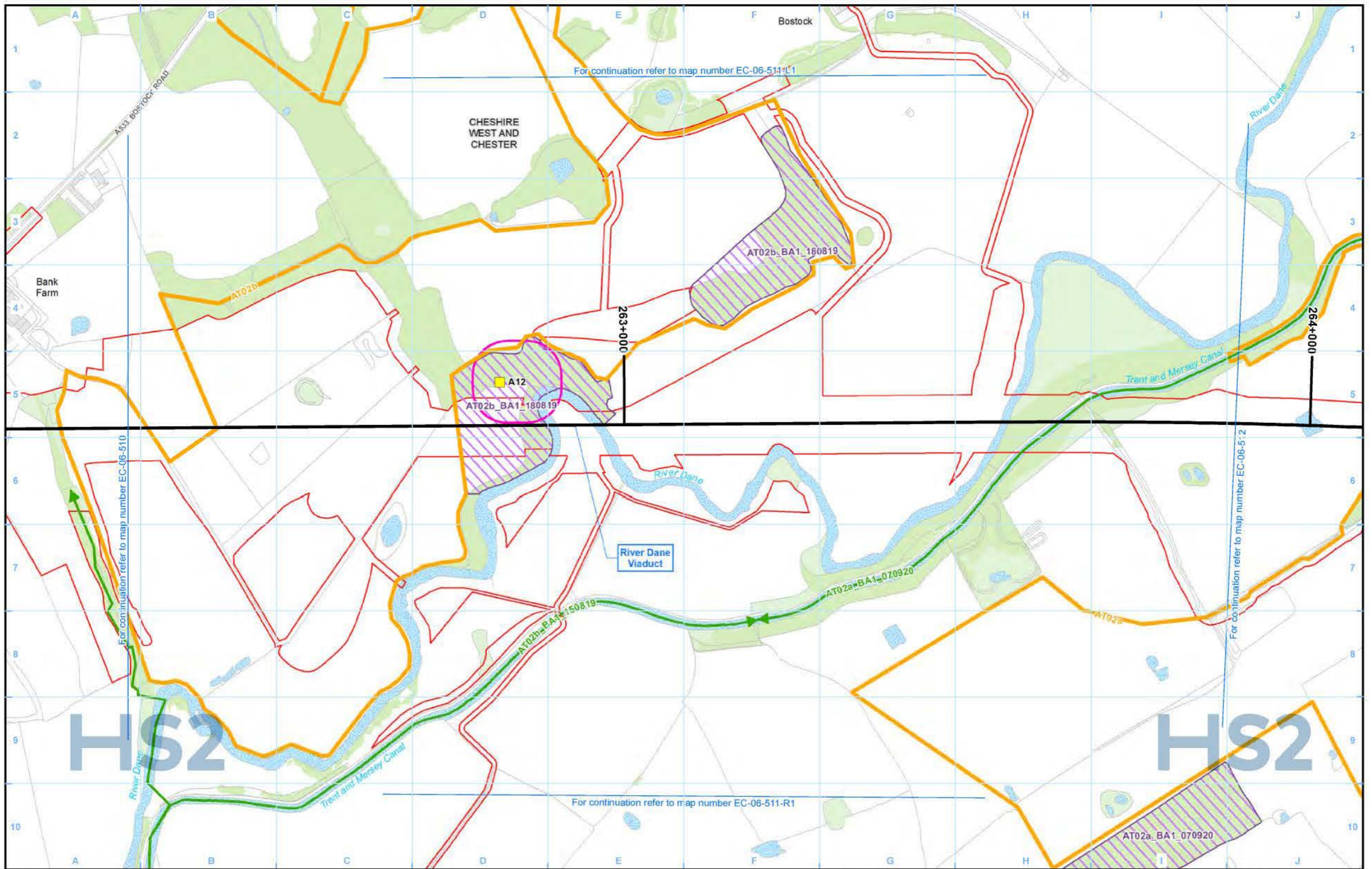
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Date: 21/04/22





**Legend**

Route in tunnel	Watercourse	Bat activity static detector location
Route on surface	Water body	Activity transect route
Depot, station, headhouse or portal building	Woodland (verified by survey)	Assumed key commuting route
Land potentially required during construction	Area contains new survey data	Assumed key areas of foraging habitat
Community area boundary		
County boundary		
District/Borough boundary		

Map Number: EC-06-511

Map Name: Bat - Activity SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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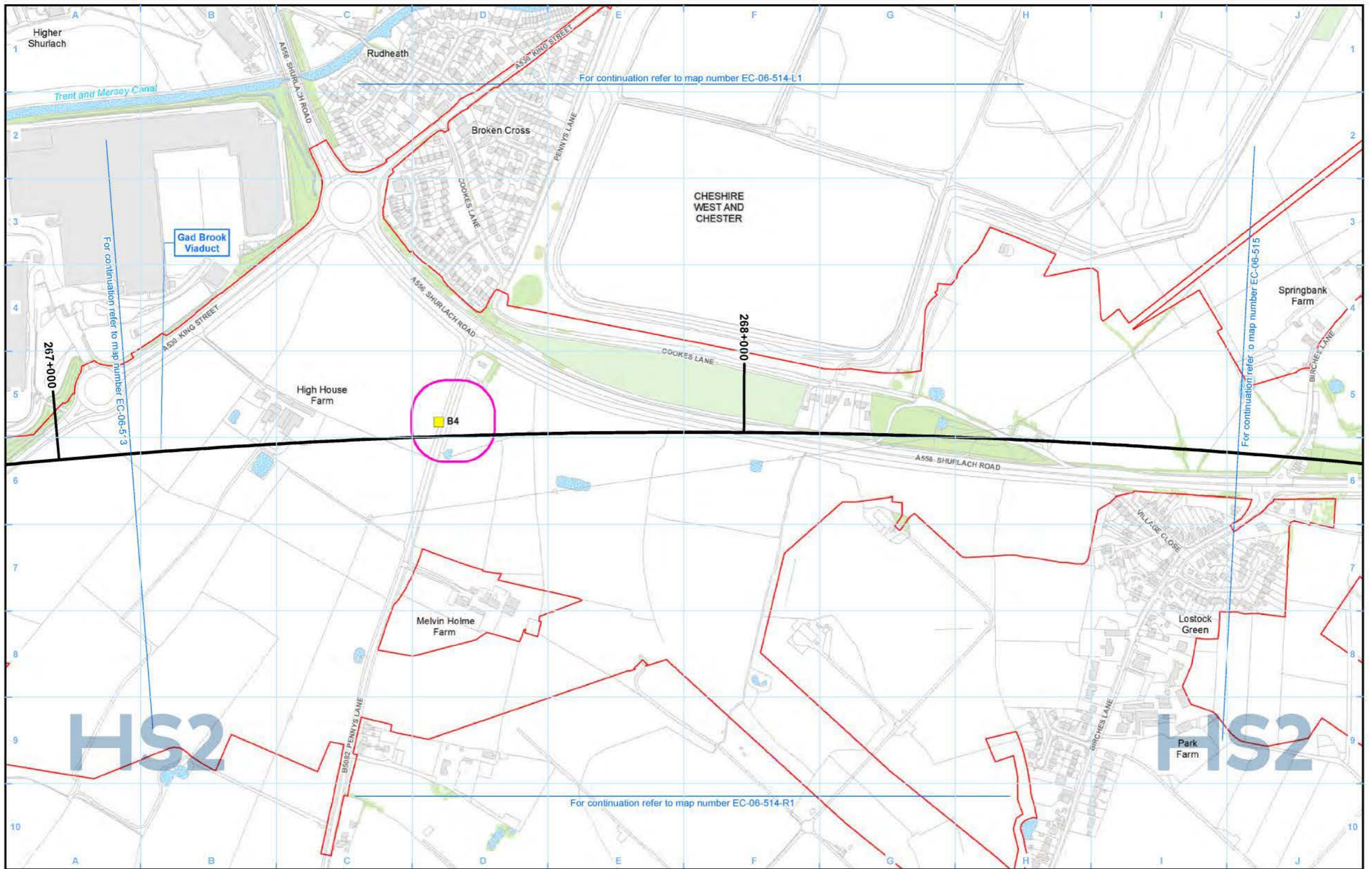
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Doc Number: 2PT24-MWJ-EV-MAP-M000-001050-P01

Scale at A3: 1:5,000

Date: 21/04/22





Legend		

Map Number	EC-06-514
Map Name	Bat - Activity SES1 and AP1 ES
	Community Area MA02: Wimboldsley to Lostock Gralam

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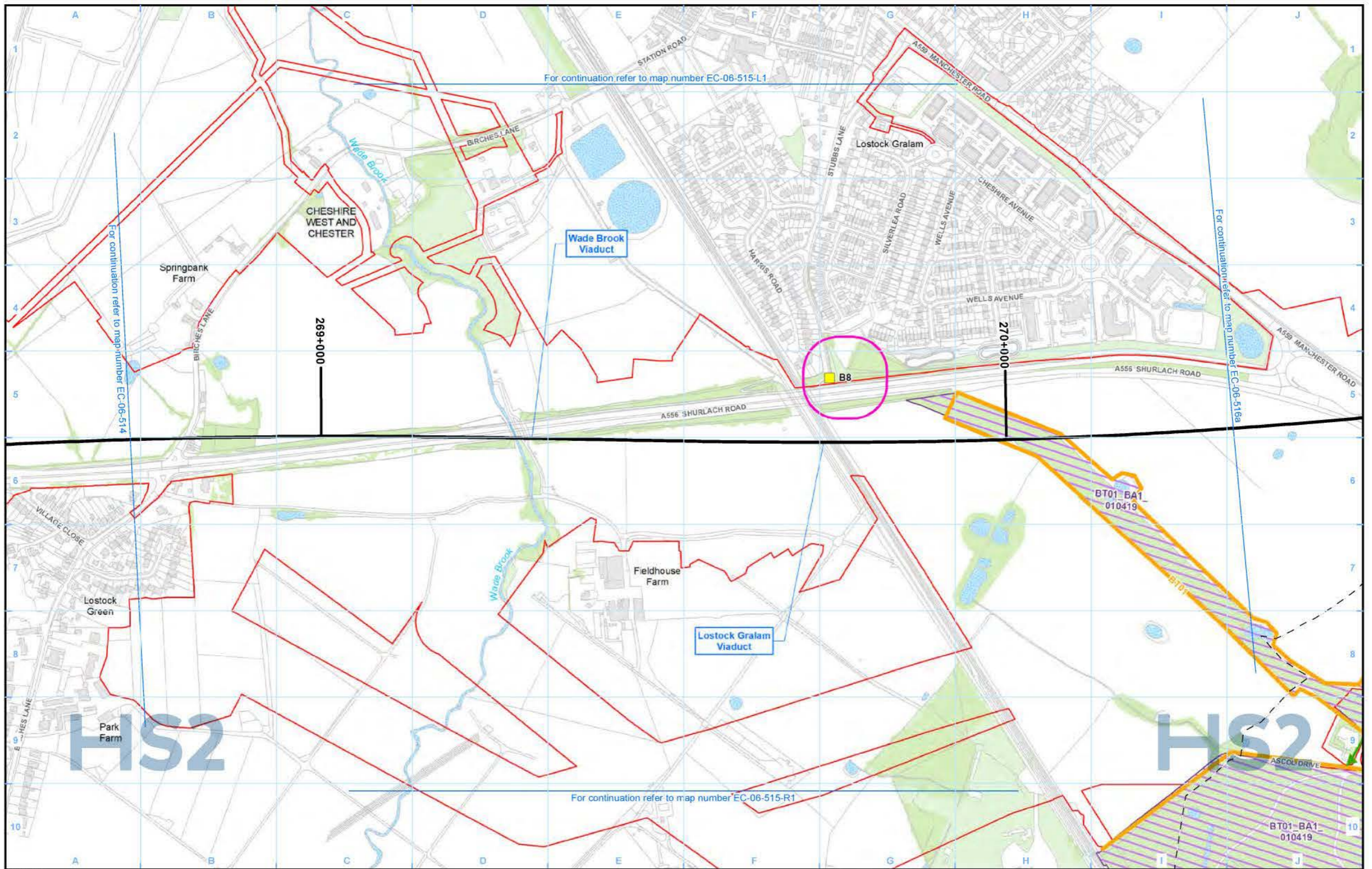
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Date: 21/04/22





Legend		

Map Number	EC-06-515
Map Name	Bat - Activity SES1 and AP1 ES
	Community Area MA02: Wimboldsley to Lostock Garam

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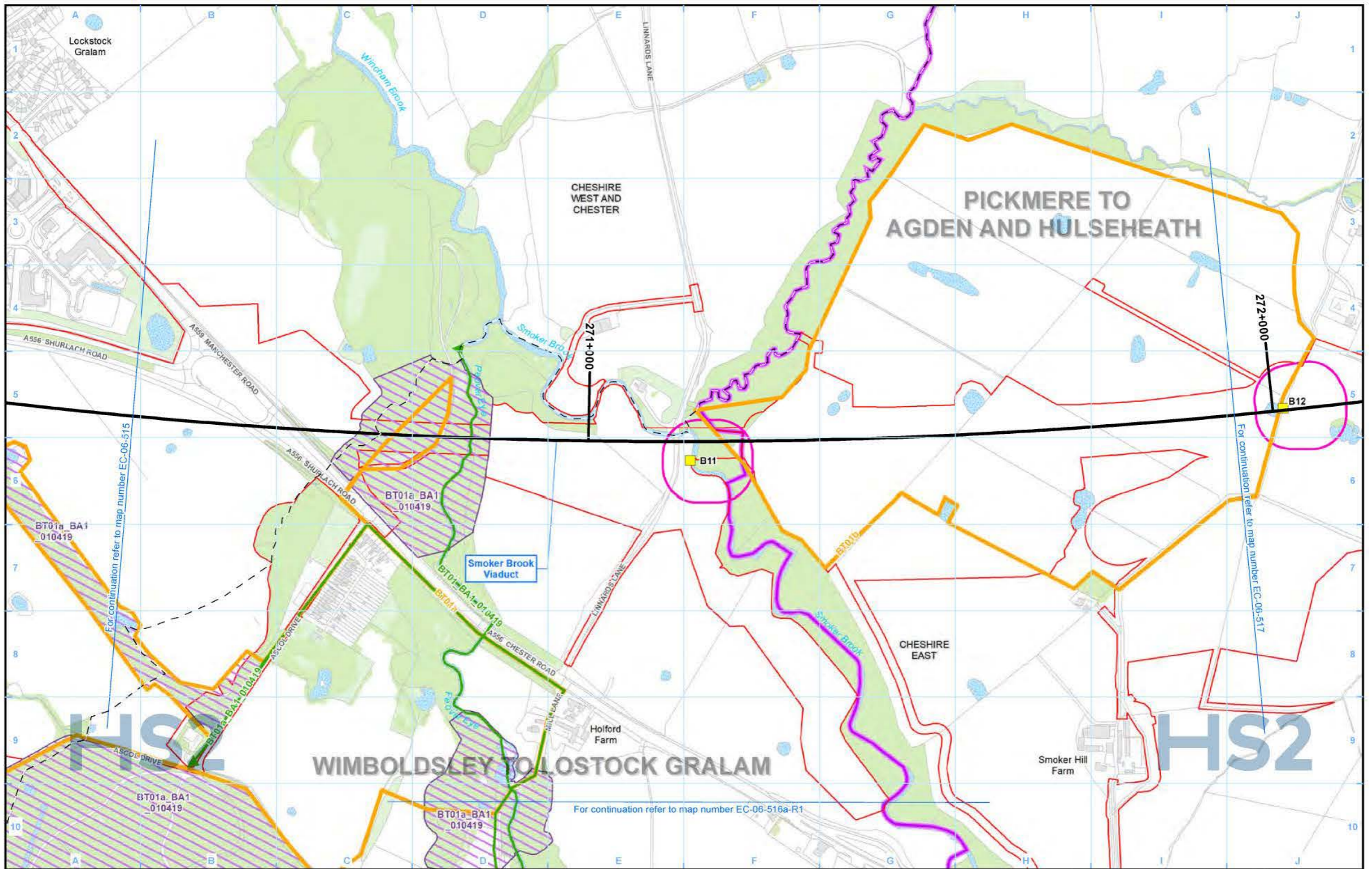
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Scale at A3: 1:5,000

Date: 21/04/22





Legend		

Map Number	EC-06-516a
Map Name	Bat - Activity SES1 and AP1 ES
Community Area MA02: Wimboldsley to Lostock Gralam	

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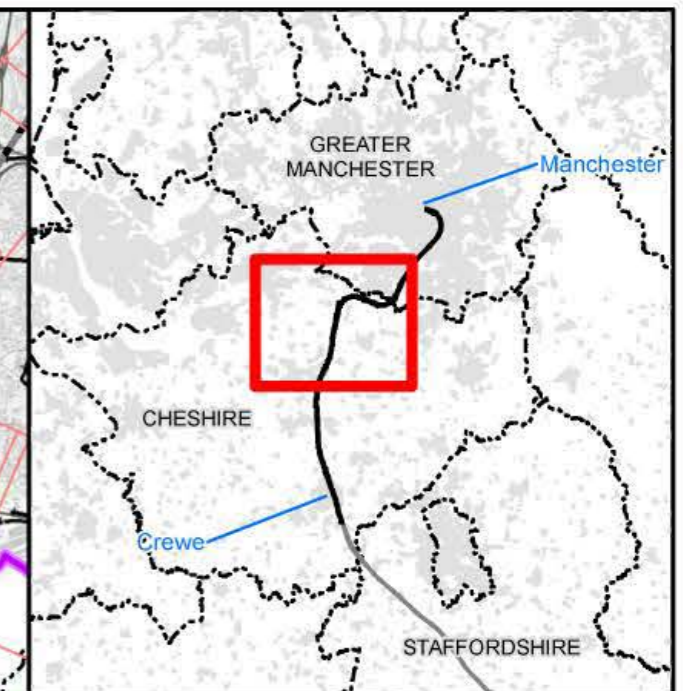
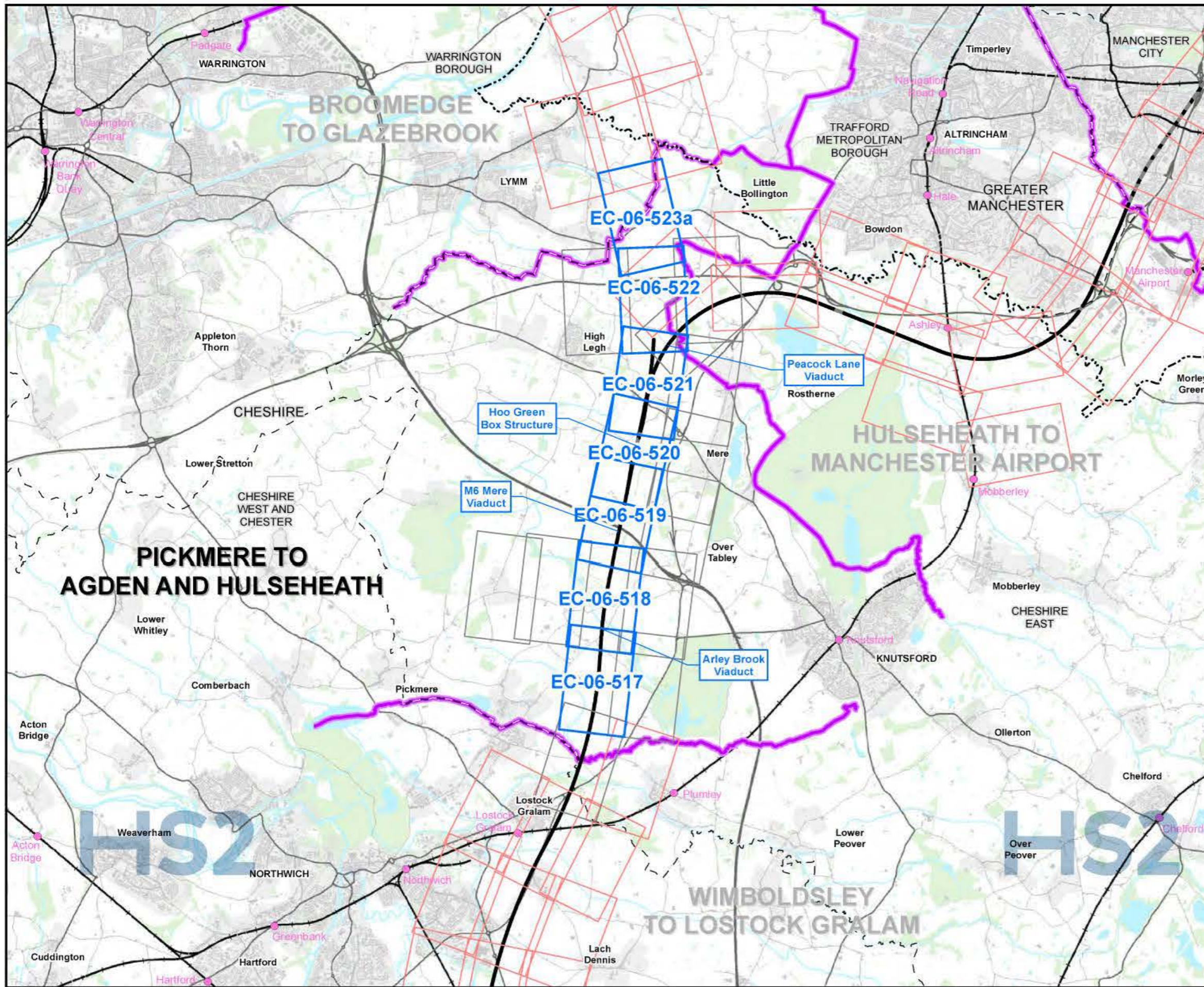
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Doc Number: 2PT24-MWJ-EV-MAP-M000-001055-P01

Scale at A3: 1:5,000

Date: 21/04/22





**Map Series Information:**

This map series shows the location of bat activity surveys conducted to inform the Environmental Statement. In addition it shows the location of the key bat foraging and commuting routes which have been established on the basis of the survey work conducted.

- 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 area with no amendment
  - Map sheets not included in this community area

Map Number: EC-06-INDEX-MA03

Map Name: Index Map of:  
Bat - Activity  
SES1 and AP1 ES  
Community Area MA03:  
Pickmere to Agden and Hulseheath

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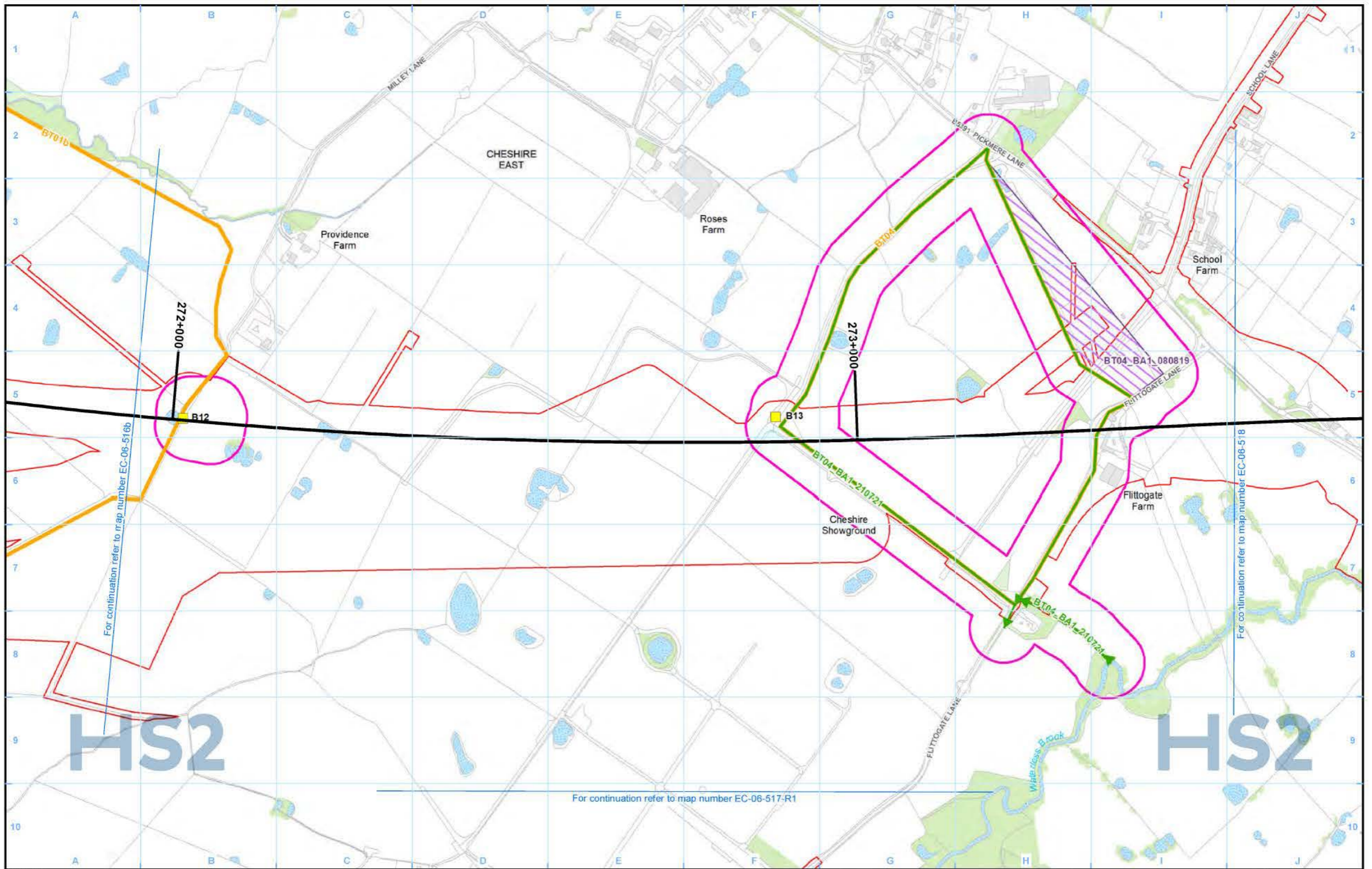
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Doc Number: 2PT24-MWJ-EV-MAP-M000-001103-P01 Date: 21/04/22





Legend			
	Route in tunnel		Bat activity static detector location
	Route on surface		Activity transect route
	Depot, station, headhouse or portal building		Assumed key commuting route
	Land potentially required during construction		Assumed key areas of foraging habitat
	Community area boundary		Watercourse
	County boundary		Water body
	District/Borough boundary		Woodland (verified by survey)
			Area contains new survey data

Map Number	EC-06-517
Map Name	Bat - Activity SES1 and AP1 ES
Community Area MA03: Pickmere to Agden and Hulseath	

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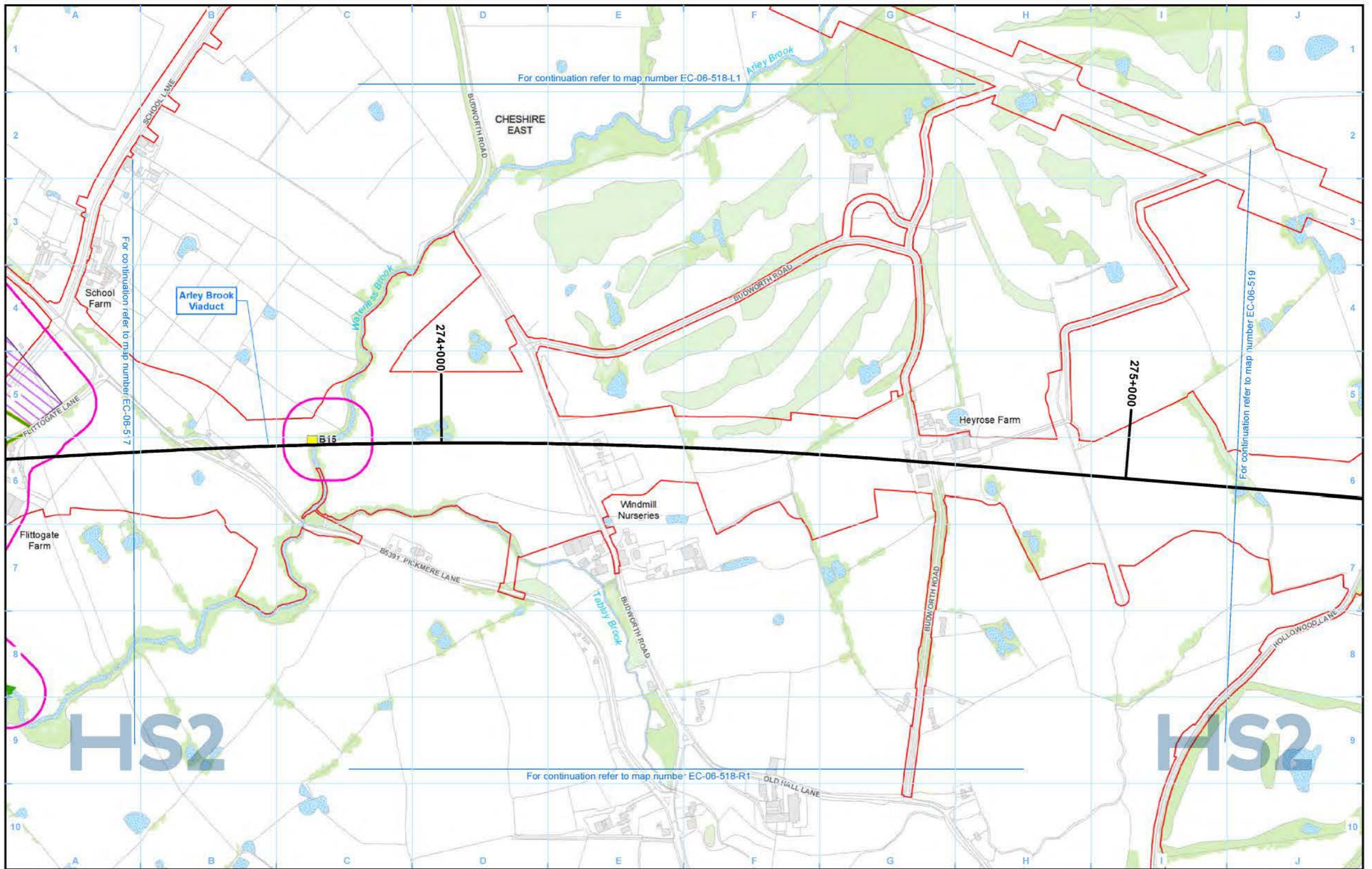
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Doc Number: 2PT24-MWJ-EV-MAP-M000-001057-P01

Scale at A3: 1:5,000

Date: 21/04/22





Legend			
	Route in tunnel		Bat activity static detector location
	Route on surface		Activity transect route
	Depot, station, headhouse or portal building		Assumed key commuting route
	Land potentially required during construction		Assumed key areas of foraging habitat
	Community area boundary		Watercourse
	County boundary		Water body
	District/Borough boundary		Woodland (verified by survey)
			Area contains new survey data

Map Number	EC-06-518
Map Name	Bat - Activity SES1 and AP1 ES
	Community Area MA03: Pickmere to Agden and Hulse Heath

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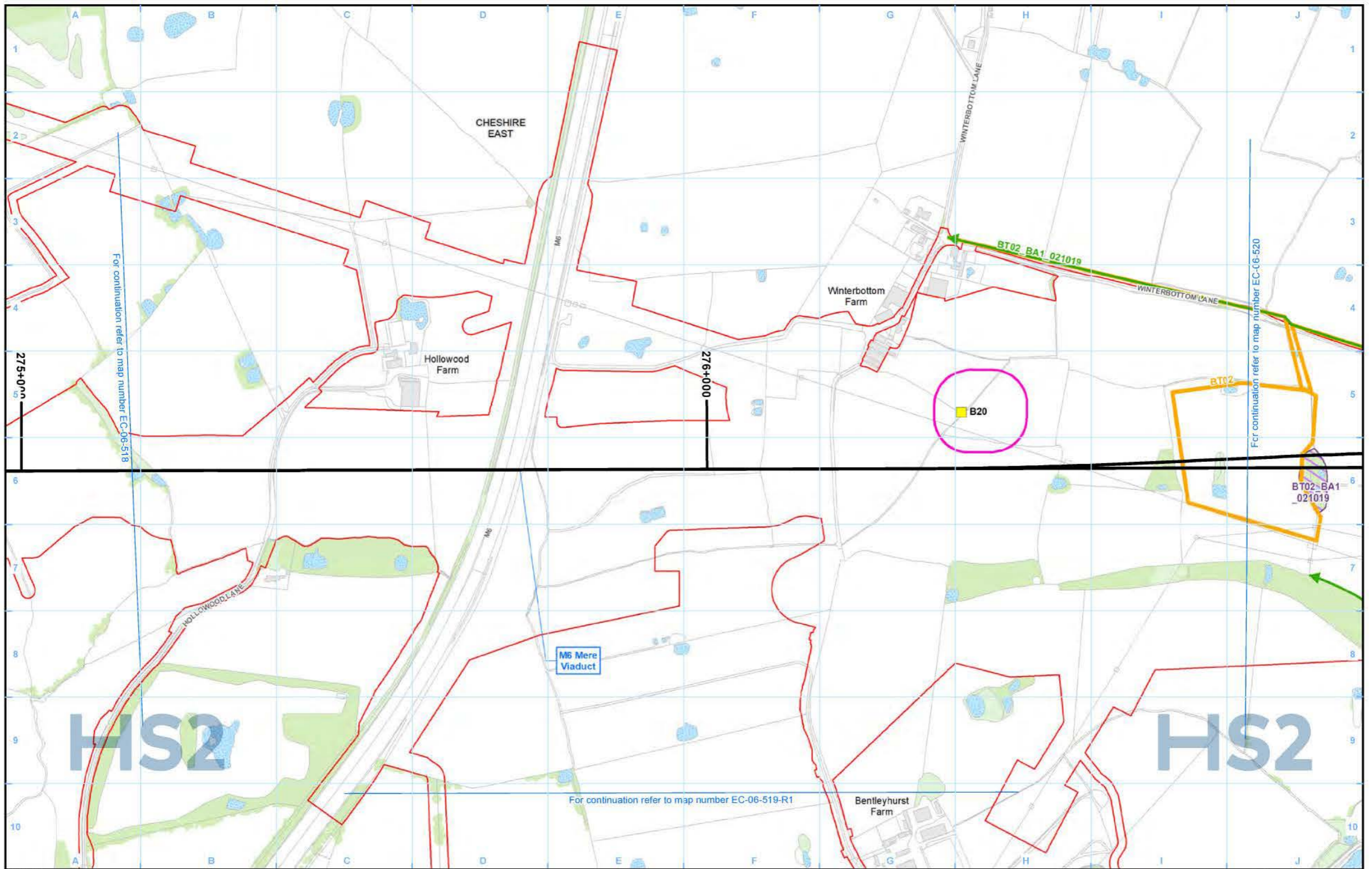
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Doc Number: 2PT24-MWJ-EV-MAP-M000-001058-P01

Scale at A3: 1:5,000

Date: 21/04/22





Legend		

Map Number	EC-06-519
Map Name	Bat - Activity SES1 and AP1 ES
Community Area MA03: Pickmere to Agden and Hulseath	

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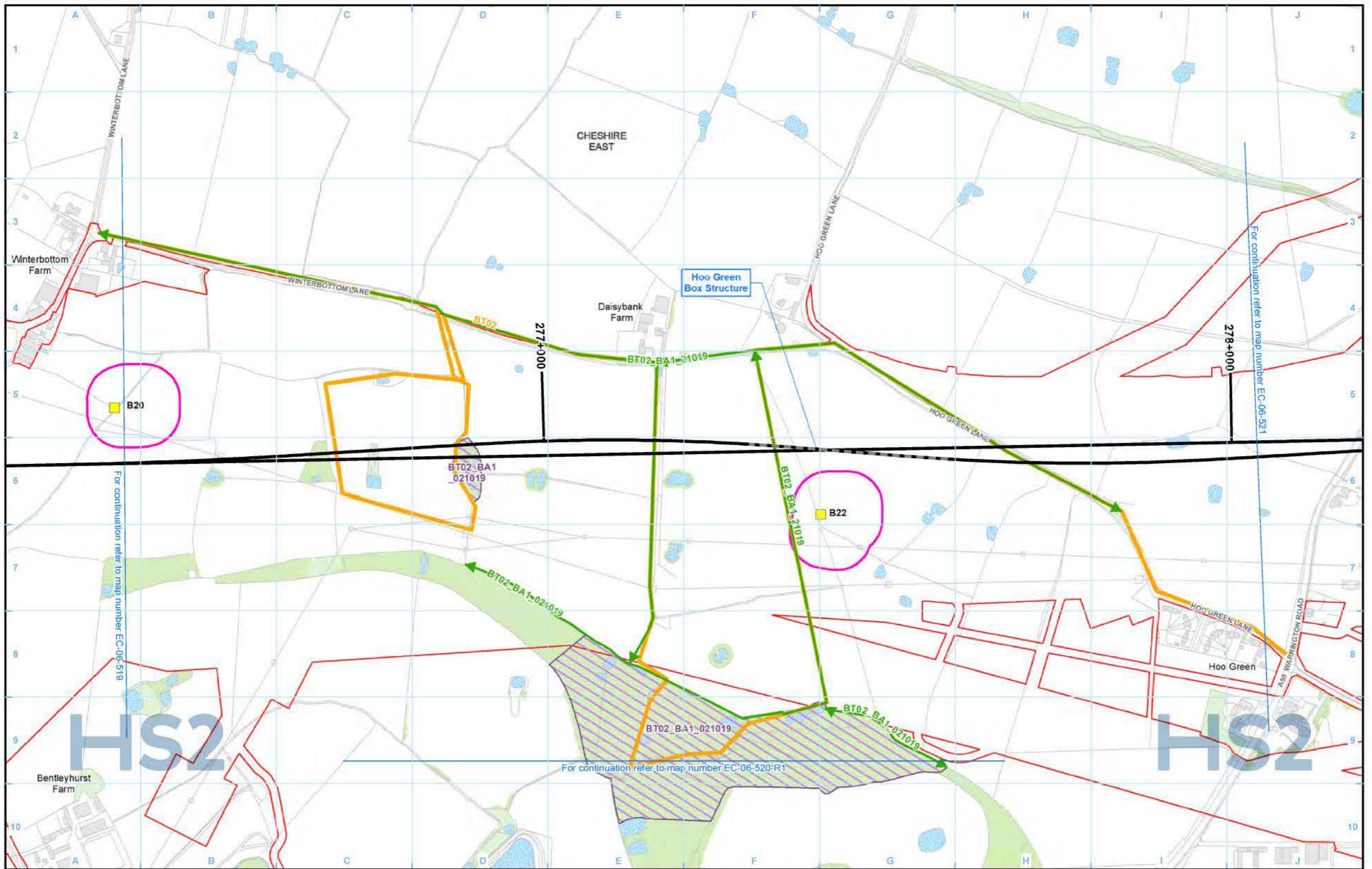
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Doc Number: 2PT24-MWJ-EV-MAP-M000-001059-P01

Scale at A3: 1:5,000

Date: 21/04/22





Legend			
	Route in tunnel		Bat activity static detector location
	Route on surface		Activity transect route
	Depot, station, headhouse or portal building		Assumed key commuting route
	Land potentially required during construction		Assumed key areas of foraging habitat
	Community area boundary		Watercourse
	County boundary		Water body
	District/Borough boundary		Woodland (verified by survey)
			Area contains new survey data

Map Number	EC-06-520
Map Name	Bat - Activity SES1 and AP1 ES
Community Area MA03: Pickmere to Agden and Hulsehealth	

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Scale at A3: 1:5,000

Date: 21/04/22

For continuation refer to map number EC-06-519

For continuation refer to map number EC-06-521

For continuation refer to map number EC-06-520-R1

277+000

278+000

BT02\_BA1\_021019

BT02\_BA1\_21019

BT02\_BA1\_021019

BT02\_BA1\_021019

CHESHIRE EAST

Winterbottom Farm

Daisybank Farm

Hoo Green Box Structure

Hoo Green

Bentleyhurst Farm

B20

B22

HS2

HS2

WARRINGTON ROAD  
A59

WINTERBOTTOM LANE

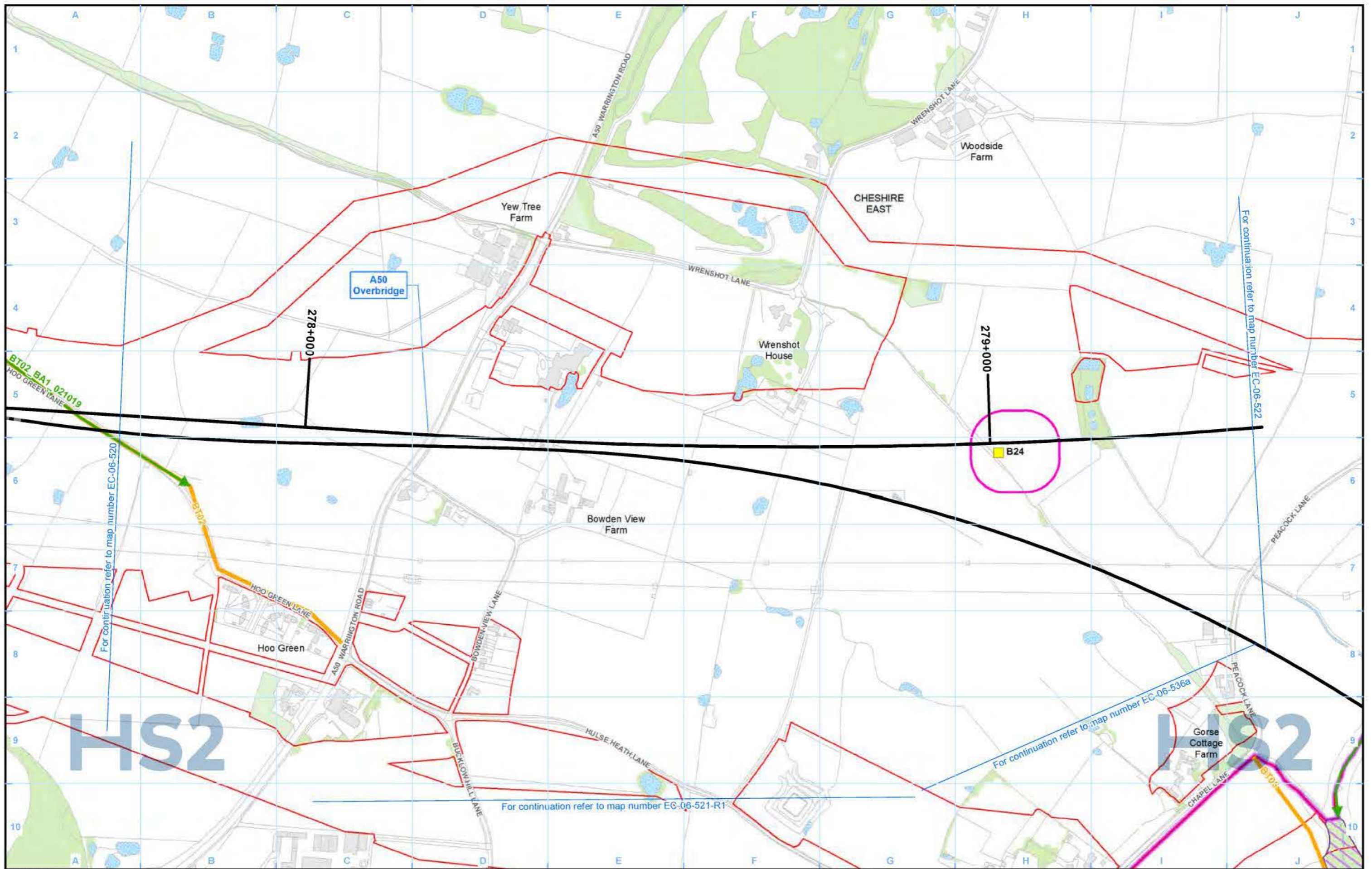
HOO GREEN LANE

WINTERBOTTOM LANE

HOO GREEN LANE

HOO GREEN LANE





Legend			
	Route in tunnel		Bat activity static detector location
	Route on surface		Activity transect route
	Depot, station, headhouse or portal building		Assumed key commuting route
	Land potentially required during construction		Area contains new survey data
	Community area boundary		Assumed key areas of foraging habitat
	County boundary		Watercourse
	District/Borough boundary		Water body
	Woodland (verified by survey)		Water body
	Woodland (verified by survey)		Woodland (verified by survey)

Map Number	EC-06-521
Map Name	Bat - Activity SES1 and AP1 ES
Community Area MA03: Pickmere to Agden and Hulseheath	

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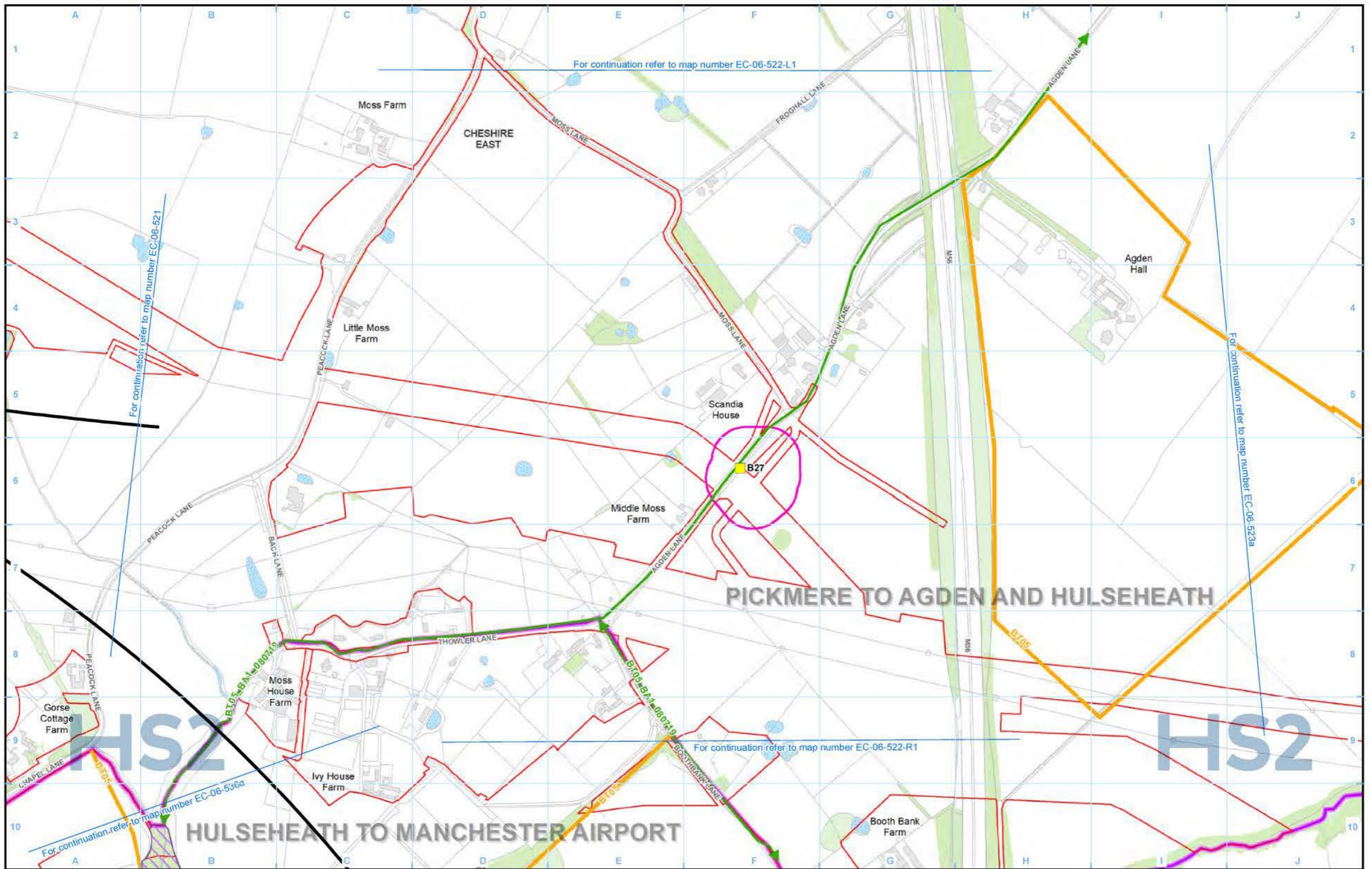
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Doc Number: 2PT24-MWJ-EV-MAP-M000-001061-P01

Scale at A3: 1:5,000

Date: 21/04/22





**Legend**

Route in tunnel	Watercourse	Bat activity static detector location
Route on surface	Water body	Activity transect route
Depot, station, headhouse or portal building	Woodland (verified by survey)	Assumed key commuting route
Land potentially required during construction	Area contains new survey data	Assumed key areas of foraging habitat
Community area boundary		
County boundary		
District/Borough boundary		

Map Number: EC-06-522

Map Name: Bat - Activity SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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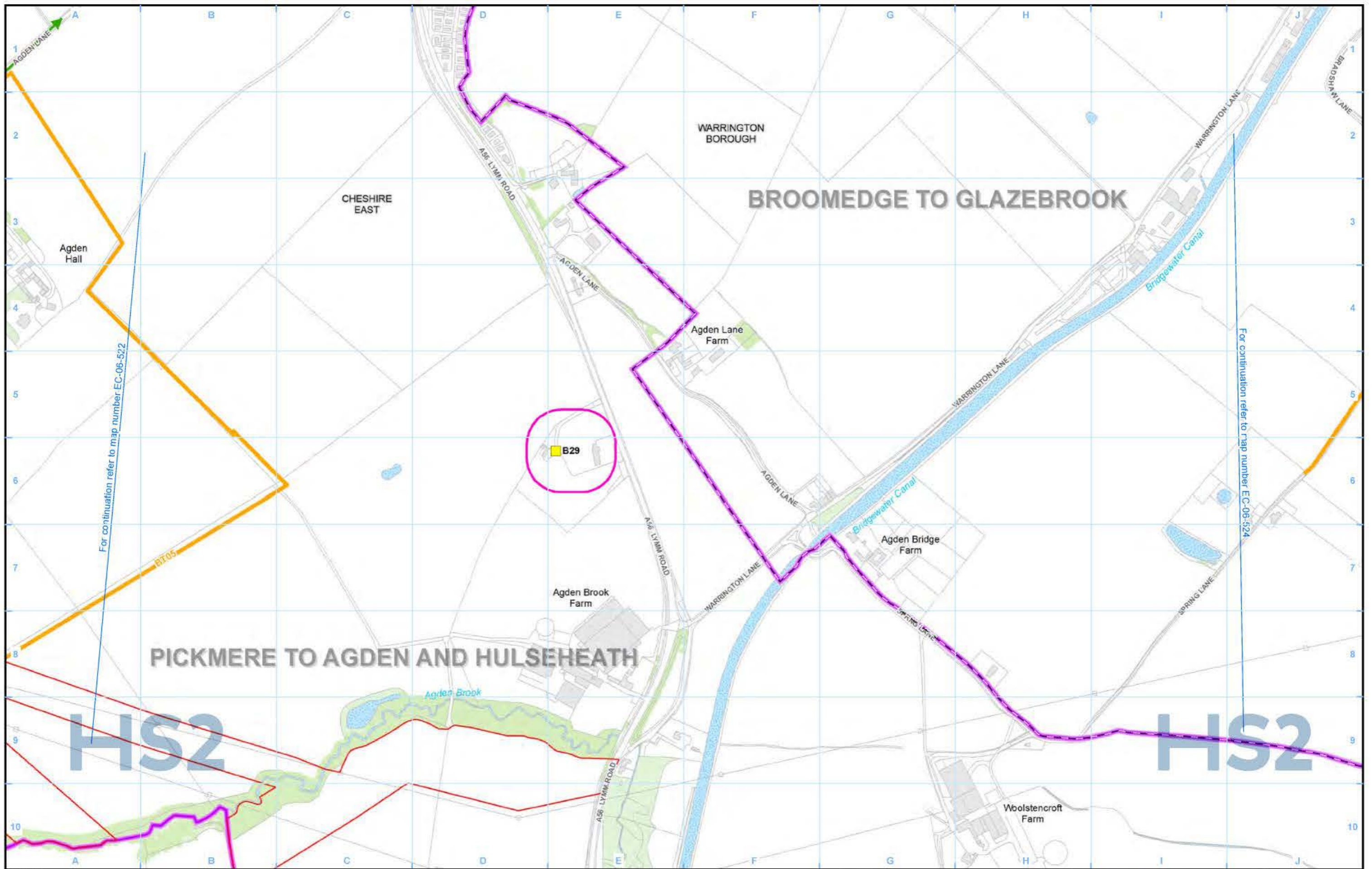
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Date: 21/04/22

Scale at A3: 1:5,000

0 50 100 150 200 Metres





**Legend**

Route in tunnel	Watercourse	Bat activity static detector location
Route on surface	Water body	Activity transect route
Depot, station, headhouse or portal building	Woodland (verified by survey)	Assumed key commuting route
Land potentially required during construction	Area contains new survey data	Assumed key areas of foraging habitat
Community area boundary		
County boundary		
District/Borough boundary		

Map Number: EC-06-523a

Map Name: Bat - Activity SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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**BROOMEDGE TO GLAZE BROOK**

**PICKMERE TO AGDEN AND HULSEHEATH**

For continuation refer to map number EC-06-522

For continuation refer to map number EC-06-524



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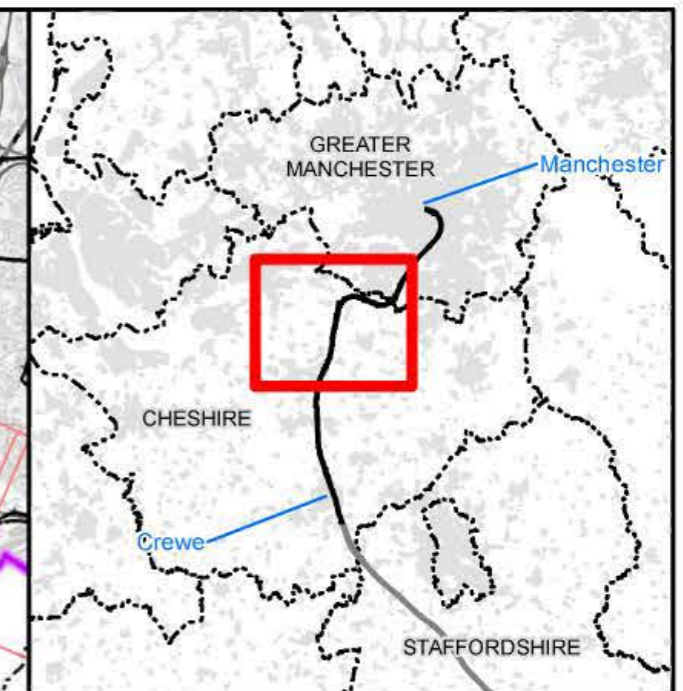
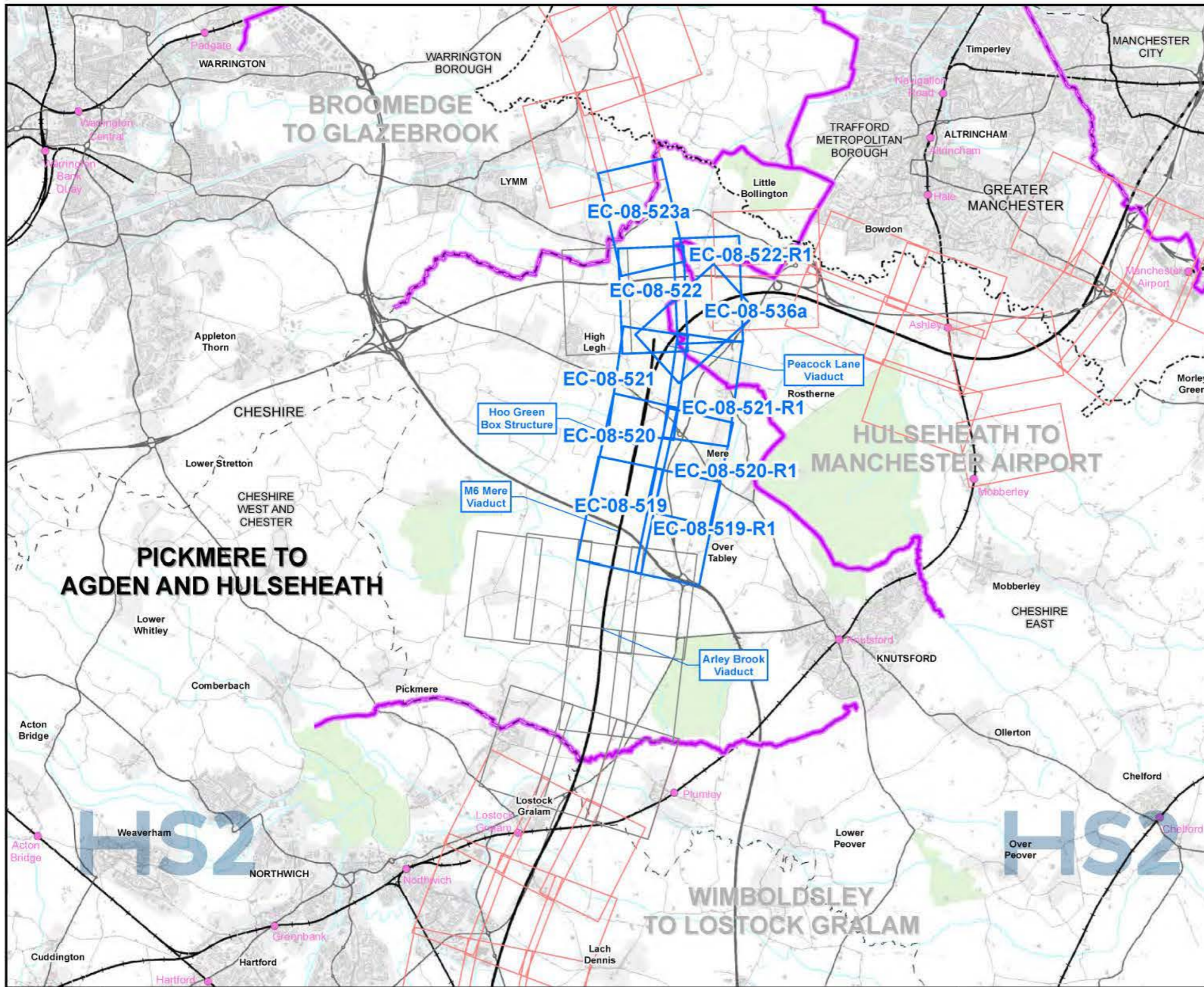


## **High Speed Rail (Crewe – Manchester)**

**Background information and data accompanying  
Supplementary Environmental Statement 1 and  
Additional Provision 1 Environmental Statement**

EC-08 – Breeding Birds - Protected and Notable Species





**Map Series Information:**

This map series shows records of protected/notable breeding birds that are considered most relevant in considering the impacts of the Proposed Scheme on breeding birds. The location of nest sites for species such as barn owl and raptor species which may be liable to persecution are not displayed.

- 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 with amendment
  - Map sheets included in this community area with no amendment
  - Map sheets not included in this community area

Map Number: EC-08-INDEX-MA03

Map Name: Index Map of:  
Breeding Birds – Protected and Notable Species  
SES1 and AP1 ES  
Community Area MA03:  
Pickmere to Agden and Hulseheath

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Date: 21/04/22



**BTO SPECIES CODES**

AC	Arctic Skua	DN	Dunlin	JD	Jackdaw	PO	Pochard	T.	Teal
AE	Arctic Tern	DO	Dotterel	K.	Kestrel	PS	Purple Sandpiper	TC	Treecreeper
AF	Little Tern	DR	Spotted Redshank	KF	Kingfisher	PT	Pintail	TD	Turtle Dove
AK	Spotted Crake	DV	Rock Dove (not feral)	KI	Kittiwake	PU	Puffin	TE	Sandwich Tern
AV	Avocet	DW	Dartford Warbler	KN	Knot	PW	Pied Wagtail	TK	Temminck's Stint
B.	Blackbird	E.	Eider	KT	Red Kite	PX	Peafowl/Peacock	TL	Leach's Petrel
BA	Bar-tailed Godwit	EA	Golden Eagle	L.	Lapwing	Q.	Quail	TM	Storm Petrel
BC	Blackcap	ED	Red-backed Shrike	LA	Lapland Bunting	R.	Robin	TN	Stone-curlew
BF	Bullfinch	EG	Egyptian Goose	LB	Lesser Black-backed Gull	RA	Razorbill	TO	Tawny Owl
BG	Brent Goose	ET	Little Egret	LE	Long-eared Owl	RB	Reed Bunting	TP	Tree Pipit
BH	Black-headed Gull	F.	Fulmar	LG	Little Grebe	RC	Rock Pipit	TS	Tree Sparrow
BI	Bittern	FC	Firecrest	LI	Linnet	RE	Redwing	TT	Turnstone
BJ	Black Tern	FF	Fieldfare	LM	Lady Amherst's Pheasant	RG	Red Grouse	TU	Tufted Duck
BK	Black Grouse	FP	Feral Pigeon	LO	Little Owl	RH	Red-throated Diver	TW	Twite
BL	Brambling	FV	Red-footed Falcon	LP	Little Ringed Plover	RI	Ring-necked Parakeet	TY	Black Guillemot
BN	Black-necked Grebe	FW	Guineafowl (Helmeted)	LR	Redpoll (Lesser)	RK	Redshank	VI	Savi's Warbler
BO	Barn Owl	G.	Green Woodpecker	LS	Lesser Spotted Woodpecker	RL	Red-legged Partridge	W.	Wheatear
BR	Bearded Tit	GA	Gadwall	LT	Long-tailed Tit	RM	Red-breasted Merganser	WA	Water Rail
BS	Berwick's Swan	GB	Great Black-backed Gull	LU	Little Gull	RN	Raven	WC	Whinchat
BT	Blue Tit	GC	Goldcrest	LW	Lesser Whitethroat	RO	Rook	WG	White-fronted Goose
BU	Bluethroat	GD	Goosander	M.	Mistle Thrush	RP	Ringed Plover	WH	Whitethroat
BV	Black-throated Diver	GE	Green Sandpiper	MA	Mallard	RQ	Red-crested Pochard	WK	Woodcock
BW	Black-tailed Godwit	GF	Golden Pheasant	MG	Magpie	RS	Roseate Tern	WL	Woodlark
BX	Black Redstart	GG	Great Crested Grebe	MH	Moorhen	RT	Redstart	WM	Whimbrel
BY	Barnacle Goose	GH	Grasshopper Warbler	ML	Merlin	RU	Ruff	WN	Wigeon
BZ	Buzzard	GI	Goshawk	MN	Mandarin Duck	RW	Reed Warbler	WO	Wood Warbler
C.	Carrion Crow	GJ	Greylag Goose	MO	Montagu's Harrier	RY	Ruddy Duck	WP	Woodpigeon
CA	Cormorant	GK	Greenshank	MP	Meadow Pipit	RZ	Ring Ouzel	WR	Wren
CB	Com Bunting	GL	Grey Wagtail	MR	Marsh Harrier	S.	Skylark	WS	Whooper Swan
CC	Chiffchaff	GN	Goldeneye	MS	Mute Swan	SA	Shag	WT	Willow Tit
CD	Collared Dove	GO	Goldfinch	MT	Marsh Tit	SB	Snow Bunting	WW	Willow Warbler
CE	Comcrake	GP	Golden Plover	MU	Mediterranean Gull	SC	Stonechat	WY	Wryneck
CF	Chough	GR	Greenfinch	MW	Marsh Warbler	SD	Stock Dove	Y.	Yellowhammer
CG	Canada Goose	GS	Great Spotted Woodpecker	MX	Manx Shearwater	SE	Short-eared Owl	YW	Yellow Wagtail
CH	Chaffinch	GT	Great Tit	N.	Nightingale	SF	Spotted Flycatcher	ZF	Feral/hybrid mallard type
CI	Crested Tit	GU	Guillemot	ND	Great Northern Diver	SG	Starling	ZL	Feral/hybrid goose
CK	Cuckoo	GV	Grey Plover	NH	Nuthatch	SH	Sparrowhawk		
CL	Cirl Bunting	GW	Garden Warbler	NJ	Nightjar	SI	Swift		
CM	Common Gull	GX	Gannet	NK	Red-necked Phalarope	SK	Siskin		
CN	Common Tern	GY	Garganey	NS	Serin	SL	Swallow		
CO	Coot	H.	Grey Heron	NX	Great Skua	SM	Sand Martin		
CP	Capercaillie	HC	Hooded Crow	OC	Oystercatcher	SN	Snipe		
CR	Crossbill (Common)	HF	Hawfinch	OD	Wood Sandpiper	SP	Scaup		
CS	Common Sandpiper	HG	Herring Gull	OL	Golden Oriole	SQ	Scarlet Rosefinch		
CT	Coal Tit	HH	Hen Harrier	OP	Osprey	SS	Sanderling		
CU	Curlew	HM	House Martin	P.	Grey Partridge	ST	Song Thrush		
CW	Cetti's Warbler	HP	Hoopoe	PE	Peregrine	SU	Shelduck		
CX	Common Scoter	HS	House Sparrow	PF	Pied Flycatcher	SV	Shoveler		
CY	Scottish Crossbill	HY	Hobby	PG	Pink-footed Goose	SW	Sedge Warbler		
D.	Dunnock	HZ	Honey Buzzard	PH	Pheasant	SX	Shorelark		
DI	Dipper	J.	Jay	PM	Ptarmigan	SZ	Slavonian Grebe		

Map Number: EC-08 Legend  
 Map Name: EC-08 BTO Bird Species Legend



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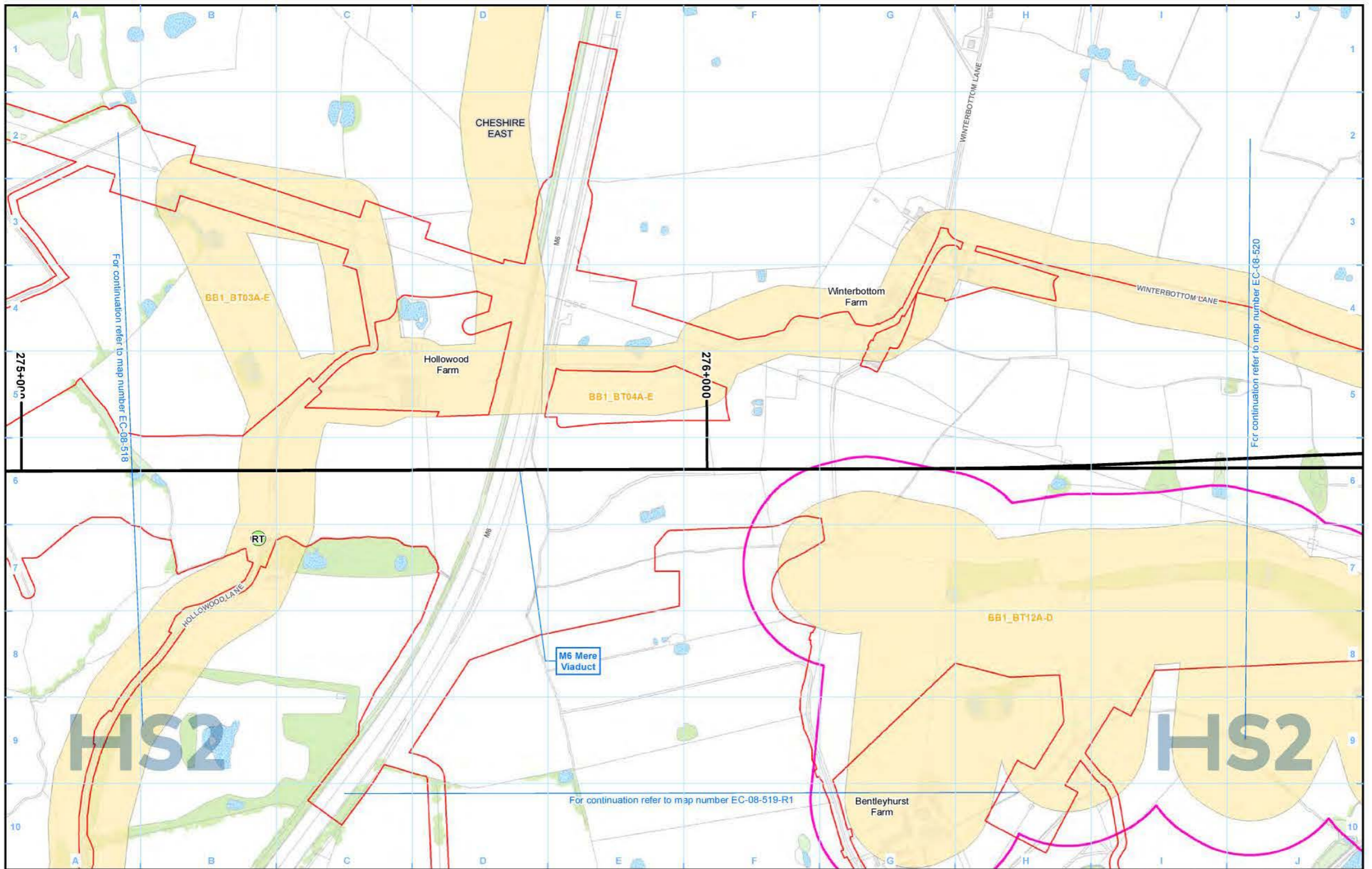
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**Legend**

<ul style="list-style-type: none"> <li>Route in tunnel</li> <li>Route on surface</li> <li>Depot, station, headhouse or portal building</li> <li>Land potentially required during construction</li> <li>Community area boundary</li> <li>County boundary</li> <li>District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li>Watercourse</li> <li>Water body</li> <li>Woodland (verified by survey)</li> <li>Area contains new survey data</li> </ul>	<ul style="list-style-type: none"> <li>Species listed on Annex I of the Birds Directive</li> <li>Species listed on Schedule 1 of the Wildlife and Countryside Act</li> </ul>	<ul style="list-style-type: none"> <li>Species listed on Annex I of the Birds Directive and Schedule 1 of the Wildlife and Countryside Act</li> <li>Birds of Conservation Concern</li> <li>Other notable species relevant to assessment</li> </ul>	<ul style="list-style-type: none"> <li>Breeding birds - survey extent</li> </ul>
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For full legend please refer to EC-08 - Bird Species Legend Page

Map Number: EC-08-519

Map Name: Breeding Birds – Protected and Notable Species SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseath

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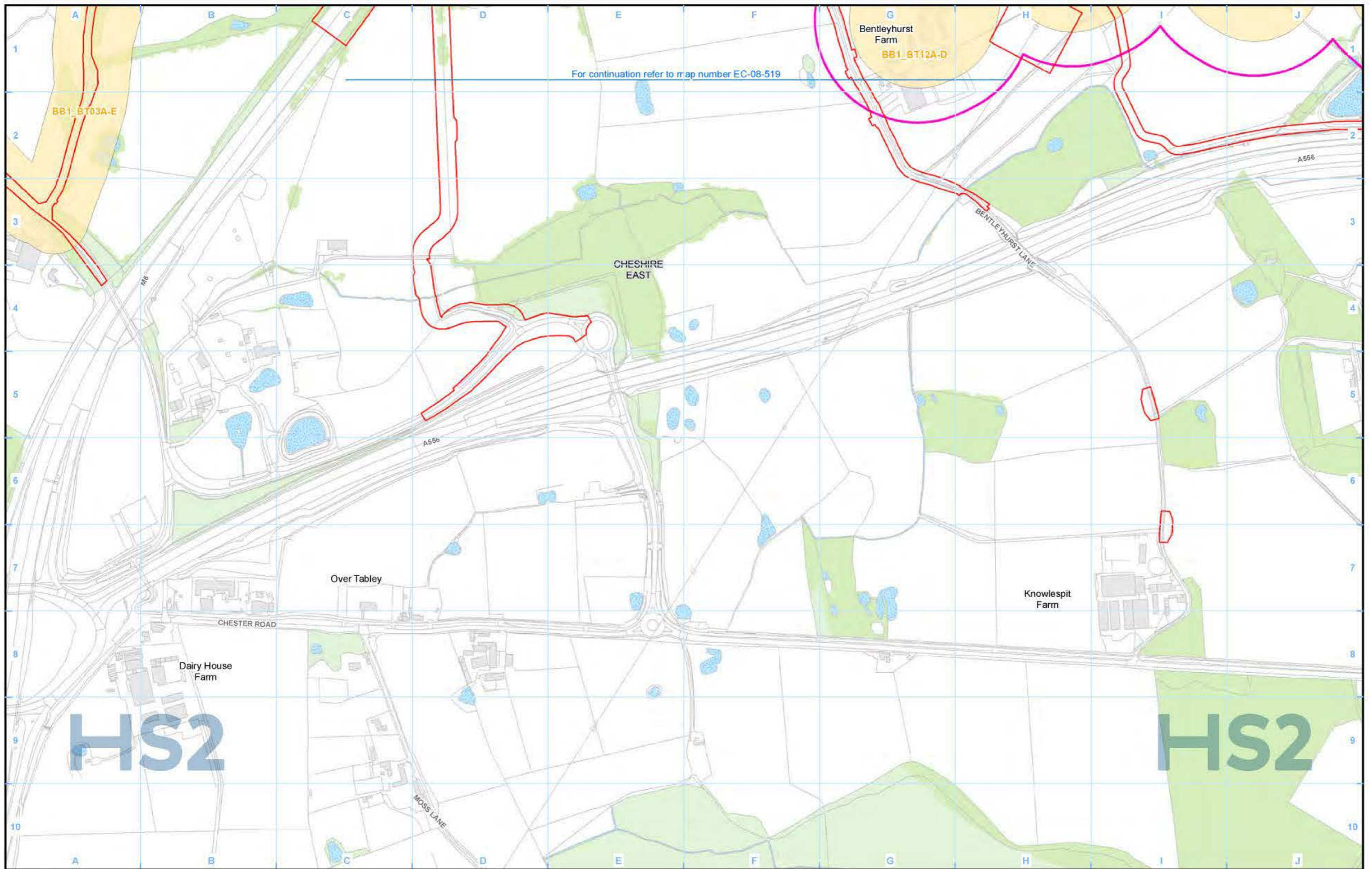
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Date: 21/04/22

Scale at A3: 1:5,000





For continuation refer to map number EC-08-519

**Legend**

<ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> <li> District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li> Watercourse</li> <li> Water body</li> <li> Woodland (verified by survey)</li> <li> Area contains new survey data</li> </ul>	<ul style="list-style-type: none"> <li> Species listed on Annex I of the Birds Directive</li> <li> Species listed on Schedule 1 of the Wildlife and Countryside Act</li> <li> Birds of Conservation Concern</li> <li> Other notable species relevant to assessment</li> </ul>	<ul style="list-style-type: none"> <li> Species listed on Annex I of the Birds Directive and Schedule 1 of the Wildlife and Countryside Act</li> <li> Breeding birds - survey extent</li> </ul>
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For full legend please refer to EC-08 - Bird Species Legend Page

Map Number: EC-08-519-R1

Map Name: Breeding Birds – Protected and Notable Species SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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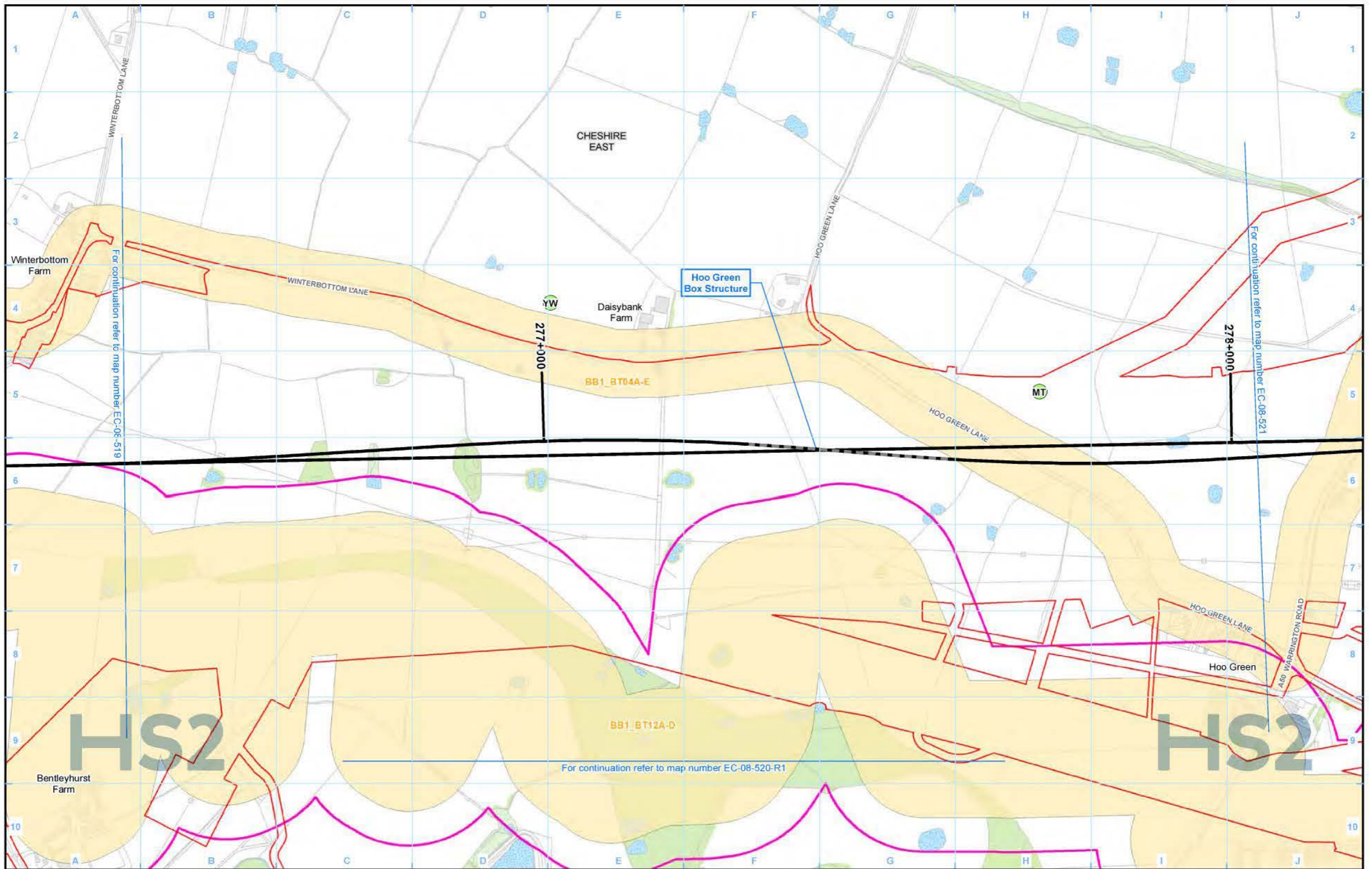
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Date: 21/04/22

Scale at A3: 1:5,000

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**Legend**

<ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> <li> District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li> Watercourse</li> <li> Water body</li> <li> Woodland (verified by survey)</li> <li> Area contains new survey data</li> </ul>	<ul style="list-style-type: none"> <li> Species listed on Annex I of the Birds Directive</li> <li> Species listed on Schedule 1 of the Wildlife and Countryside Act</li> <li> Species listed on Annex I of the Birds Directive and Schedule 1 of the Wildlife and Countryside Act</li> <li> Birds of Conservation Concern</li> <li> Other notable species relevant to assessment</li> </ul>	<ul style="list-style-type: none"> <li> Breeding birds - survey extent</li> </ul>
--	---	---	---

For full legend please refer to EC-08 - Bird Species Legend Page

Map Number: EC-08-520

Map Name: Breeding Birds – Protected and Notable Species SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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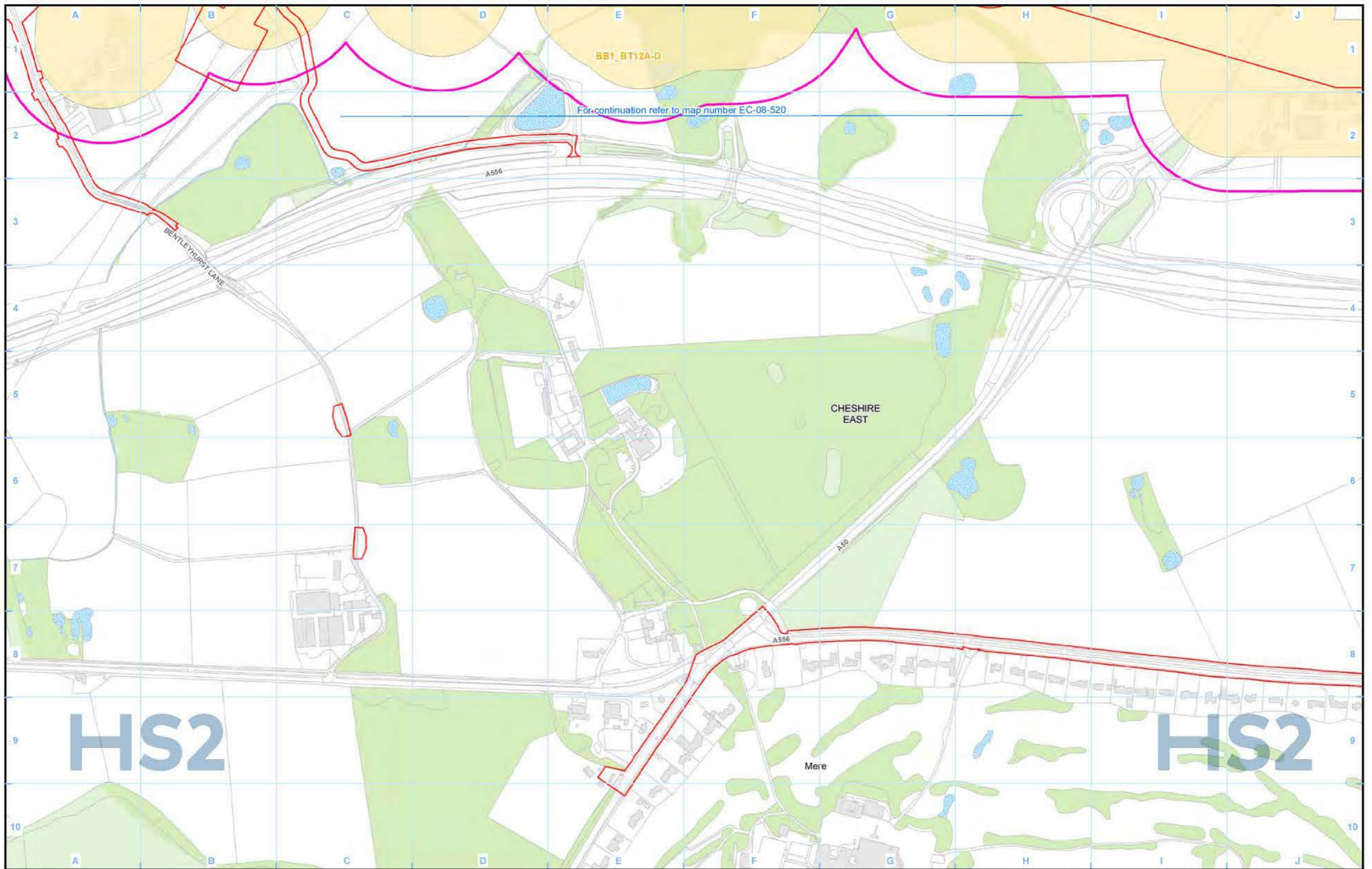
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For continuation refer to map number EC-08-520

**Legend**

<ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> <li> District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li> Watercourse</li> <li> Water body</li> <li> Woodland (verified by survey)</li> <li> Area contains new survey data</li> </ul>	<ul style="list-style-type: none"> <li> Species listed on Annex I of the Birds Directive</li> <li> Species listed on Schedule 1 of the Wildlife and Countryside Act</li> <li> Birds of Conservation Concern</li> <li> Other notable species relevant to assessment</li> </ul>	<ul style="list-style-type: none"> <li> Breeding birds - survey extent</li> </ul>
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For full legend please refer to EC-08 - Bird Species Legend Page

Map Number: EC-08-520-R1

Map Name: Breeding Birds – Protected and Notable Species SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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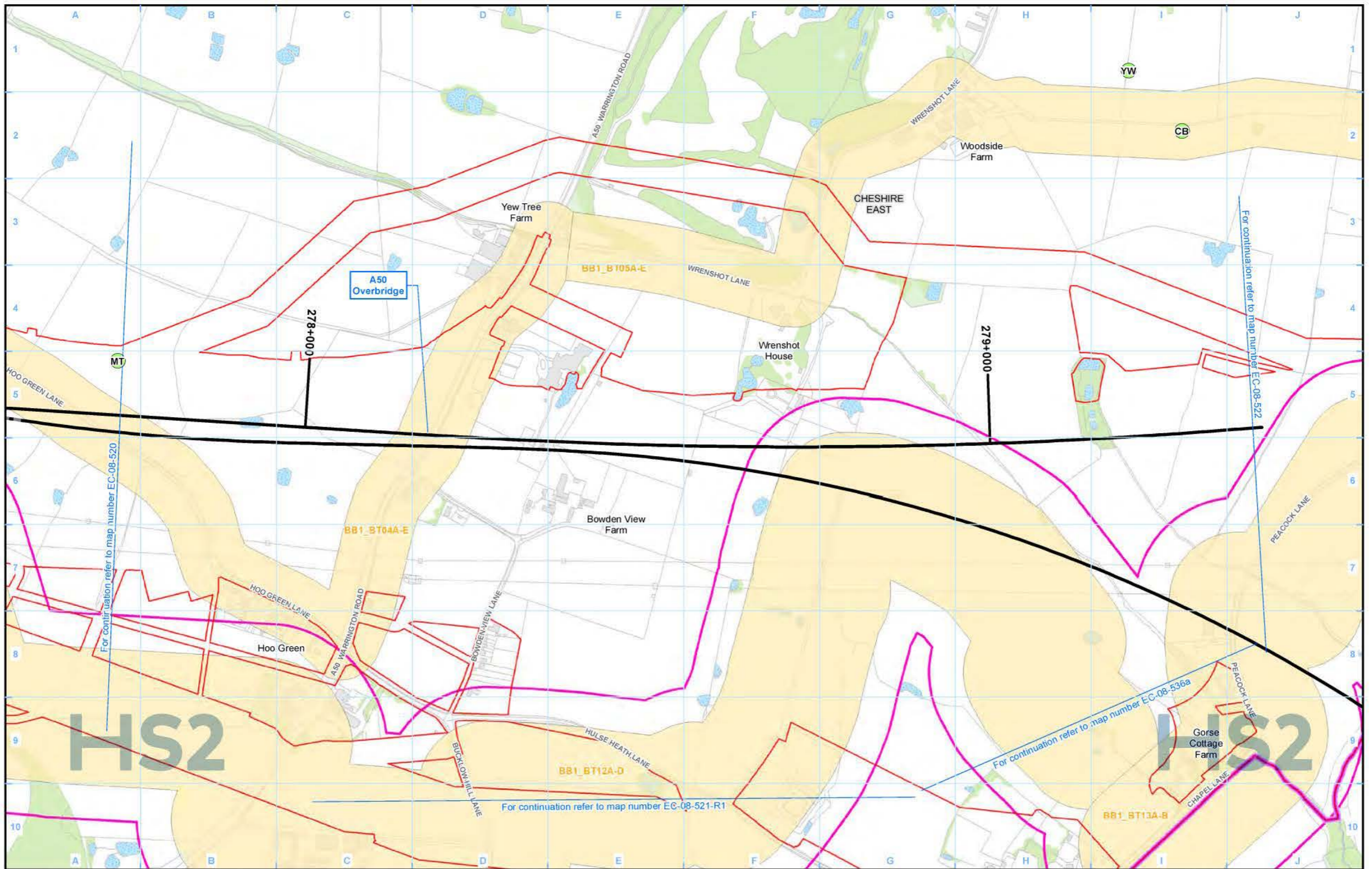
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**Legend**

<ul style="list-style-type: none"> <li>Route in tunnel</li> <li>Route on surface</li> <li>Depot, station, headhouse or portal building</li> <li>Land potentially required during construction</li> <li>Community area boundary</li> <li>County boundary</li> <li>District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li>Watercourse</li> <li>Water body</li> <li>Woodland (verified by survey)</li> <li>Area contains new survey data</li> </ul>	<ul style="list-style-type: none"> <li>Species listed on Annex I of the Birds Directive</li> <li>Species listed on Schedule 1 of the Wildlife and Countryside Act</li> </ul>	<ul style="list-style-type: none"> <li>Species listed on Annex I of the Birds Directive and Schedule 1 of the Wildlife and Countryside Act</li> <li>Birds of Conservation Concern</li> <li>Other notable species relevant to assessment</li> </ul>	<ul style="list-style-type: none"> <li>Breeding birds - survey extent</li> </ul>
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For full legend please refer to EC-08 - Bird Species Legend Page

Map Number: EC-08-521

Map Name: Breeding Birds – Protected and Notable Species SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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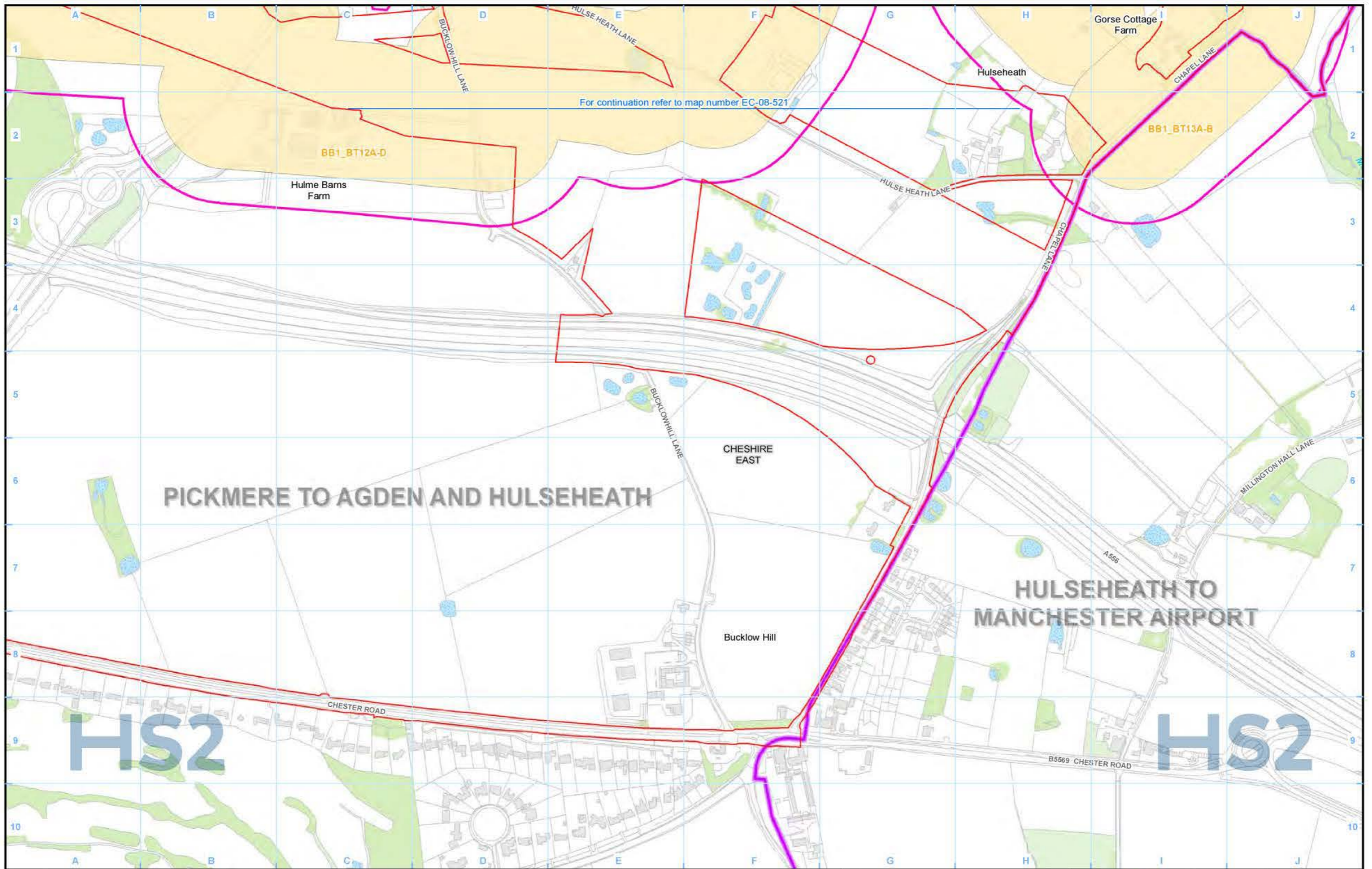
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**Legend**

<ul style="list-style-type: none"> <li>Route in tunnel</li> <li>Route on surface</li> <li>Depot, station, headhouse or portal building</li> <li>Land potentially required during construction</li> <li>Community area boundary</li> <li>County boundary</li> <li>District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li>Watercourse</li> <li>Water body</li> <li>Woodland (verified by survey)</li> <li>Area contains new survey data</li> </ul>	<ul style="list-style-type: none"> <li>Species listed on Annex I of the Birds Directive</li> <li>Species listed on Schedule 1 of the Wildlife and Countryside Act</li> </ul>	<ul style="list-style-type: none"> <li>Species listed on Annex I of the Birds Directive and Schedule 1 of the Wildlife and Countryside Act</li> <li>Birds of Conservation Concern</li> <li>Other notable species relevant to assessment</li> </ul>	<ul style="list-style-type: none"> <li>Breeding birds - survey extent</li> </ul>
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For full legend please refer to EC-08 - Bird Species Legend Page

Map Number: EC-08-521-R1

Map Name: Breeding Birds – Protected and Notable Species SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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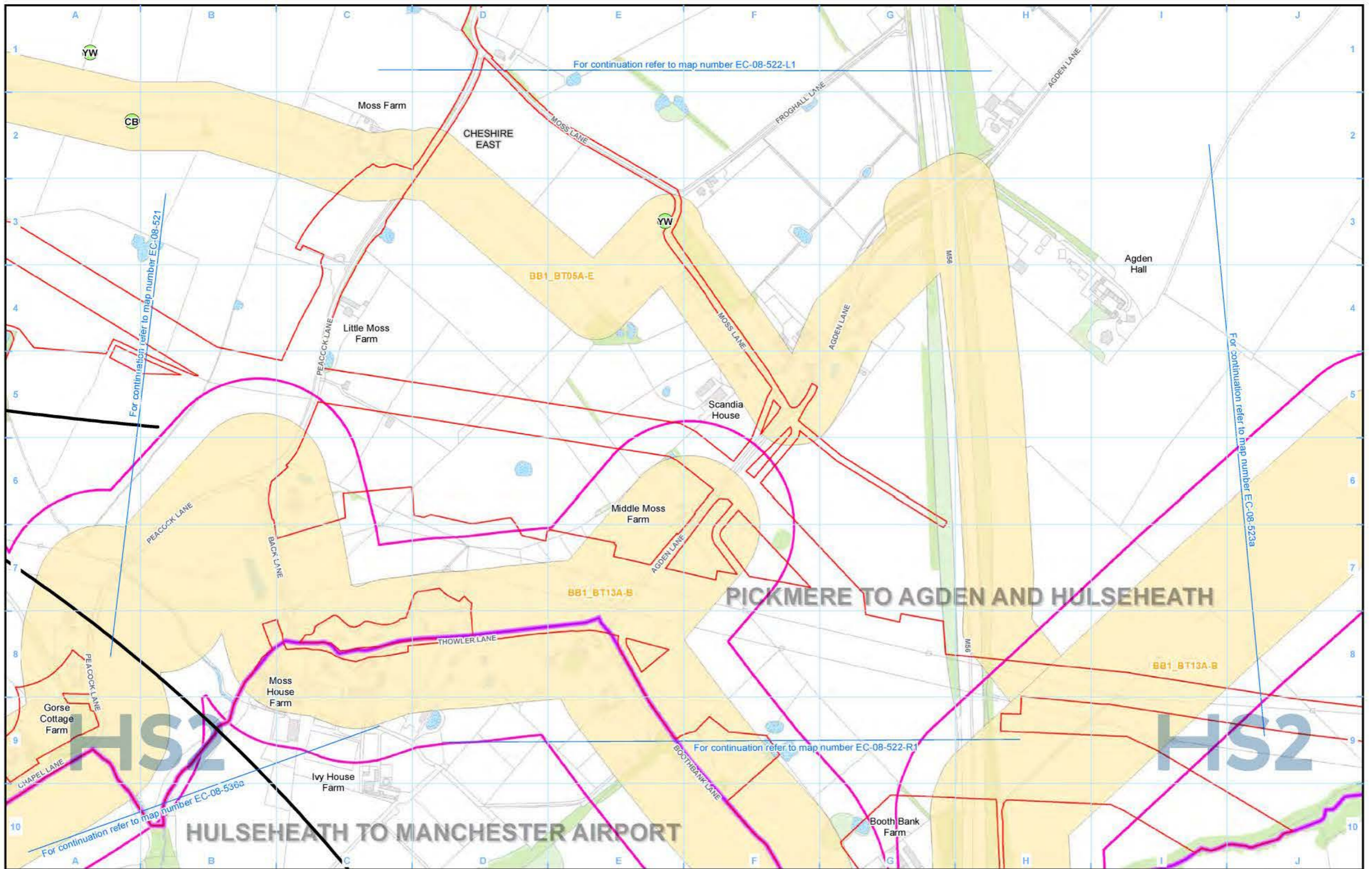
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Date: 21/04/22

Scale at A3: 1:5,000

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**Legend**

Route in tunnel	Watercourse	Species listed on Annex I of the Birds Directive	Species listed on Annex I of the Birds Directive and Schedule 1 of the Wildlife and Countryside Act	Breeding birds - survey extent
Route on surface	Water body	Species listed on Schedule 1 of the Wildlife and Countryside Act	Birds of Conservation Concern	
Depot, station, headhouse or portal building	Woodland (verified by survey)	Other notable species relevant to assessment		
Land potentially required during construction	Area contains new survey data			
Community area boundary				
County boundary				
District/Borough boundary				

For full legend please refer to EC-08 - Bird Species Legend Page

Map Number: EC-08-522

Map Name: Breeding Birds – Protected and Notable Species SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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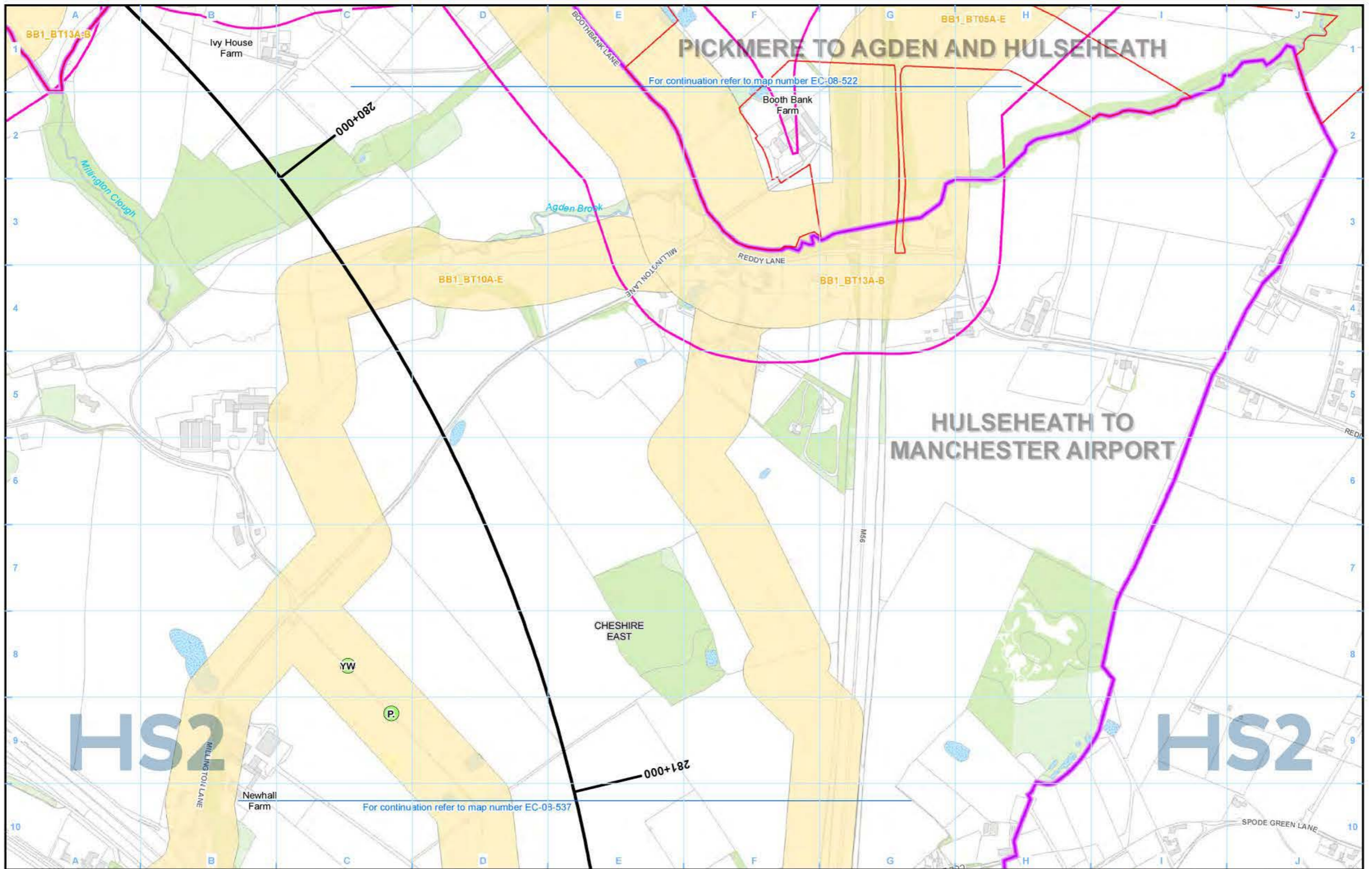
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Date: 21/04/22

Scale at A3: 1:5,000

0 50 100 150 200 Metres





# PICKMERE TO AGDEN AND HULSEHEATH

For continuation refer to map number EC-08-522

# HULSEHEATH TO MANCHESTER AIRPORT

**Legend**

Route in tunnel	Watercourse	Species listed on Annex I of the Birds Directive	Species listed on Annex I of the Birds Directive and Schedule 1 of the Wildlife and Countryside Act	Breeding birds - survey extent
Route on surface	Water body	Species listed on Schedule 1 of the Wildlife and Countryside Act	Birds of Conservation Concern	Other notable species relevant to assessment
Depot, station, headhouse or portal building	Woodland (verified by survey)	Area contains new survey data		
Land potentially required during construction				
Community area boundary				
County boundary				
District/Borough boundary				

For full legend please refer to EC-08 - Bird Species Legend Page

Map Number: EC-08-522-R1

Map Name: Breeding Birds – Protected and Notable Species SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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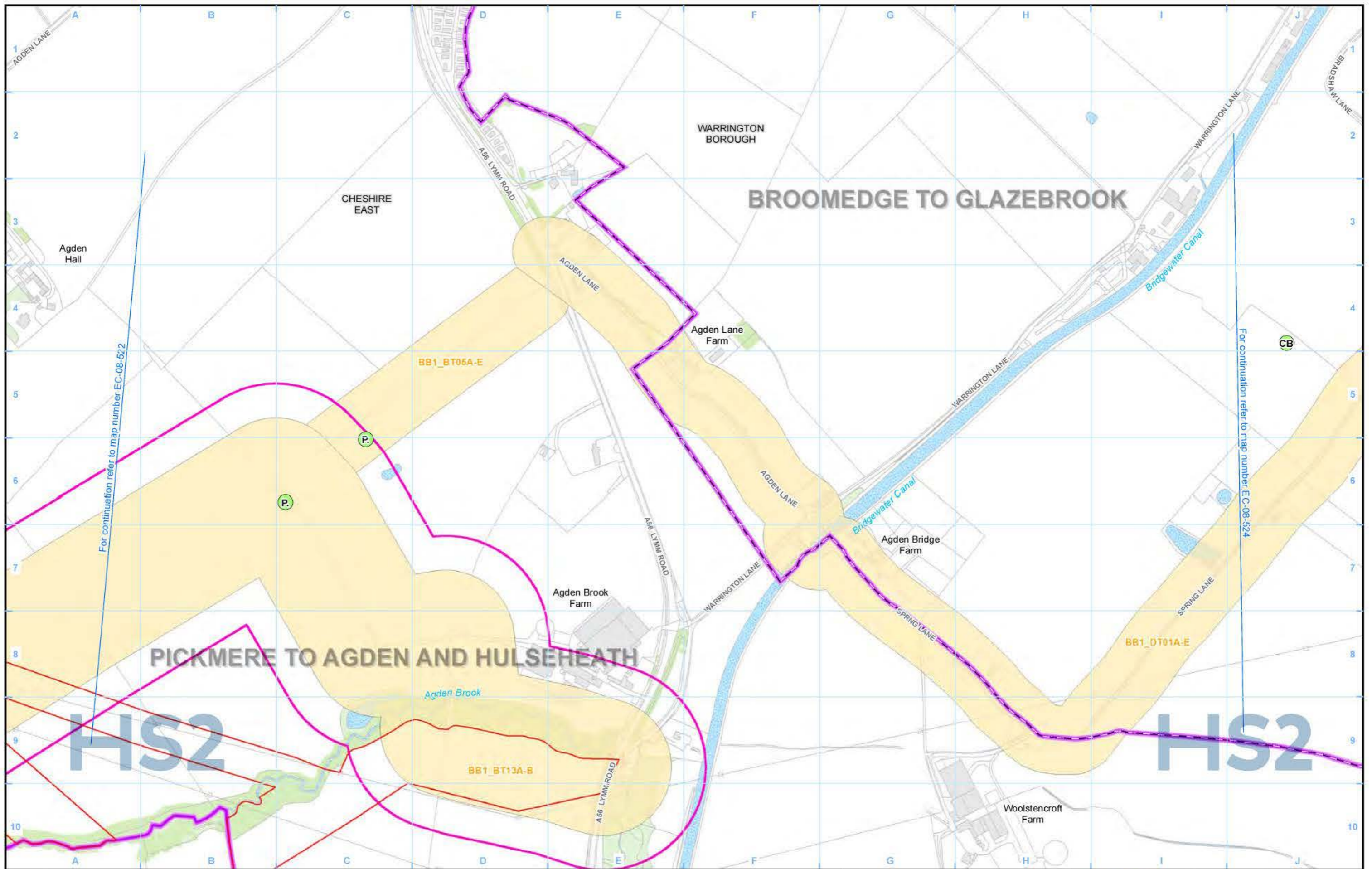
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Scale at A3: 1:5,000





**Legend**

<ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> <li> District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li> Watercourse</li> <li> Water body</li> <li> Woodland (verified by survey)</li> <li> Area contains new survey data</li> </ul>	<ul style="list-style-type: none"> <li> Species listed on Annex I of the Birds Directive</li> <li> Species listed on Schedule 1 of the Wildlife and Countryside Act</li> </ul>	<ul style="list-style-type: none"> <li> Species listed on Annex I of the Birds Directive and Schedule 1 of the Wildlife and Countryside Act</li> <li> Birds of Conservation Concern</li> <li> Other notable species relevant to assessment</li> </ul>	<ul style="list-style-type: none"> <li> Breeding birds - survey extent</li> </ul>
--	---	--	---	---

For full legend please refer to EC-08 - Bird Species Legend Page

Map Number: EC-08-523a

Map Name: Breeding Birds – Protected and Notable Species SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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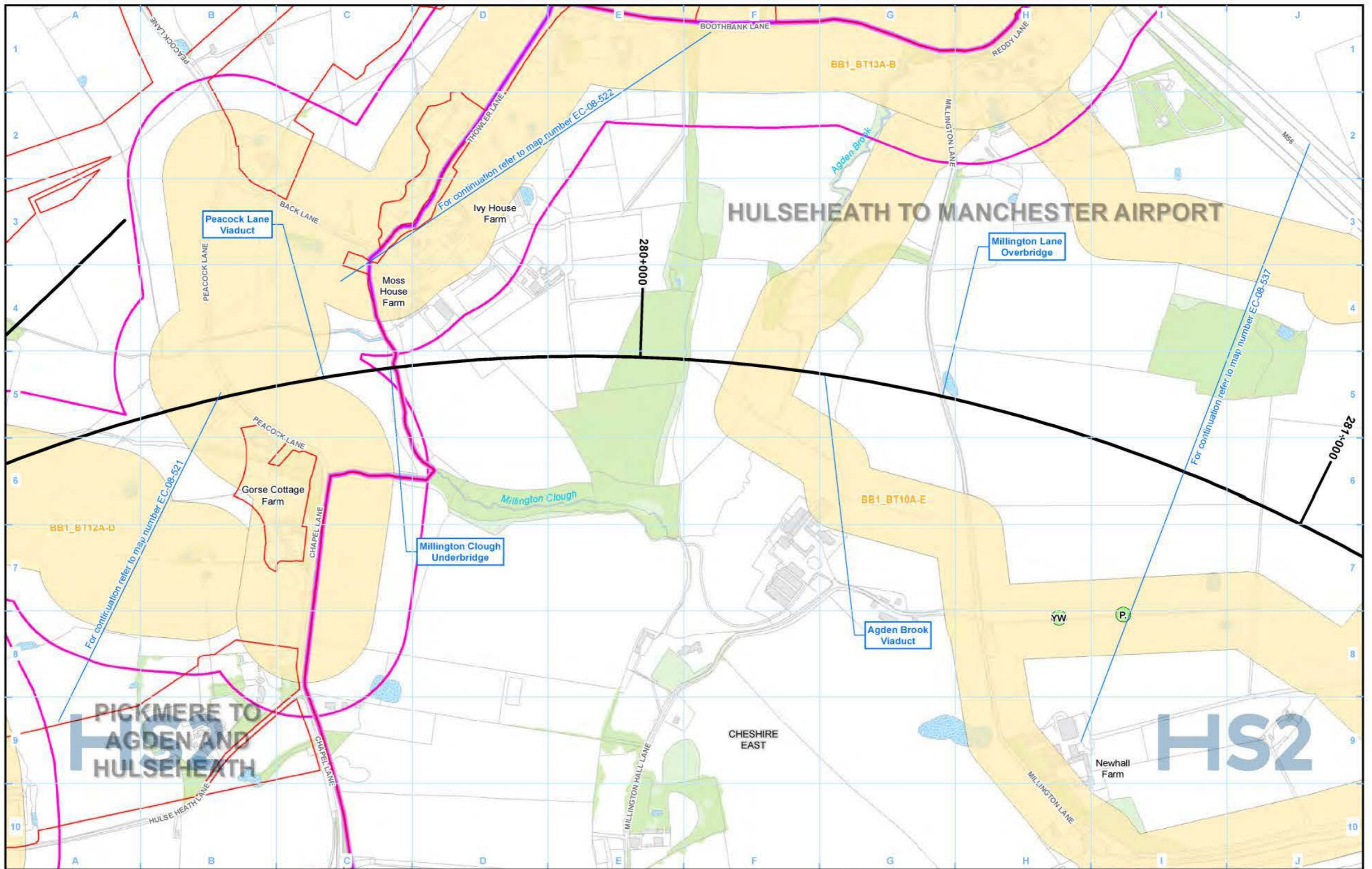
Date: 21/04/22

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0 50 100 150 200 Metres

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**Legend**

Route in tunnel	Watercourse	Species listed on Annex I of the Birds Directive	Species listed on Annex I of the Birds Directive and Schedule 1 of the Wildlife and Countryside Act	Breeding birds - survey extent
Route on surface	Water body	Species listed on Schedule 1 of the Wildlife and Countryside Act	Birds of Conservation Concern	
Depot, station, headhouse or portal building	Woodland (verified by survey)	Other notable species relevant to assessment		
Land potentially required during construction	Area contains new survey data			
Community area boundary				
County boundary				
District/Borough boundary				

For full legend please refer to EC-08 - Bird Species Legend Page

Map Number: EC-08-536a

Map Name: Breeding Birds – Protected and Notable Species SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulse Heath

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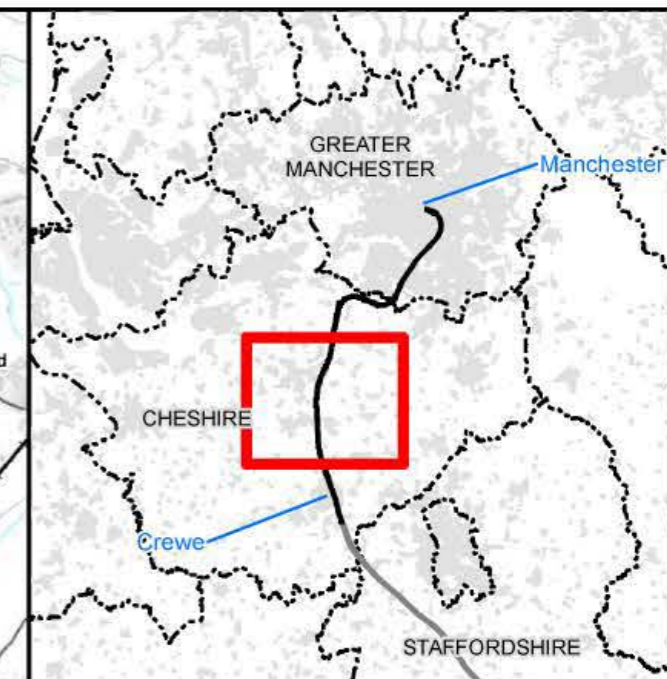
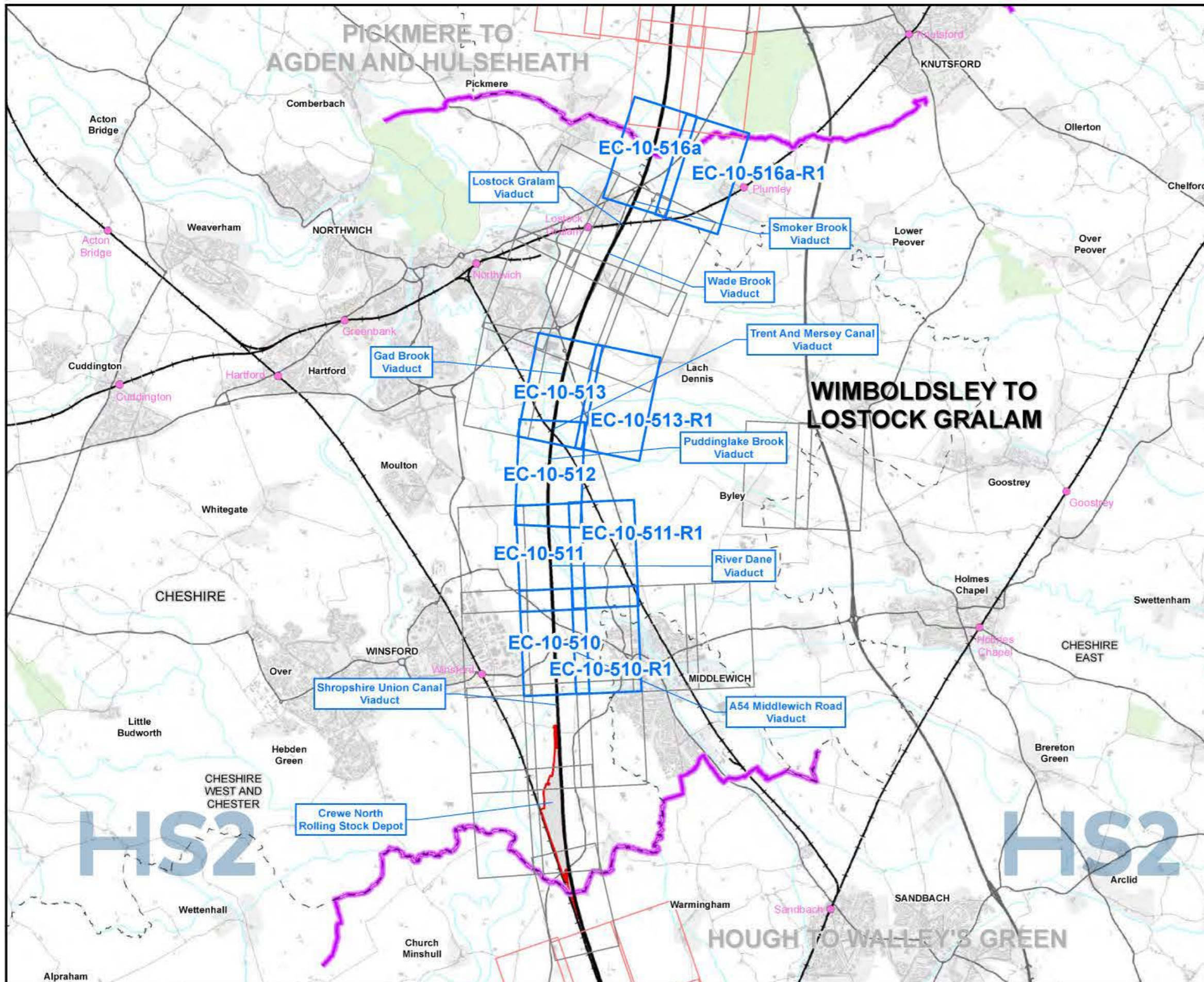


## **High Speed Rail (Crewe – Manchester)**

**Background information and data accompanying  
Supplementary Environmental Statement 1 and  
Additional Provision 1 Environmental Statement**

EC-10 – Phase 2 Habitat Survey





**Map Series Information:**

This map series shows the extent of detailed habitat surveys undertaken to inform the Environmental Statement. The map shows the location of hedgerows that qualify as 'important hedgerows' under the wildlife and landscape criteria of the Hedgerows Regulations (1997).

**Main Map Legend**

Route in tunnel	Map sheets included in this community area with amendment
Route on surface	Map sheet 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: EC-10-INDEX-MA02

Map Name: Index Map of:  
Phase 2 Habitat Survey  
SES1 and AP1 ES  
Community Area MA02:  
Wimboldsley to Lostock Gralam

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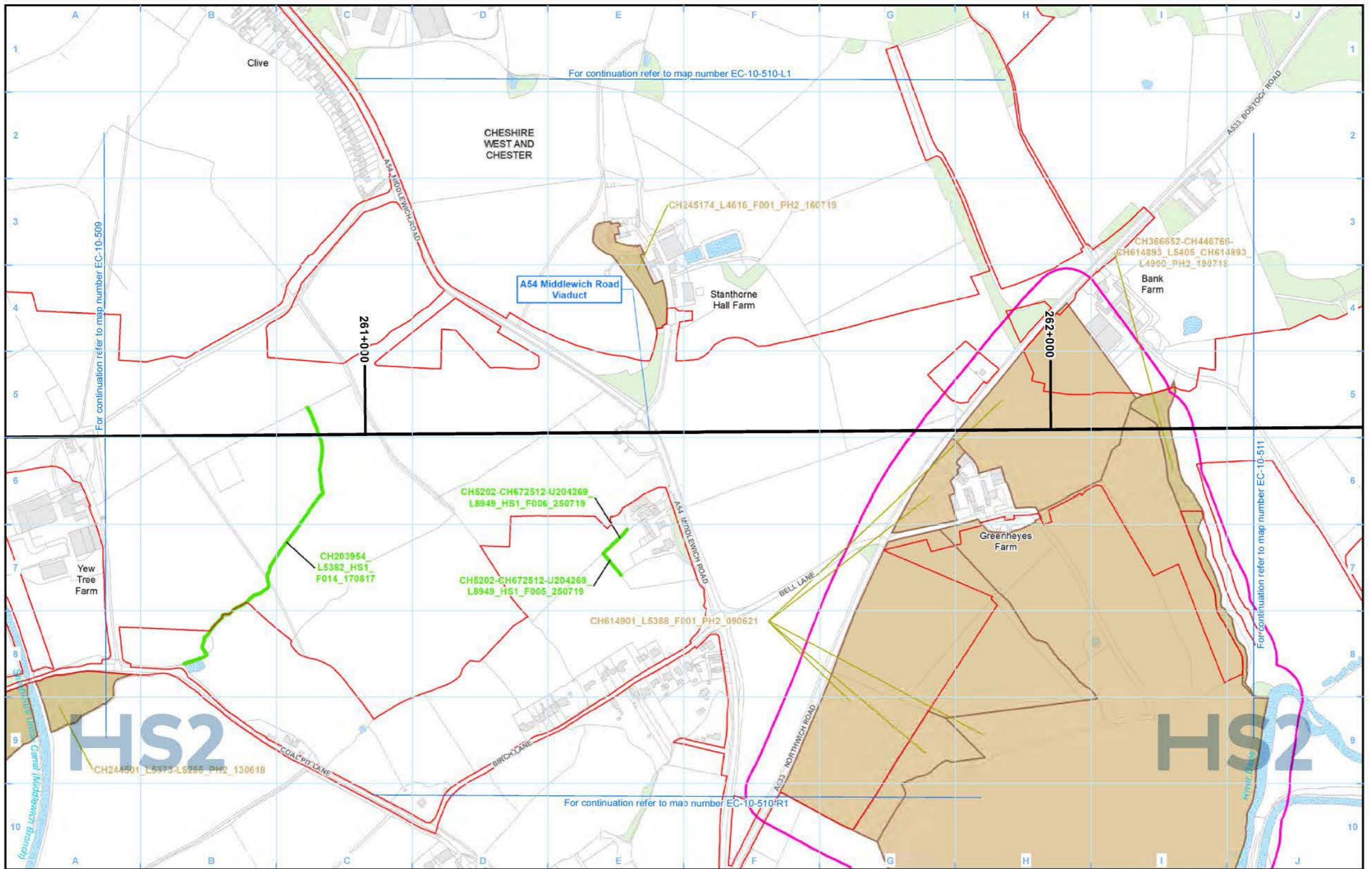
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**Legend**

Route in tunnel	Watercourse	National Vegetation Classification survey	River macrophyte survey extent
Route on surface	Water body	Ditch vegetation survey	River habitat survey extent
Depot, station, headhouse or portal building	Woodland (verified by survey)	'Important' Hedgerow confirmed by field survey	Lake habitat
Land potentially required during construction	Area contains new survey data	Possible 'Important Hedgerow' - no access available for survey	
Community area boundary			
County boundary			
District/Borough boundary			

Map Number: EC-10-510

Map Name: Phase 2 Habitat Survey  
SES1 and AP1 ES

Community Area MA02:  
Wimboldsley to Lostock Gralam

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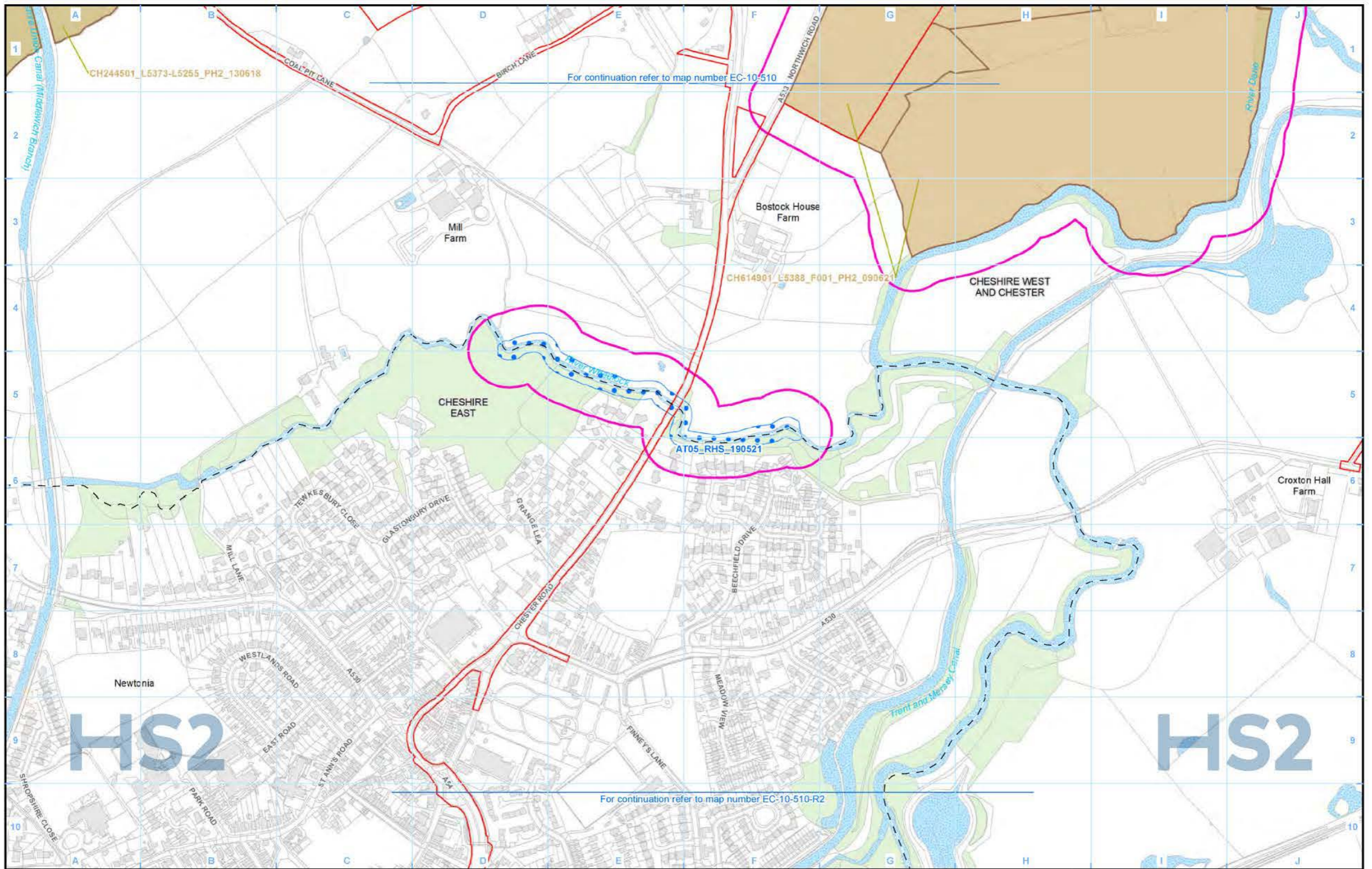
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Legend			

Map Number	EC-10-510-R1
Map Name	Phase 2 Habitat Survey SES1 and AP1 ES
	Community Area MA02: Wimboldsley to Lostock Gralam

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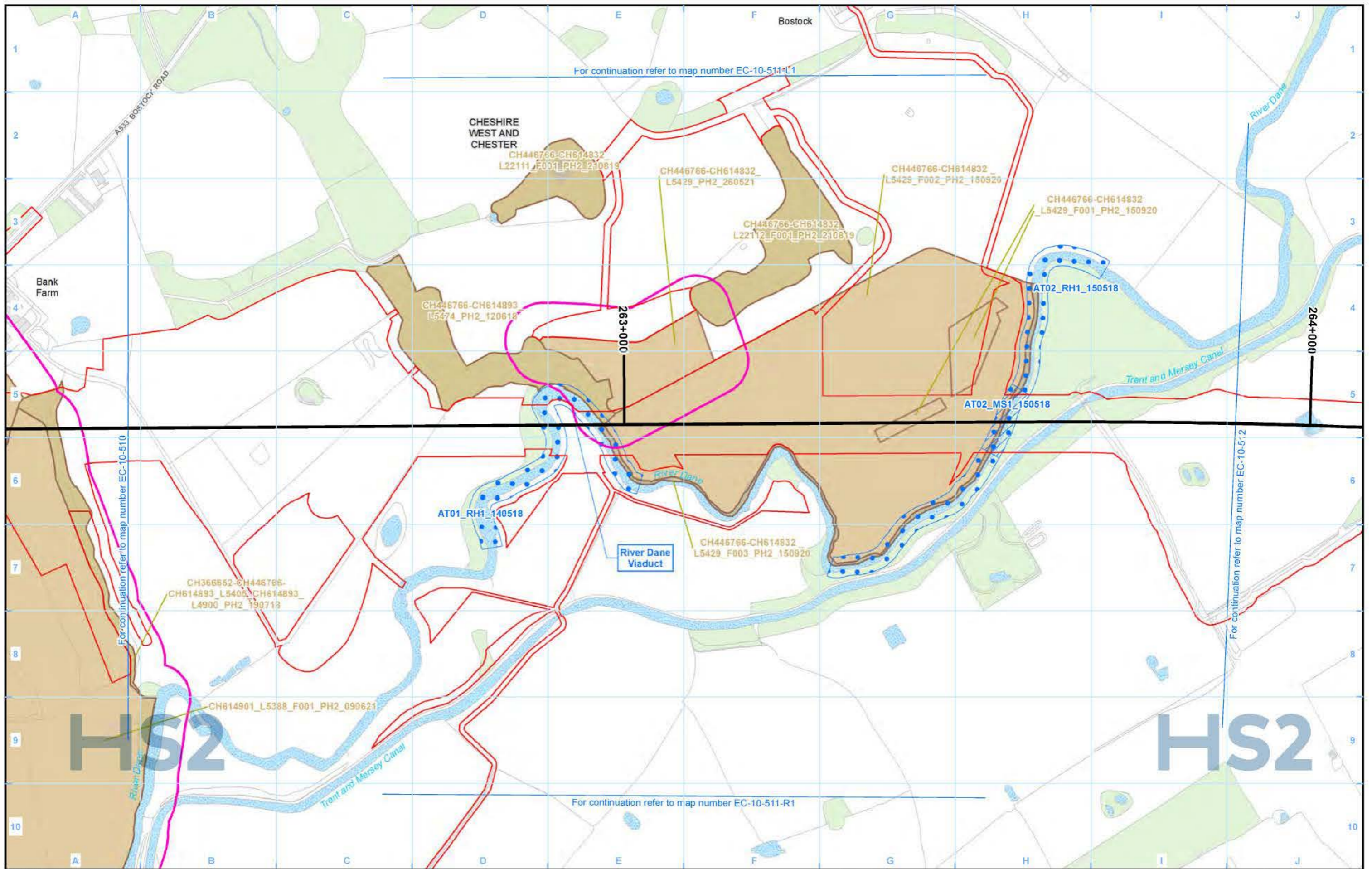
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Legend			

Map Number	EC-10-511
Map Name	Phase 2 Habitat Survey SES1 and AP1 ES
	Community Area MA02: Wimboldsley to Lostock Gralam

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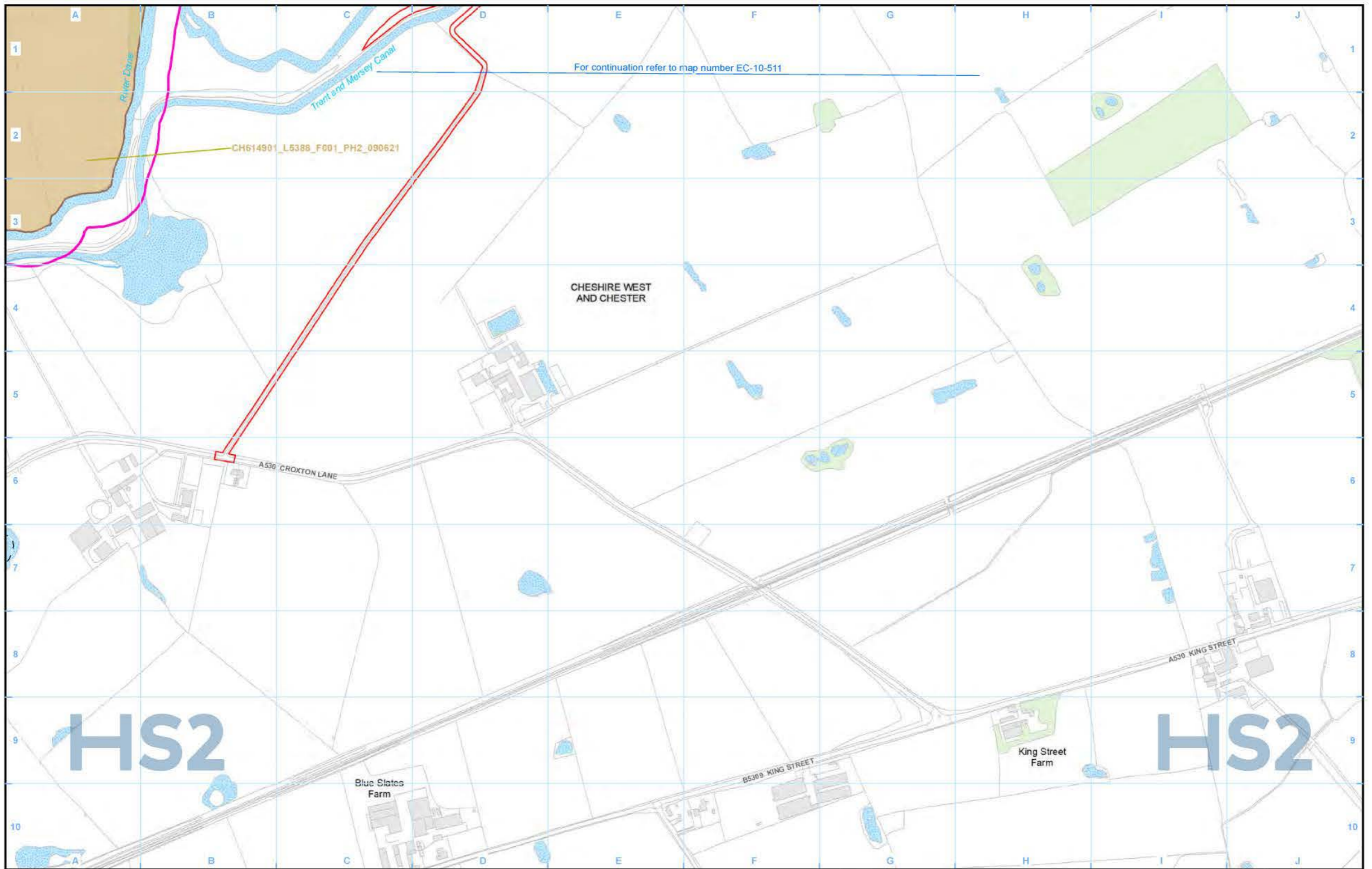
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Date: 21/04/22



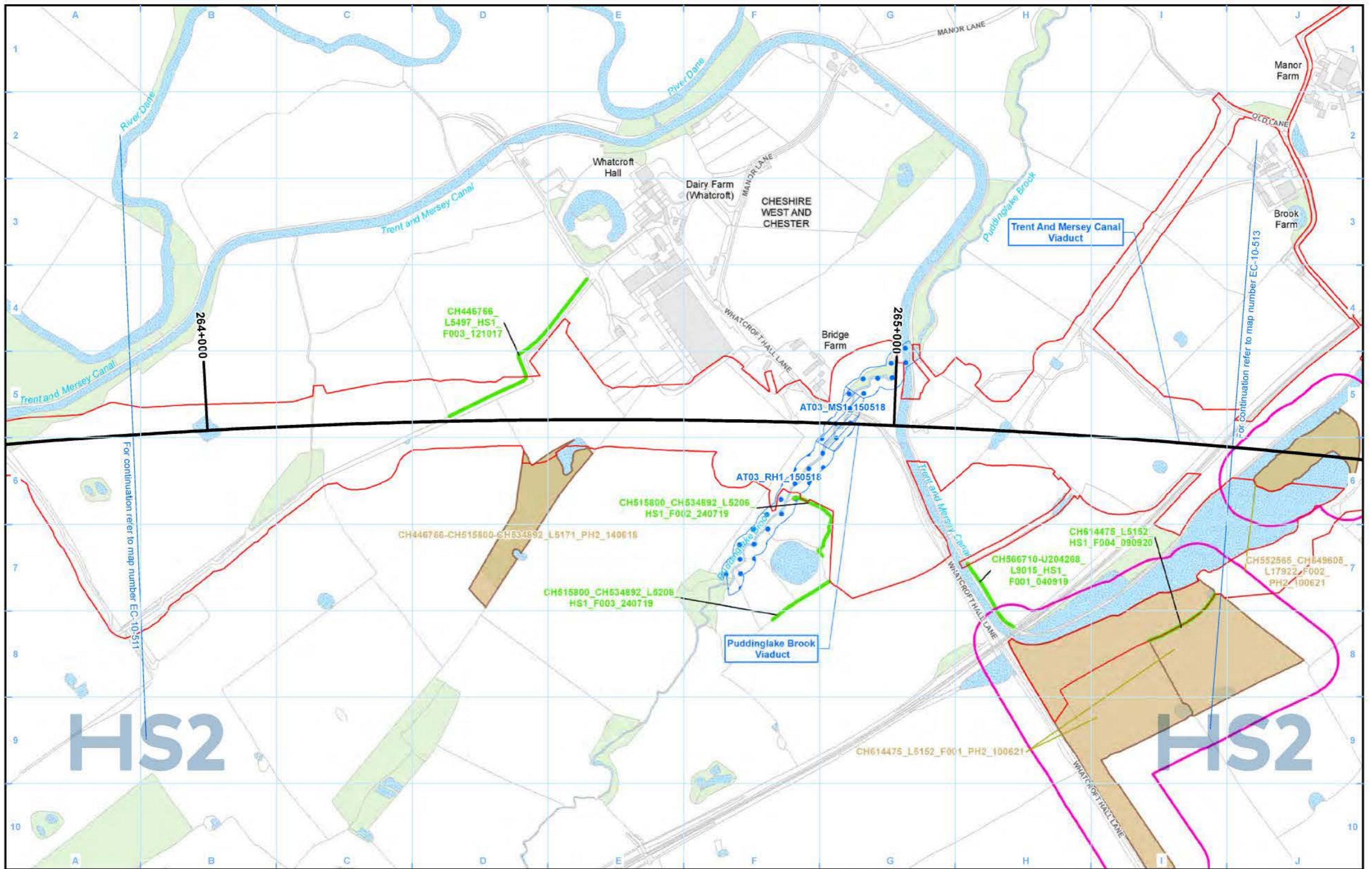


For continuation refer to map number EC-10-511

CH614901\_L5388\_F001\_PH2\_090621

<b>Legend</b> <ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> <li> District/Borough boundary</li> </ul>		<ul style="list-style-type: none"> <li> Watercourse</li> <li> Water body</li> <li> Woodland (verified by survey)</li> <li> Area contains new survey data</li> </ul>		<ul style="list-style-type: none"> <li> National Vegetation Classification survey</li> <li> Ditch vegetation survey</li> <li> 'Important' Hedgerow confirmed by field survey</li> <li> Possible 'Important Hedgerow' - no access available for survey</li> </ul>		<ul style="list-style-type: none"> <li> River macrophyte survey extent</li> <li> River habitat survey extent</li> <li> Lake habitat</li> </ul>	
<b>Map Number</b> EC-10-511-R1				<small>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.</small>			
<b>Map Name</b> Phase 2 Habitat Survey SES1 and AP1 ES		<small>Registered in England. Registration number: 06791086 Registered office: Two Simehill, Snow Hill Queensway, Birmingham B4 6QA.</small>		<b>Scale at A3: 1:5,000</b> 		<small>© Crown copyright and database rights 2021 OS 100040190</small>	
<b>Community Area MA02:</b> Wimboldsley to Lostock Gralam		<small>Doc Number: 2PT24-MWJ-EV-MAP-M000-003346-P01</small>		<small>Date: 21/04/22</small>			





**Legend**

Route in tunnel	Watercourse	National Vegetation Classification survey	River macrophyte survey extent
Route on surface	Water body	Ditch vegetation survey	River habitat survey extent
Depot, station, headhouse or portal building	Woodland (verified by survey)	'Important' Hedgerow confirmed by field survey	Lake habitat
Land potentially required during construction	Area contains new survey data	Possible 'Important Hedgerow' - no access available for survey	
Community area boundary			
County boundary			
District/Borough boundary			

Map Number: EC-10-512

Map Name: Phase 2 Habitat Survey  
SES1 and AP1 ES

Community Area MA02:  
Wimboldsley to Lostock Gralam

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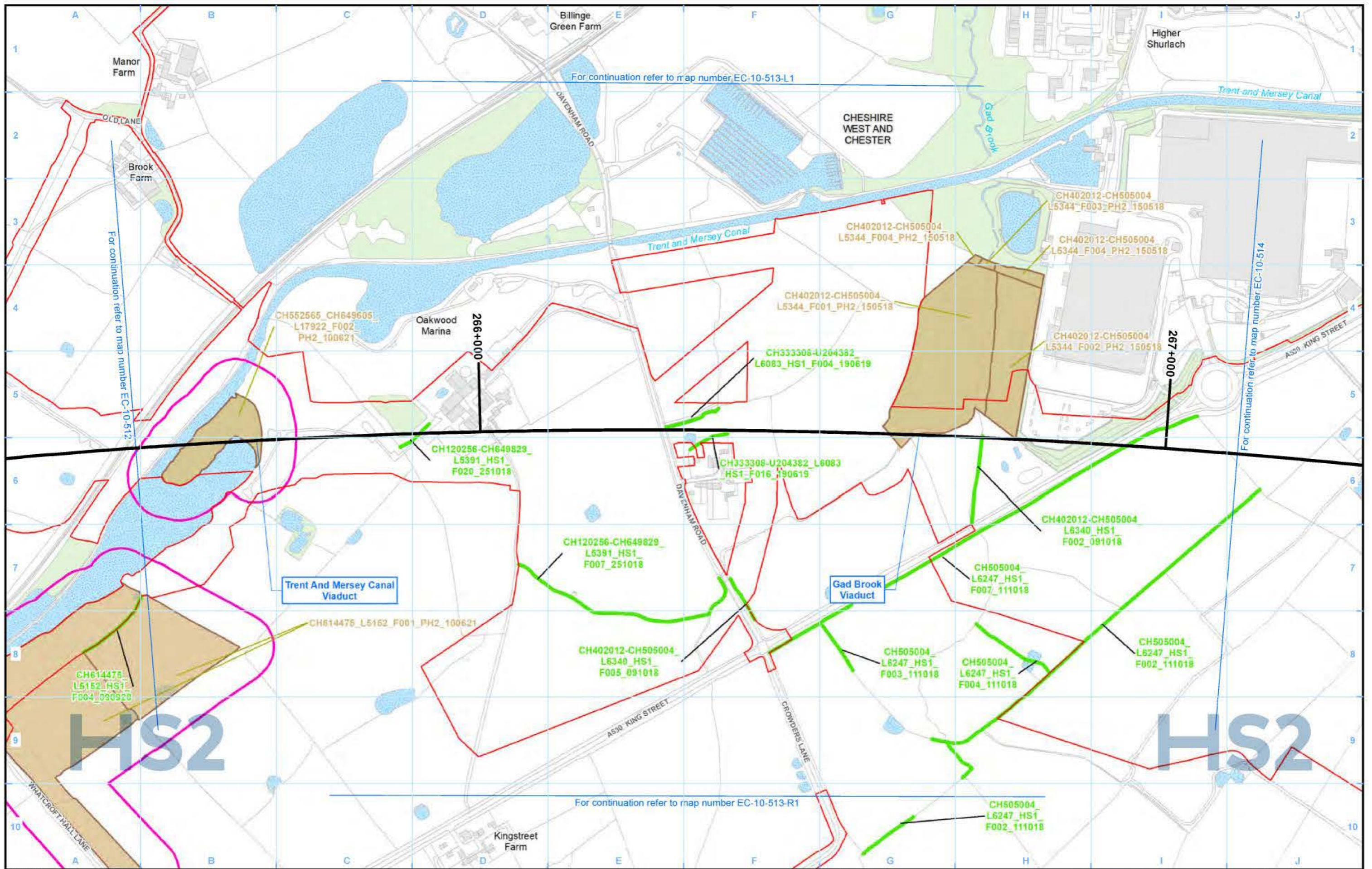
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Date: 21/04/22





Legend			
Route in tunnel	Watercourse	National Vegetation Classification survey	River macrophyte survey extent
Route on surface	Water body	Ditch vegetation survey	River habitat survey extent
Depot, station, headhouse or portal building	Woodland (verified by survey)	'Important' Hedgerow confirmed by field survey	Lake habitat
Land potentially required during construction	Area contains new survey data	Possible 'Important Hedgerow' - no access available for survey	
Community area boundary			
County boundary			
District/Borough boundary			

Map Number:	EC-10-513
Map Name:	Phase 2 Habitat Survey SES1 and AP1 ES
	Community Area MA02: Wimboldsley to Lostock Gralam

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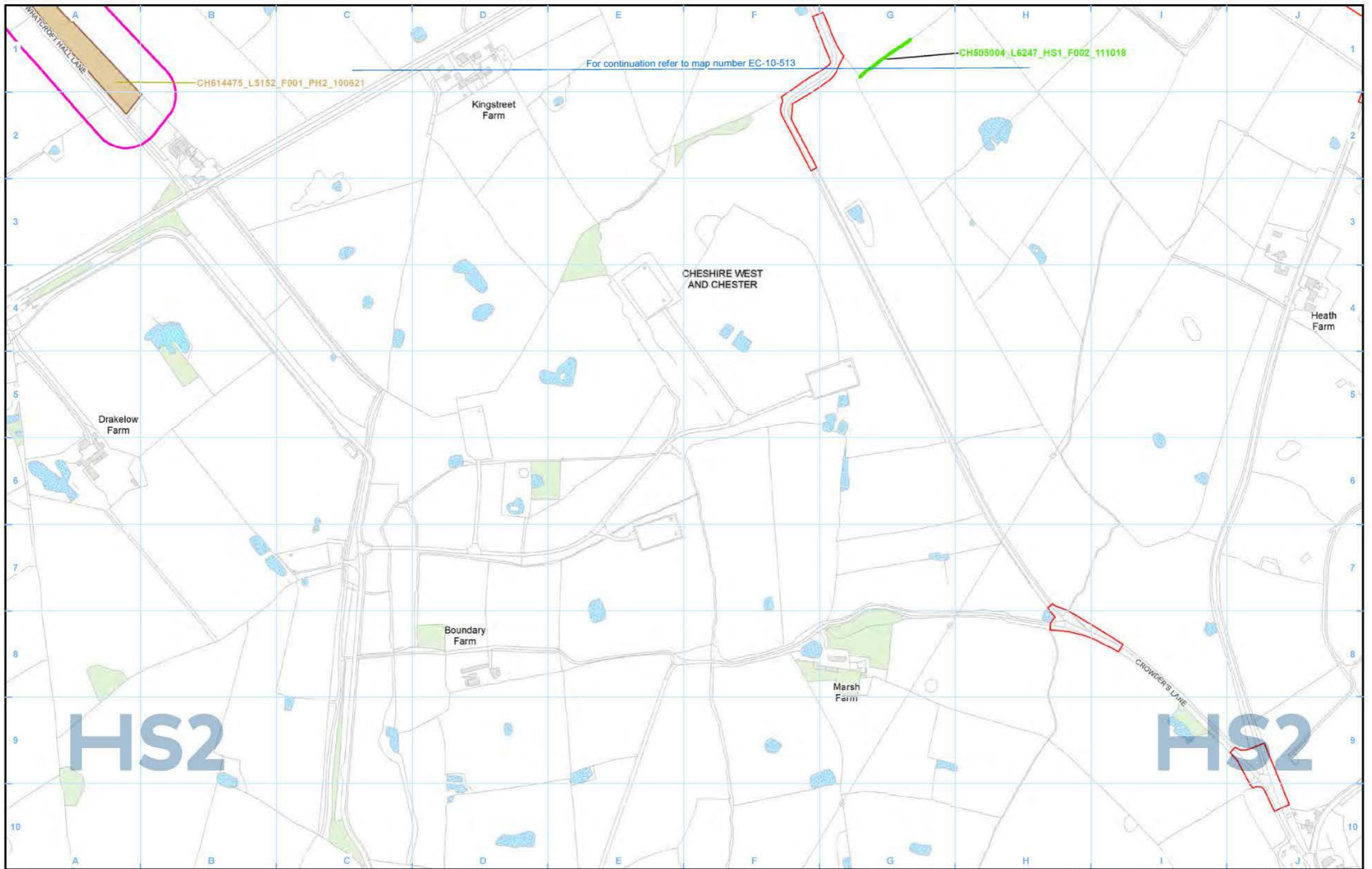
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For continuation refer to map number EC-10-513

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Legend			

Map Number	EC-10-513-R1
Map Name	Phase 2 Habitat Survey SES1 and AP1 ES
Community Area MA02: Wimboldsley to Lostock Gralam	

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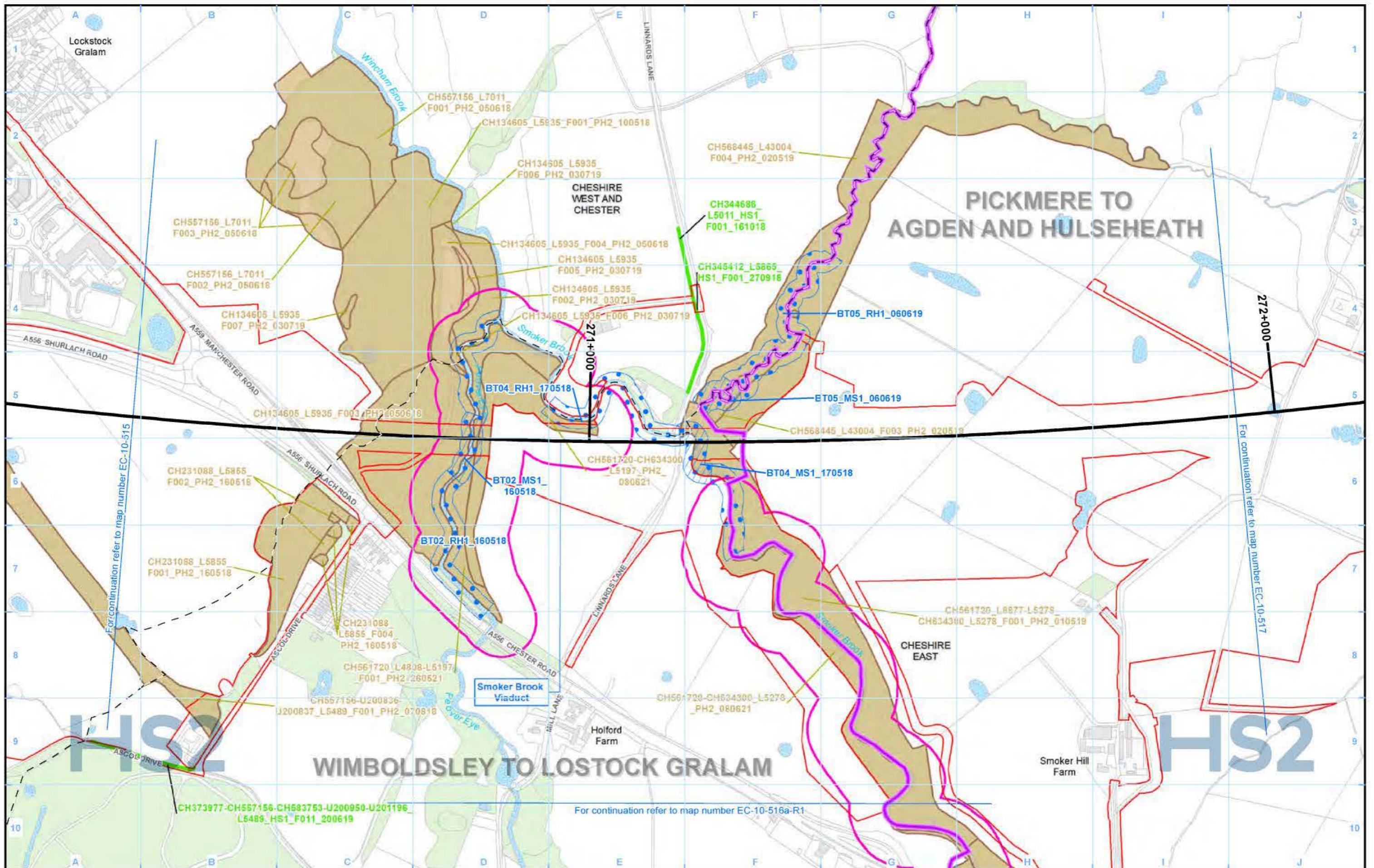
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Legend			

Map Number	EC-10-516a
Map Name	Phase 2 Habitat Survey SES1 and AP1 ES
	Community Area MA02: Wimboldsley to Lostock Gralam

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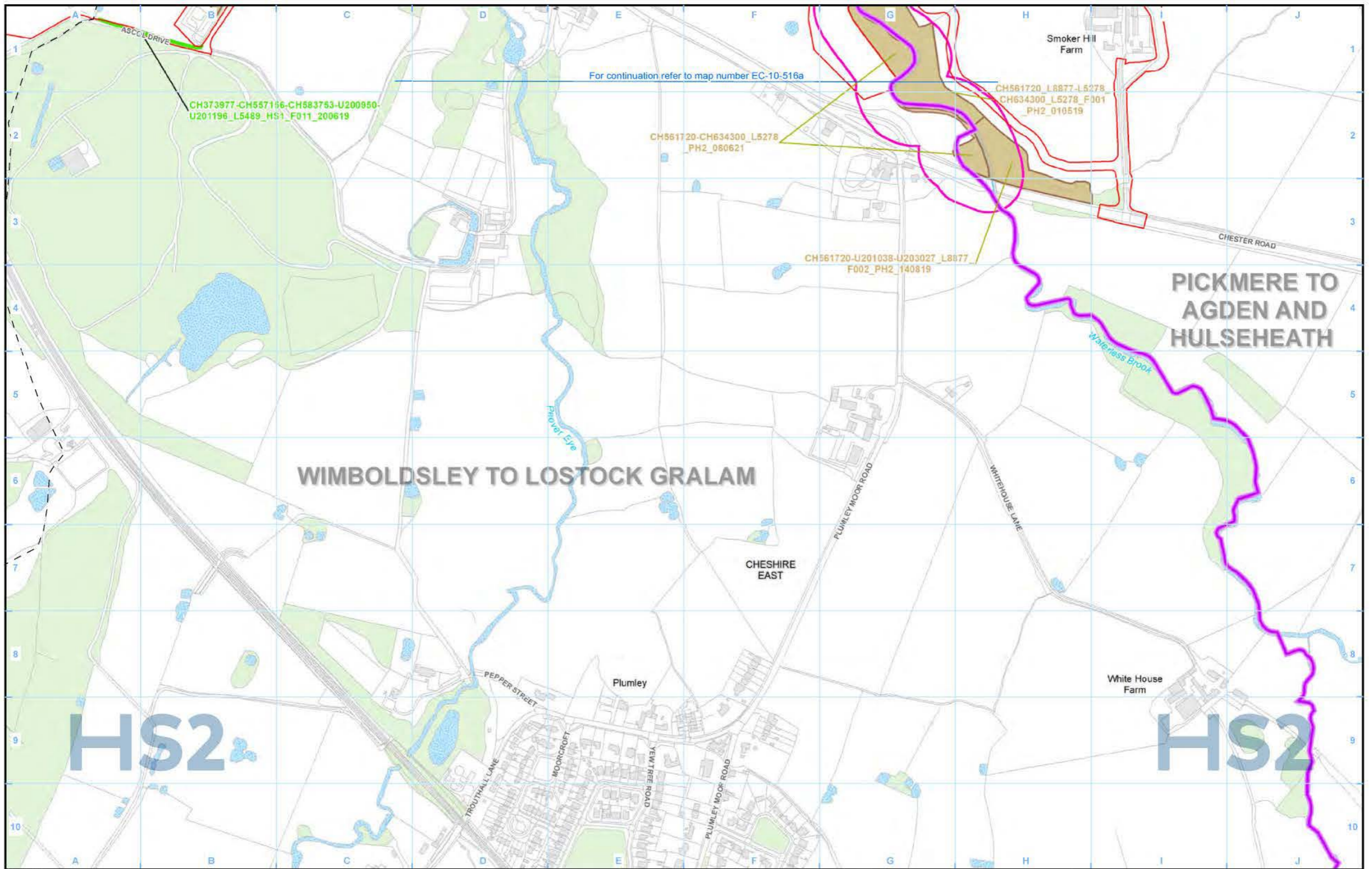
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Legend			

Map Number	EC-10-516a-R1
Map Name	Phase 2 Habitat Survey SES1 and AP1 ES
	Community Area MA02: Wimboldsley to Lostock Gralam

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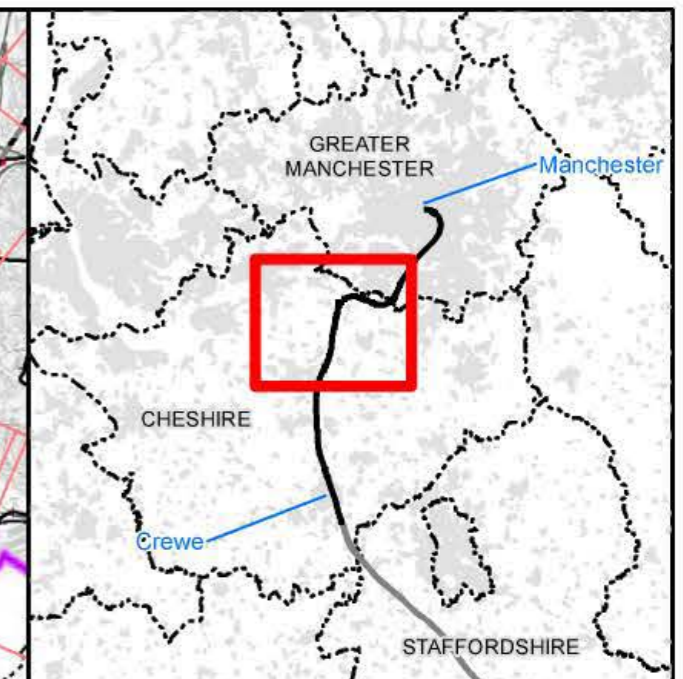
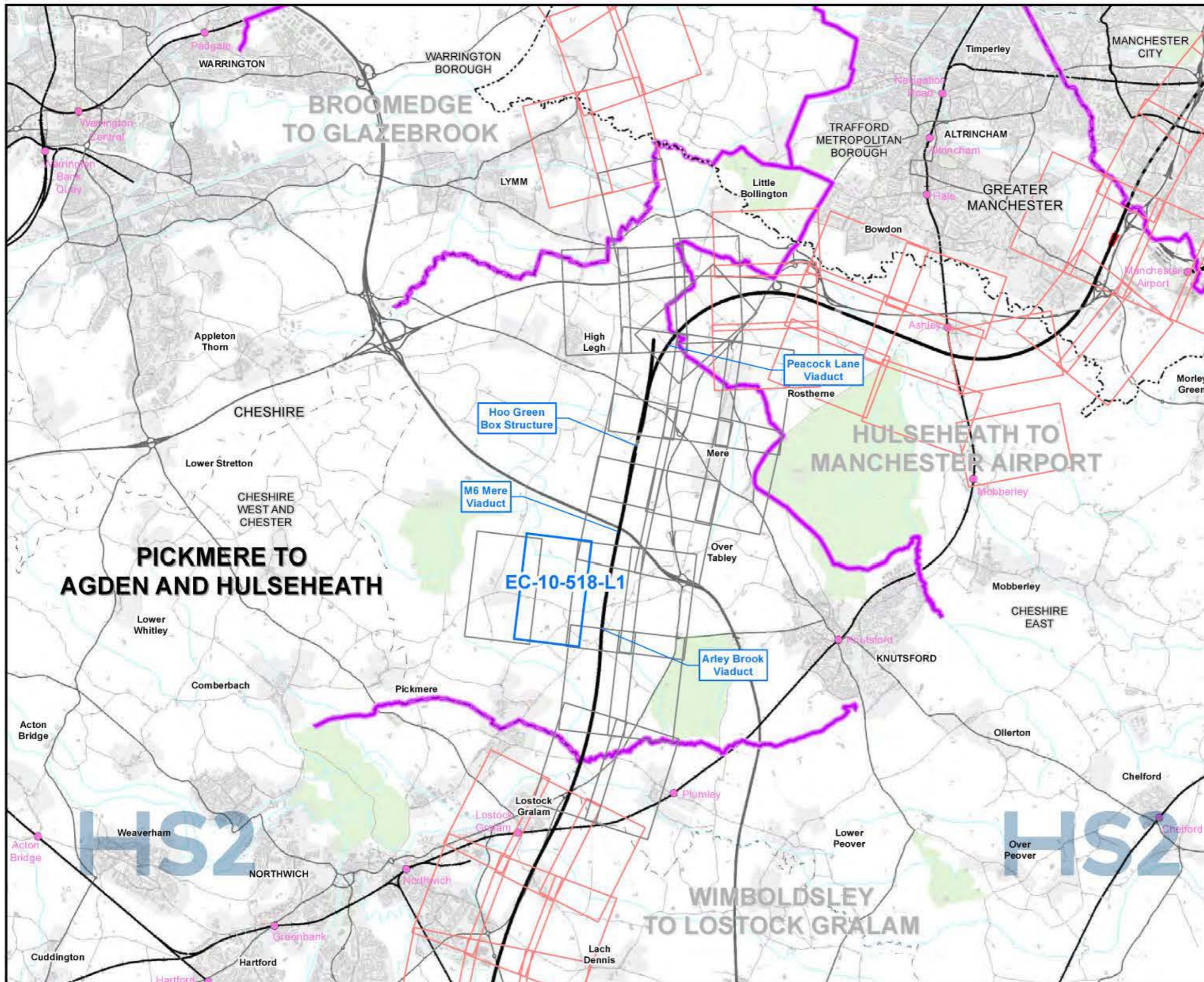
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Date: 21/04/22

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**Map Series Information:**

This map series shows the extent of detailed habitat surveys undertaken to inform the Environmental Statement. The map shows the location of hedgerows that qualify as 'important hedgerows' under the wildlife and landscape criteria of the Hedgerows Regulations (1997).

<p><b>Main Map Legend</b></p> <ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Community area boundary</li> <li> Existing railway station</li> <li> County boundary</li> <li> District/Borough boundary</li> <li> Map sheets included in this community area with ammendment</li> <li> Map sheet included in this community with no ammendment</li> <li> Map sheets not included in this community area</li> </ul>	
<p>Map Number: EC-10-INDEX-MA03</p> <p>Map Name: Index Map of: Phase 2 Habitat Survey SES1 and AP1 ES Community Area MA03: Pickmere to Agden and Hulseheath</p>	<p><b>HS2</b></p> <p>Registered in England. Registration number 06791688 Registered office: Two Snowhill, Snow Hill Queensway Birmingham B4 6GA.</p> <p>© Crown copyright and database rights 2021 OS 100049190</p> <p>Doc Number: 2PT24-MWJ-EV-MAP-M000-001368-P01</p>

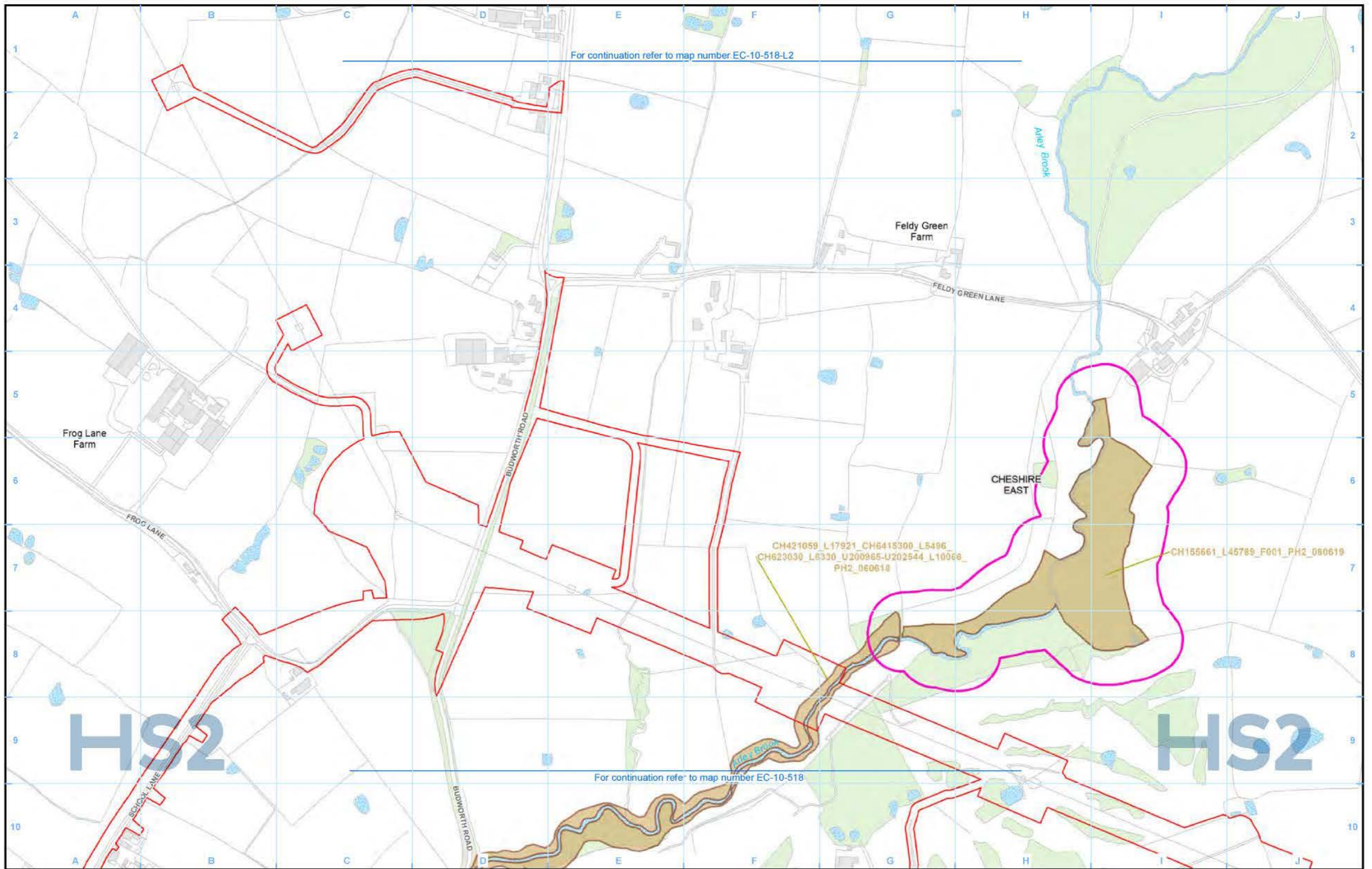
Note: Not all data layers in the legend are represented on every map.

Scale at A3: 1:75,000

0 750 1,500 2,250 3,000  
Metres

Date: 21/04/22





Legend			

Map Number	EC-10-518-L1
Map Name	Phase 2 Habitat Survey SES1 and AP1 ES
	Community Area MA03: Pickmere to Agden and Hulseath

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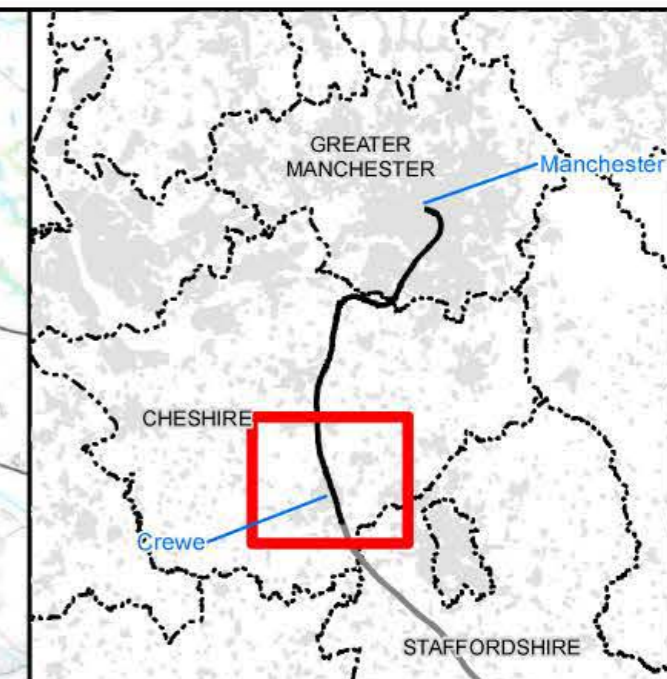
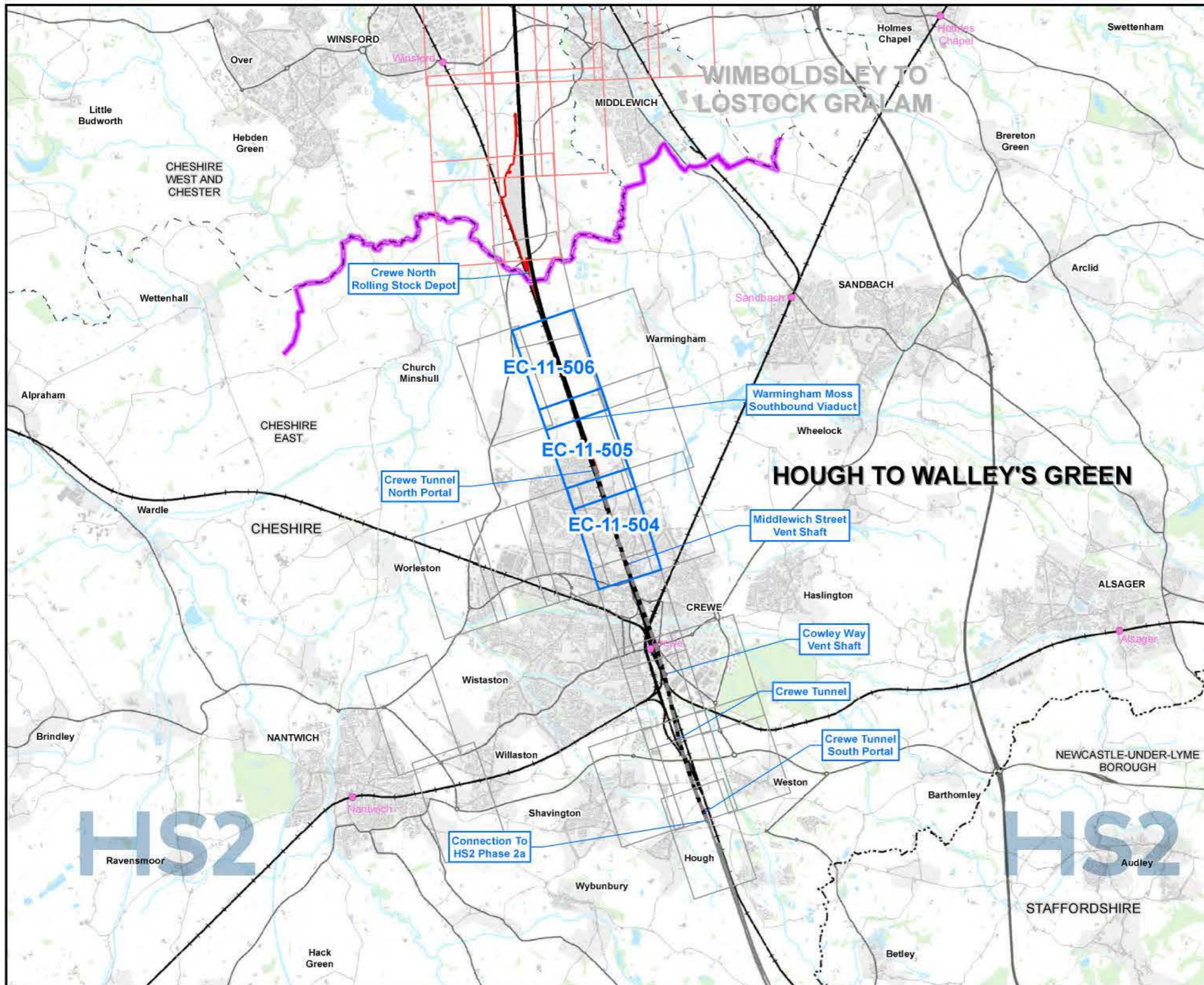


## **High Speed Rail (Crewe – Manchester)**

**Background information and data accompanying  
Supplementary Environmental Statement 1 and  
Additional Provision 1 Environmental Statement**

EC-11 – Other Protected and Notable Species (1)





**Map Series Information:**  
 This map series shows the extent of various protected species surveys conducted to inform the Environmental Statement.

- 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 Area with no amendment
  - Map sheets not included in this community area

Map Number: EC-11-INDEX-MA01  
 Map Name: Index Map of:  
 Other Protected and Notable Species (1) SES1 and AP1 ES  
 Community Area MA01:  
 Hough to Walley's Green

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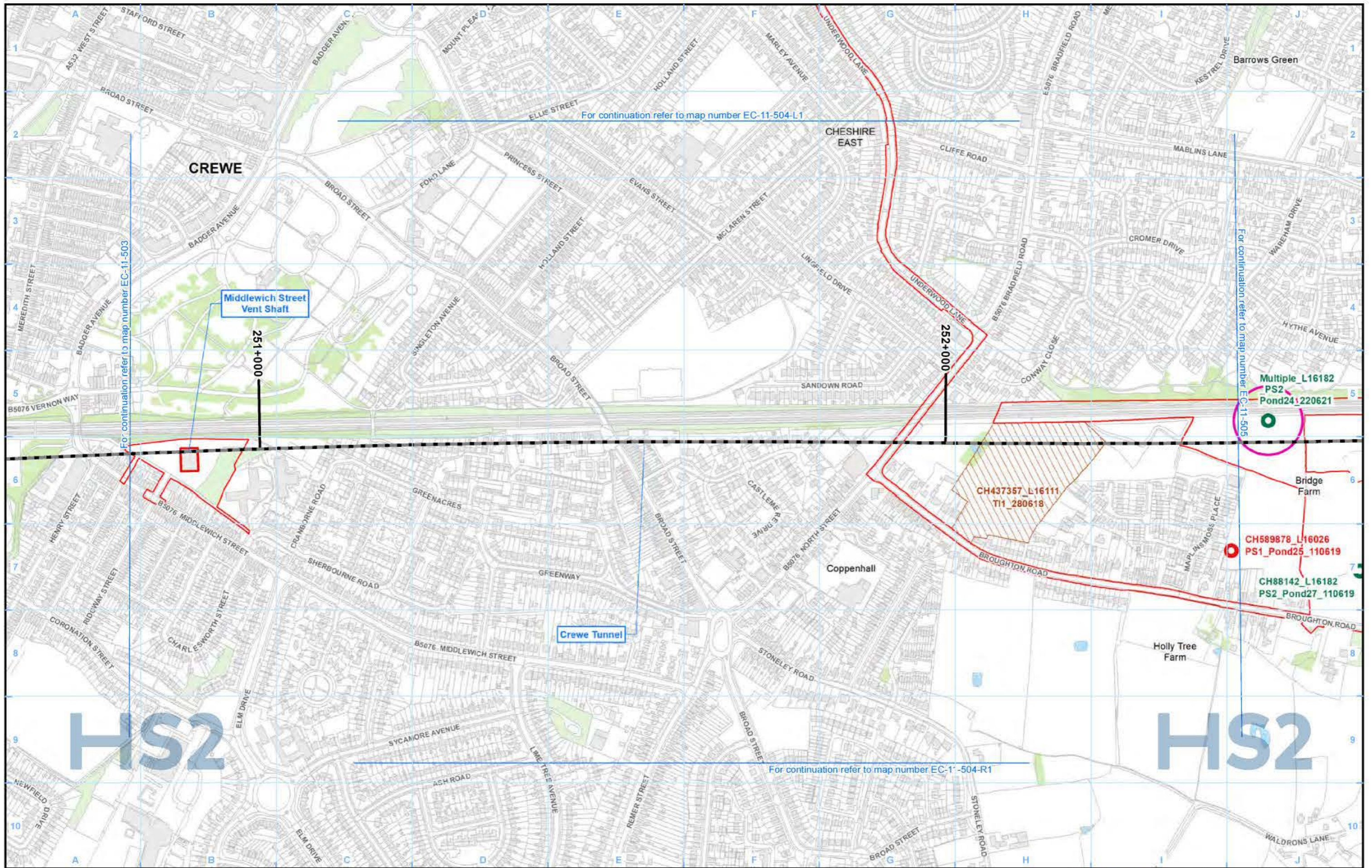
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For continuation refer to map number EC-11-503

For continuation refer to map number EC-11-504-L1

For continuation refer to map number EC-11-505

For continuation refer to map number EC-11-504-R1

- 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
  - Water body
  - Woodland (verified by survey)
  - Area contains new survey data

- Otter:**
- Active otterholt
  - Potential otterholt
  - Suitable habitat for otter

- White clawed crayfish:**
- Manual search and/or trapping conducted and presence confirmed
  - Manual search and/or trapping conducted and assumed absent
  - Site identified as potentially suitable but no access available

- Pond survey:**
- Pond survey - national pond survey
  - Pond survey - PSYM
  - Pond survey - rapid assessment method

- Fish:**
- Fish survey location
  - Terrestrial invertebrate survey extent

- Terrestrial invertebrate:**
- Terrestrial invertebrate survey extent

Map Number: EC-11-504

Map Name: Other Protected and Notable Species (1) SES1 and AP1 ES

Community Area MA01: Hough to Walley's Green

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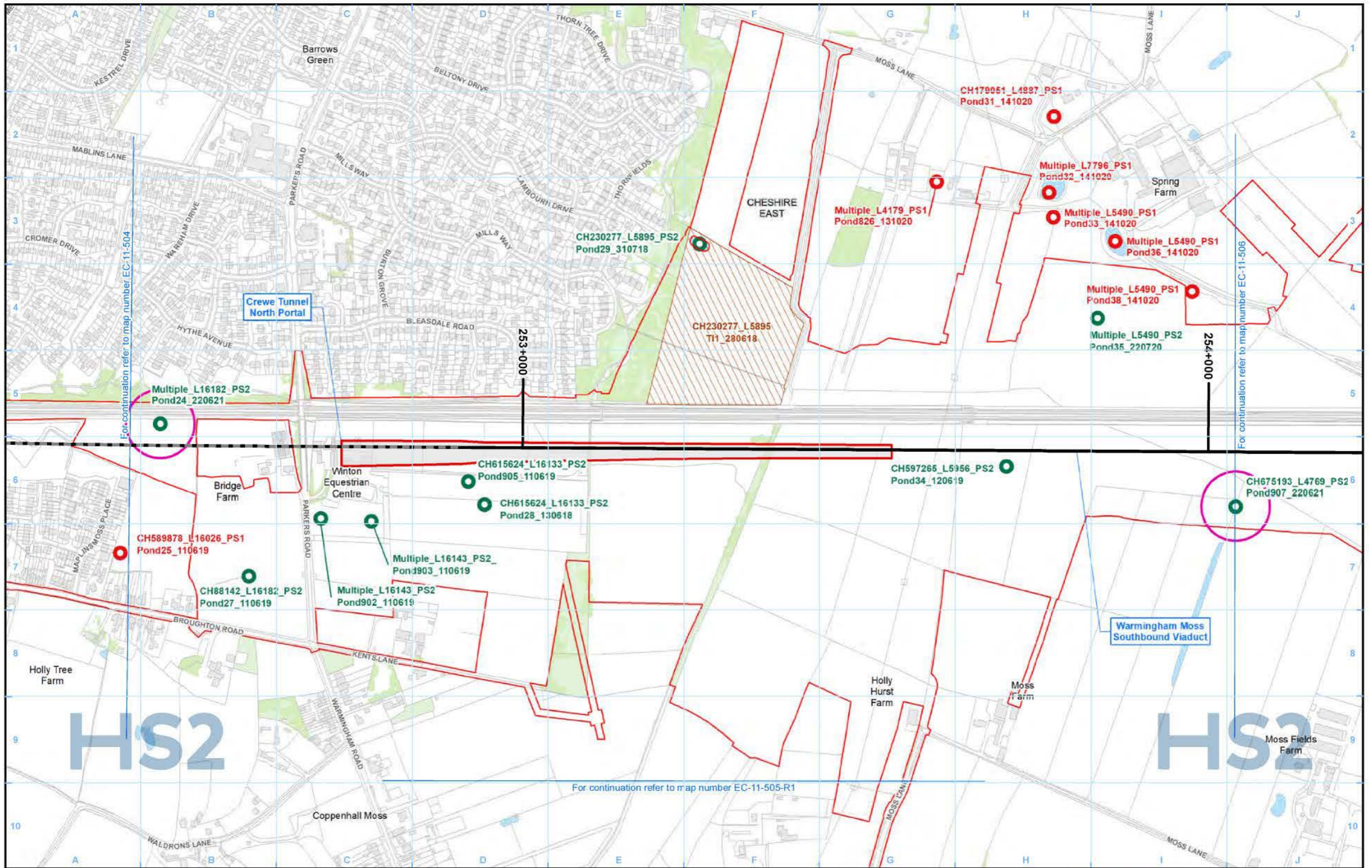
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Date: 21/04/22

Scale at A3: 1:5,000





**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
- Water body
- Woodland (verified by survey)
- Area contains new survey data

**Otter:**

- Active otterholt
- Potential otterholt
- Suitable habitat for otter

**White clawed crayfish:**

- Manual search and/or trapping conducted and presence confirmed
- Manual search and/or trapping conducted and assumed absent
- Site identified as potentially suitable but no access available

**Pond survey:**

- Pond survey - national pond survey
- Pond survey - PSYM
- Pond survey - rapid assessment method

**Fish:**

- Fish survey location
- Terrestrial invertebrate
- Terrestrial invertebrate survey extent

Map Number: EC-11-505

Map Name: Other Protected and Notable Species (1) SES1 and AP1 ES

Community Area MA01: Hough to Walley's Green

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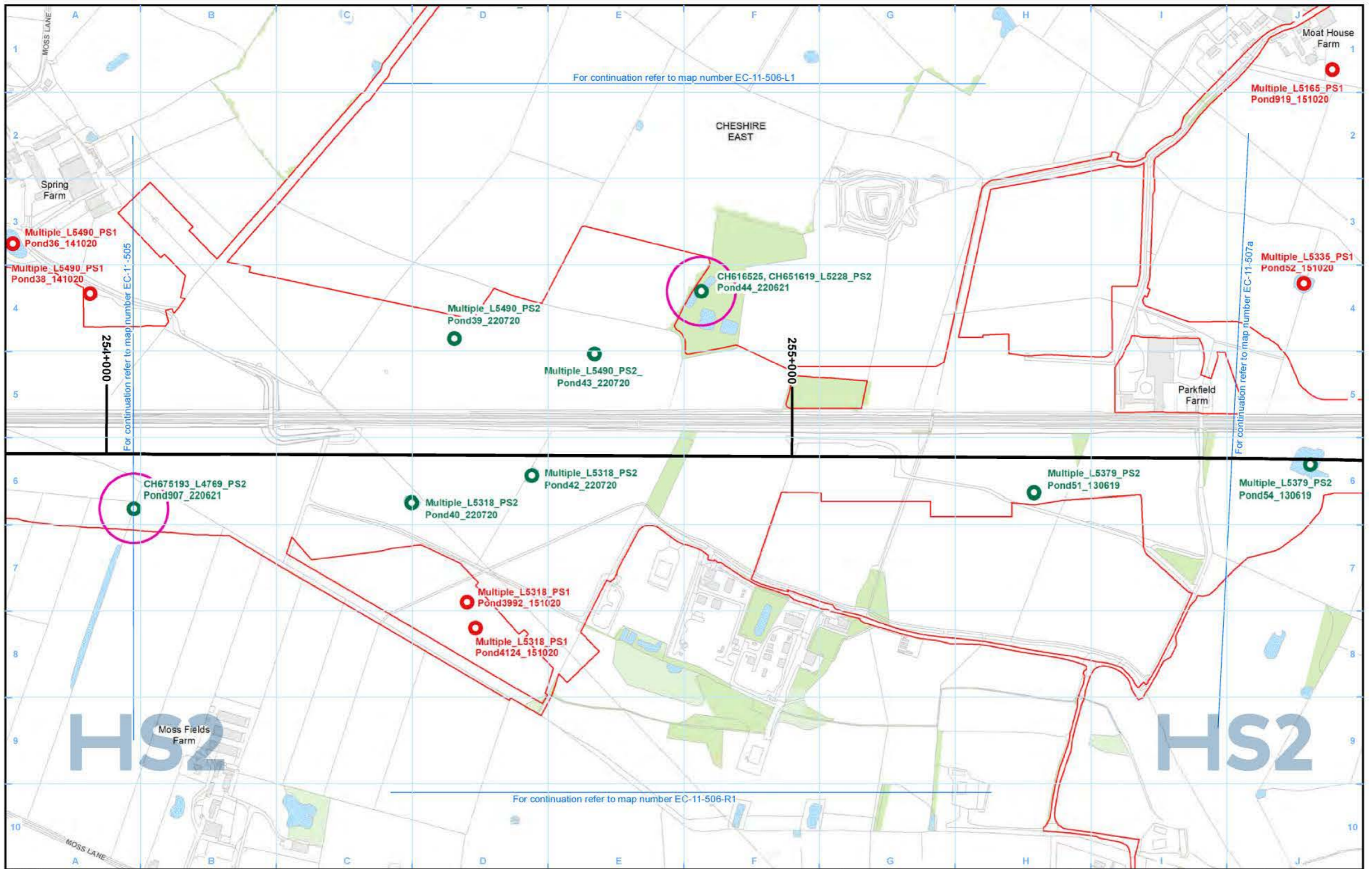
Doc Number: 2PT24-MWJ-EV-MAP-M000-001381-P01

Date: 21/04/22

Scale at A3: 1:5,000

Meters





**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
- Water body
- Woodland (verified by survey)
- Area contains new survey data

**Otter:**

- Active otter holt
- Potential otter holt
- Suitable habitat for otter

**White clawed crayfish:**

- Manual search and/or trapping conducted and presence confirmed
- Manual search and/or trapping conducted and assumed absent
- Site identified as potentially suitable but no access available

**Pond survey:**

- Pond survey - national pond survey
- Pond survey - PSYM
- Pond survey - rapid assessment method

**Fish:**

- Fish survey location
- Terrestrial invertebrate
- Terrestrial invertebrate survey extent

Map Number: EC-11-506

Map Name: Other Protected and Notable Species (1) SES1 and AP1 ES

Community Area MA01: Hough to Walley's Green

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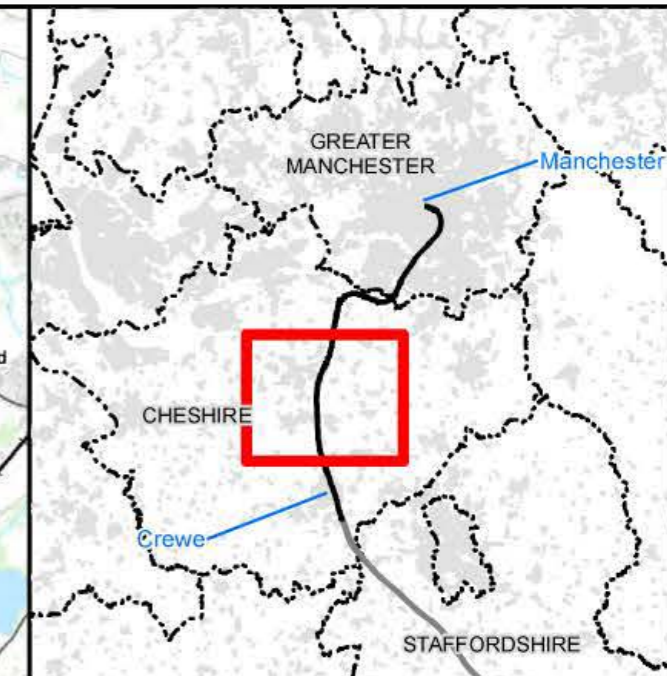
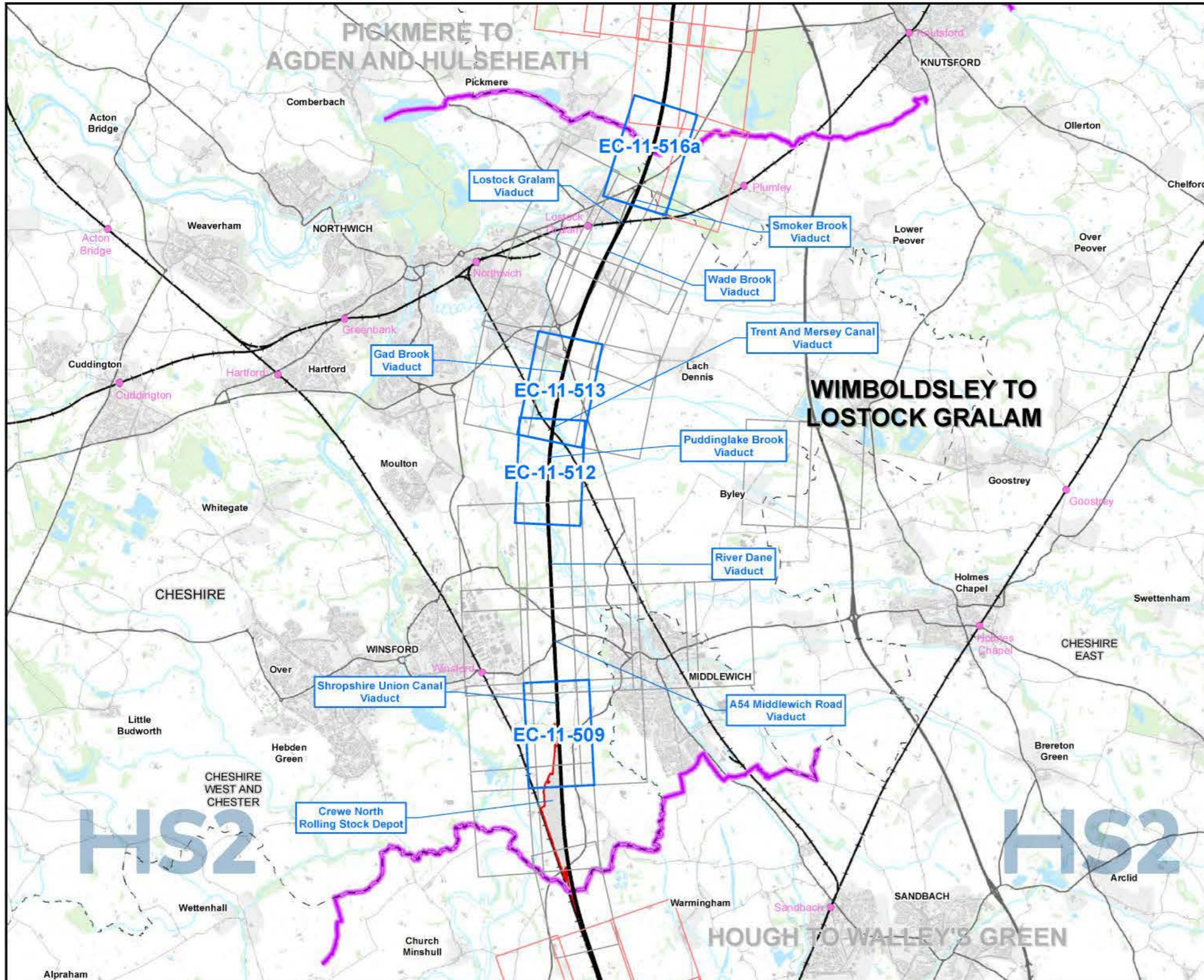
Doc Number: 2PT24-MWJ-EV-MAP-M000-001382-P01

Date: 21/04/22

Scale at A3: 1:5,000

Scale bar: 0, 50, 100, 150, 200 Meters





**Map Series Information:**  
 This map series shows the extent of various protected species surveys conducted to inform the Environmental Statement.

- 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 Area with no amendment
  - Map sheets not included in this community area

Map Number: EC-11-INDEX-MA02  
 Map Name: Index Map of:  
 Other Protected and Notable  
 Species (1) SES1 and AP1 ES  
 Community Area MA02:  
 Wimboldsley to Lostock Gralam

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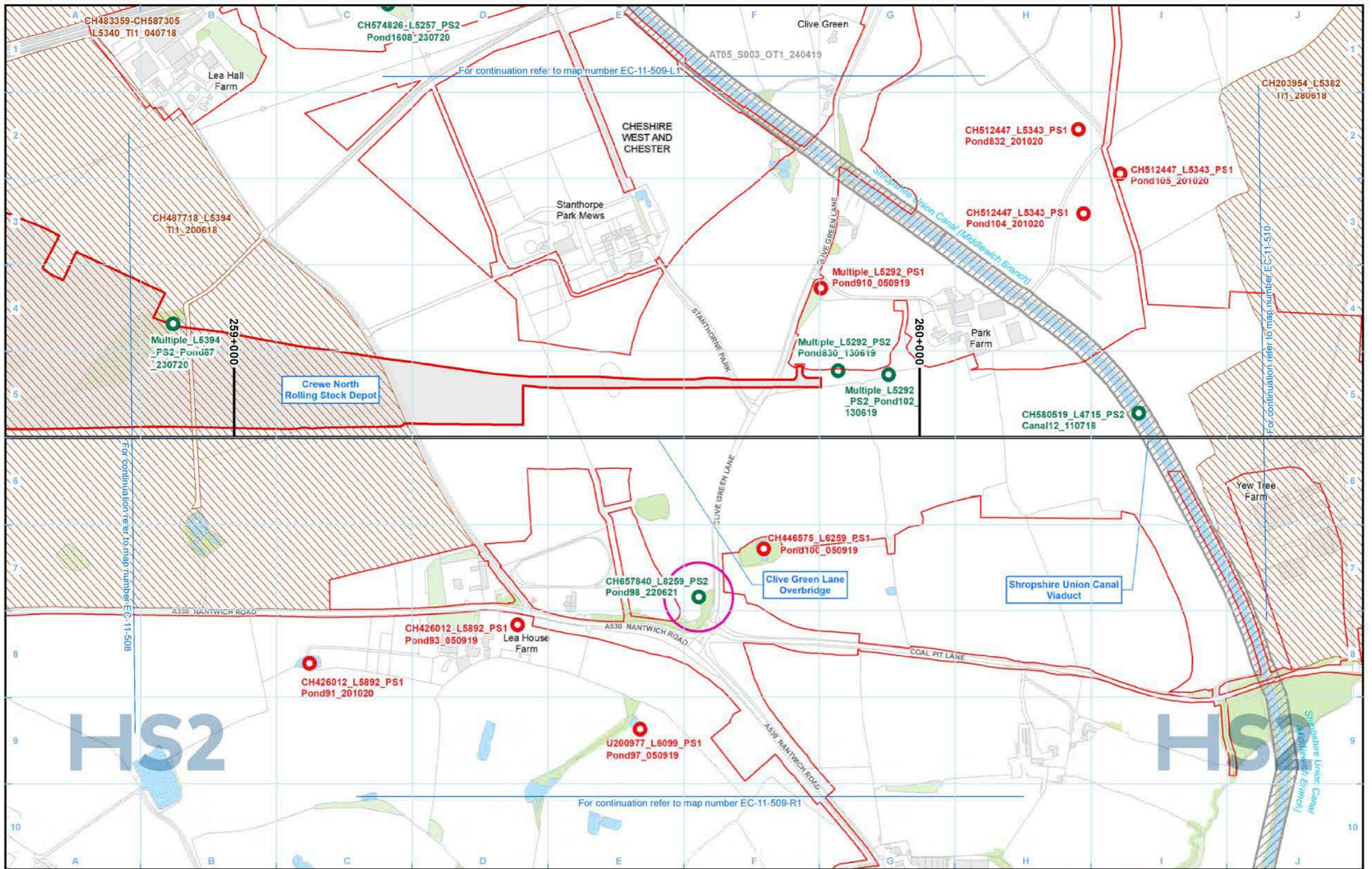
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Doc Number: 2PT24-MWJ-EV-MAP-M000-001440-P01 Date: 21/04/22

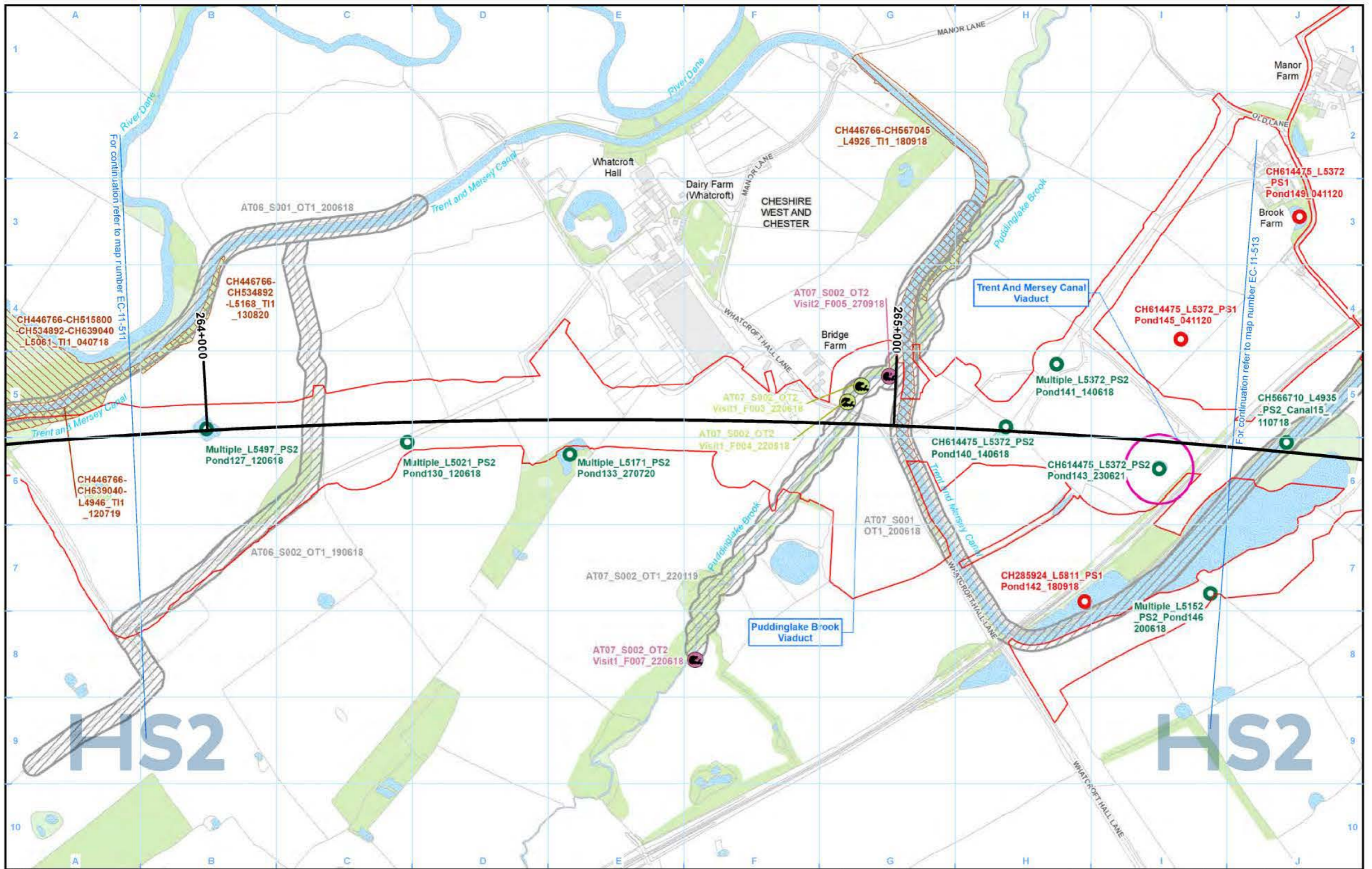
Note: Not all data layers in the legend are represented on every map.





<b>Legend</b> <ul style="list-style-type: none"> <li>Route in tunnel</li> <li>Route on surface</li> <li>Depot, station, headhouse or portal building</li> <li>Land potentially required during construction</li> <li>Community area boundary</li> <li>County boundary</li> <li>District/Borough boundary</li> </ul>		<ul style="list-style-type: none"> <li>Watercourse</li> <li>Water body</li> <li>Woodland (verified by survey)</li> <li>Area contains new survey data</li> </ul>		<b>Otter:</b> <ul style="list-style-type: none"> <li>Active otter holt</li> <li>Potential otter holt</li> <li>Suitable habitat for otter</li> </ul>		<b>White clawed crayfish:</b> <ul style="list-style-type: none"> <li>Manual search and/or trapping conducted and presence confirmed</li> <li>Manual search and/or trapping conducted and assumed absent</li> <li>Site identified as potentially suitable but no access available</li> </ul>		<b>Pond survey:</b> <ul style="list-style-type: none"> <li>Pond survey - national pond survey</li> <li>Pond survey - PSYM</li> <li>Pond survey - rapid assessment method</li> </ul>		<b>Fish:</b> <ul style="list-style-type: none"> <li>Fish survey location</li> <li>Terrestrial invertebrate</li> <li>Terrestrial invertebrate survey extent</li> </ul>	
<b>Map Number</b> EC-11-509		<b>Map Name</b> Other Protected and Notable Species (1) SES1 and AP1 ES				<small>Registered in England. Registration number 00791500. Registered office: Two Snowhill, Snow Hill Queensway, Birmingham B4 6GA.</small> <small>© Crown copyright and database rights 2021 OS 100040150</small>		<b>Scale at A3: 1:5,000</b> 			
<b>Community Area MA02:</b> Wimboldsley to Lostock Gralam		<b>Doc Number:</b> 2PT24-MWJ-EV-MAP-M000-001386-P01		<b>Date:</b> 21/04/22							





**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
- Water body
- Woodland (verified by survey)
- Area contains new survey data

**Otter:**

- Active otterholt
- Potential otterholt
- Suitable habitat for otter

**White clawed crayfish:**

- Manual search and/or trapping conducted and presence confirmed
- Manual search and/or trapping conducted and assumed absent
- Site identified as potentially suitable but no access available

**Pond survey:**

- Pond survey - national pond survey
- Pond survey - PSYM
- Pond survey - rapid assessment method

**Fish:**

- Fish survey location
- Terrestrial invertebrate
- Terrestrial invertebrate survey extent

Map Number: EC-11-512

Map Name: Other Protected and Notable Species (1) SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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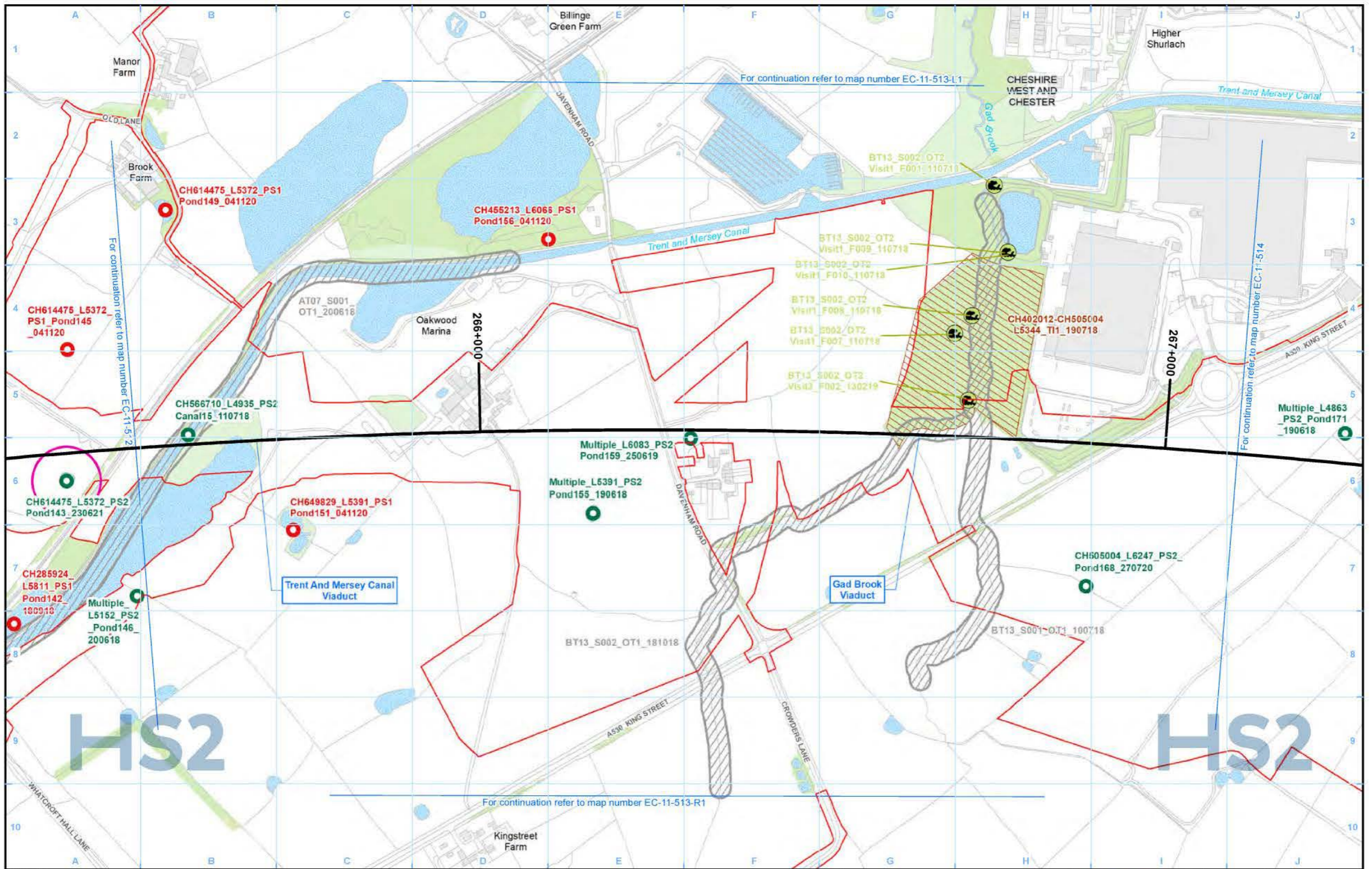
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Doc Number: 2PT24-MWJ-EV-MAP-M000-001389-P01

Date: 21/04/22

Scale at A3: 1:5,000





**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
- Water body
- Woodland (verified by survey)
- Area contains new survey data

**Otter:**

- Active otterholt
- Potential otterholt
- Suitable habitat for otter

**White clawed crayfish:**

- Manual search and/or trapping conducted and presence confirmed
- Manual search and/or trapping conducted and assumed absent
- Site identified as potentially suitable but no access available

**Pond survey:**

- Pond survey - national pond survey
- Pond survey - PSYM
- Pond survey - rapid assessment method

**Fish:**

- Fish survey location
- Terrestrial invertebrate
- Terrestrial invertebrate survey extent

Map Number: EC-11-513

Map Name: Other Protected and Notable Species (1) SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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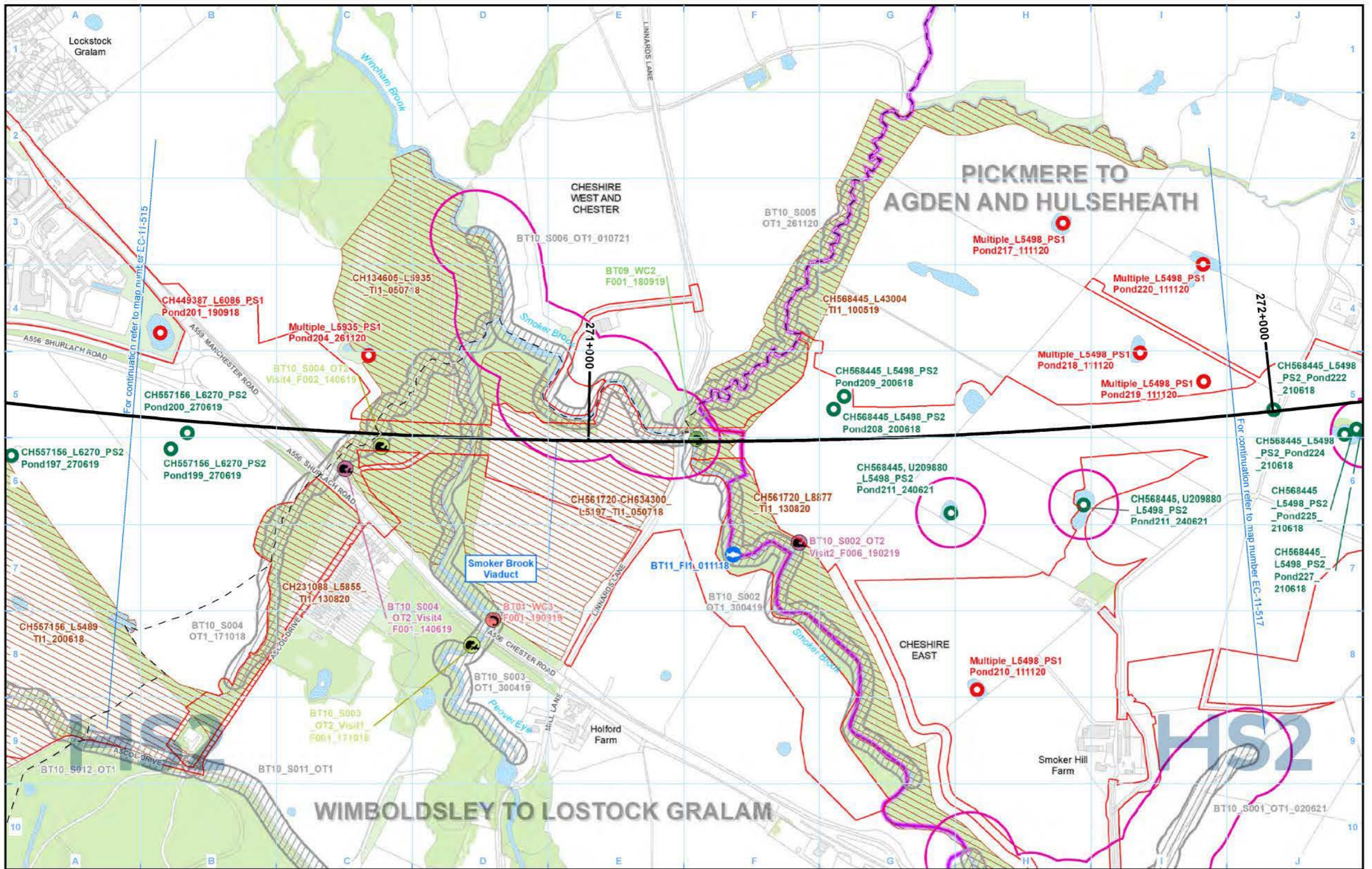
Doc Number: 2PT24-MWJ-EV-MAP-M000-001390-P01

Date: 21/04/22

Scale at A3: 1:5,000

North arrow





**Legend**

	Route in tunnel		Watercourse
	Route on surface		Water body
	Depot, station, headhouse or portal building		Woodland (verified by survey)
	Land potentially required during construction		Area contains new survey data
	Community area boundary		
	County boundary		
	District/Borough boundary		

**Otter:**

	Active otter holt
	Potential otter holt
	Suitable habitat for otter

**White clawed crayfish:**

	Manual search and/or trapping conducted and presence confirmed
	Manual search and/or trapping conducted and assumed absent
	Site identified as potentially suitable but no access available

**Pond survey:**

	Pond survey - national pond survey
	Pond survey - PSYM
	Pond survey - rapid assessment method

**Fish:**

	Fish survey location
	Terrestrial invertebrate
	Terrestrial invertebrate survey extent

Map Number	EC-11-516a
Map Name	Other Protected and Notable Species (1) SES1 and AP1 ES
Community Area MA02: Wimboldsley to Lostock Gralam	

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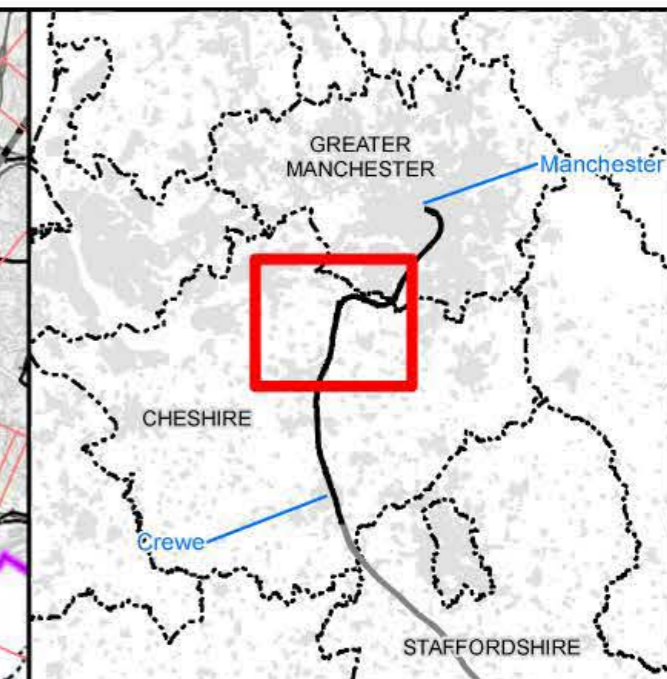
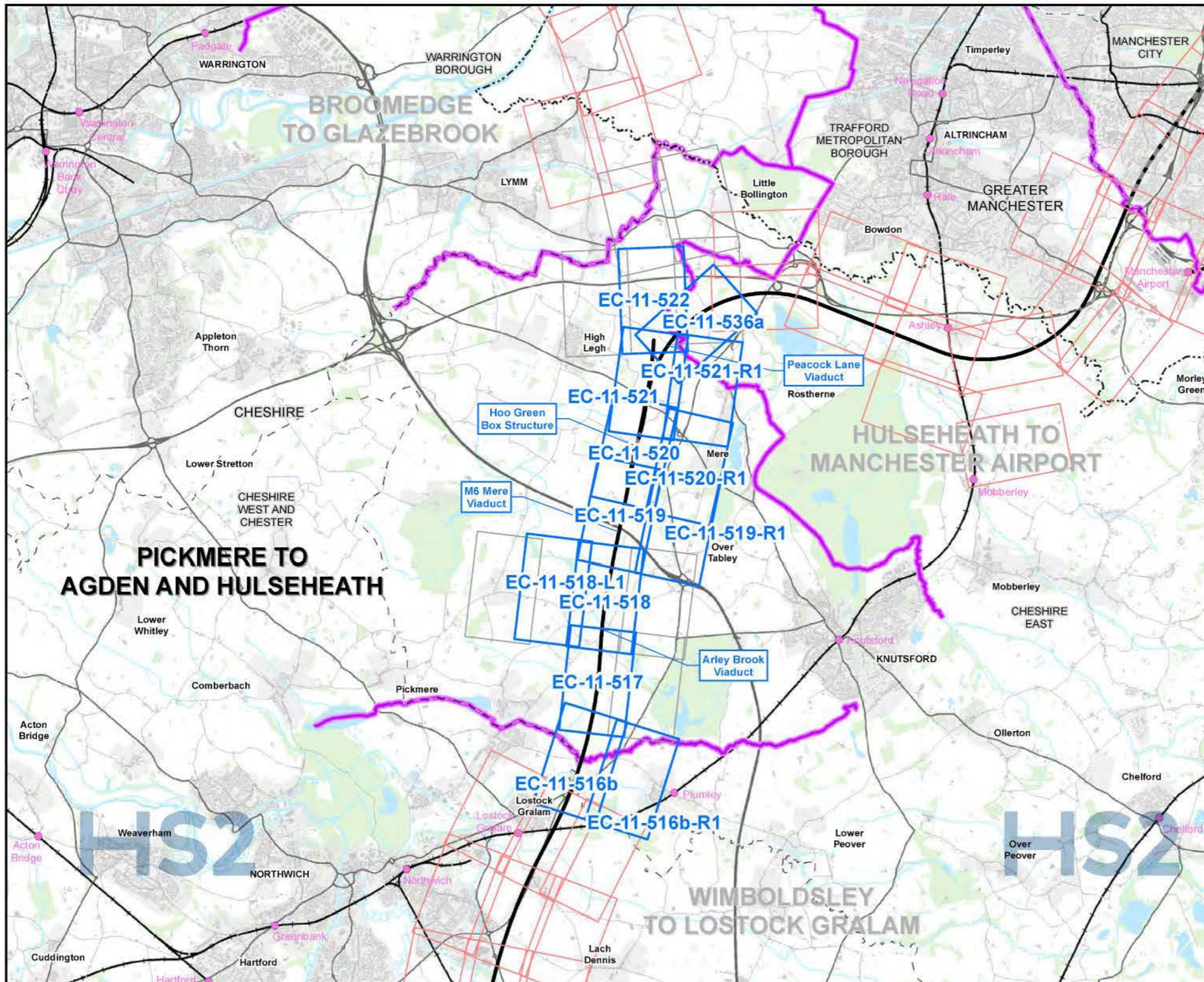
Doc Number: 2PT24-MWJ-EV-MAP-M000-001393-P01

Date: 21/04/22



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**Map Series Information:**  
 This map series shows the extent of various protected species surveys conducted to inform the Environmental Statement.

**Main Map Legend**

Route in tunnel	Map sheets included in this community area
Route on surface	Map sheets included in this Community Area 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: EC-11-INDEX-MA03  
 Map Name: Index Map of:  
 Other Protected and Notable Species (1) SES1 and AP1 ES  
 Community Area MA03:  
 Pickmere to Agden and Hulseheath

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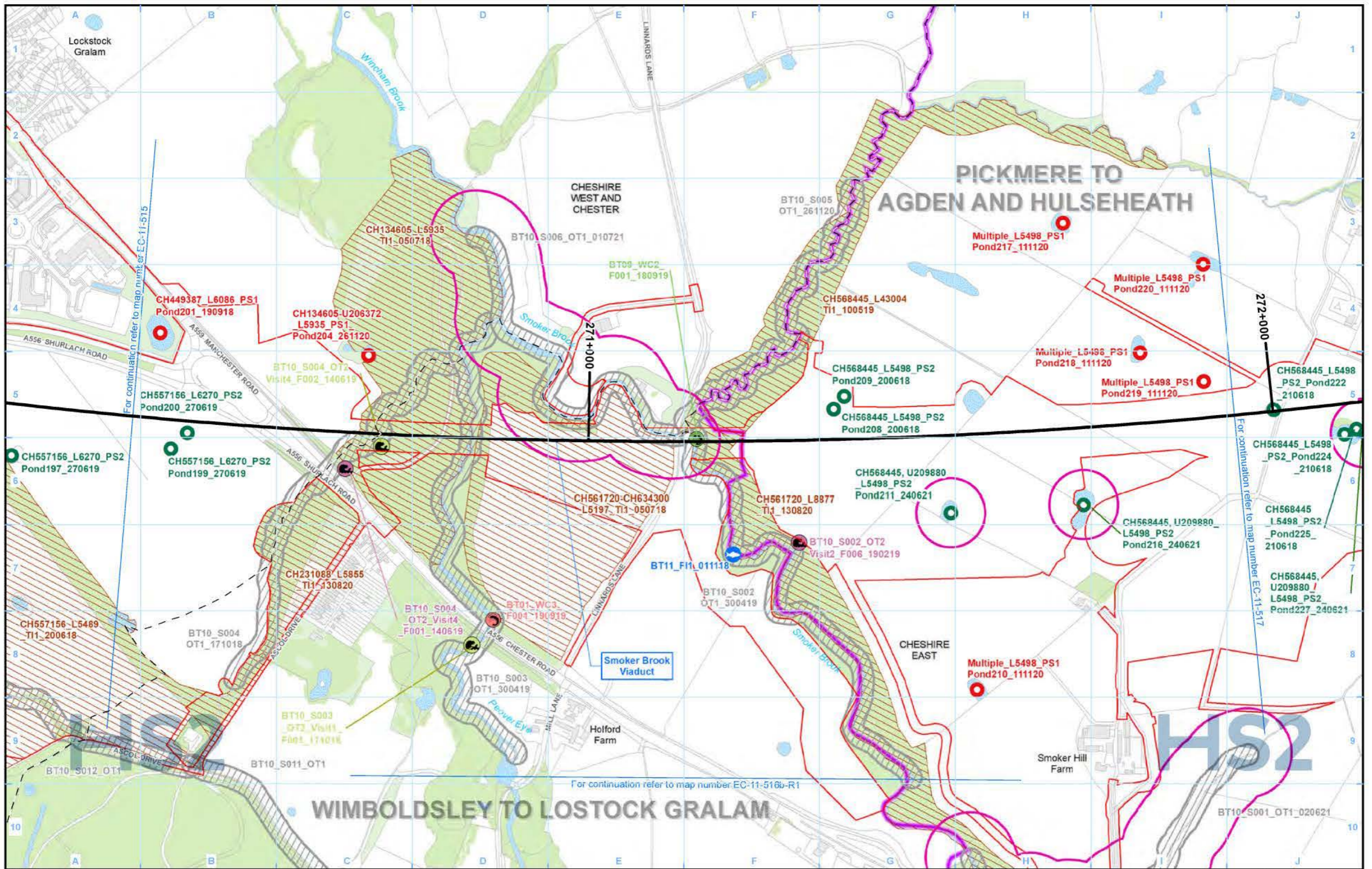
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Doc Number: 2PT24-MWJ-EV-MAP-M000-001441-P01 **Date: 25/05/22**





**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
- Water body
- Woodland (verified by survey)
- Area contains new survey data

**Otter:**

- Active otterholt
- Potential otterholt
- Suitable habitat for otter

**White clawed crayfish:**

- Manual search and/or trapping conducted and presence confirmed
- Manual search and/or trapping conducted and assumed absent
- Site identified as potentially suitable but no access available

**Pond survey:**

- Pond survey - national pond survey
- Pond survey - PSYM
- Pond survey - rapid assessment method

**Fish:**

- Fish survey location
- Terrestrial invertebrate
- Terrestrial invertebrate survey extent

Map Number: EC-11-516b

Map Name: Other Protected and Notable Species (1) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

**HS2**

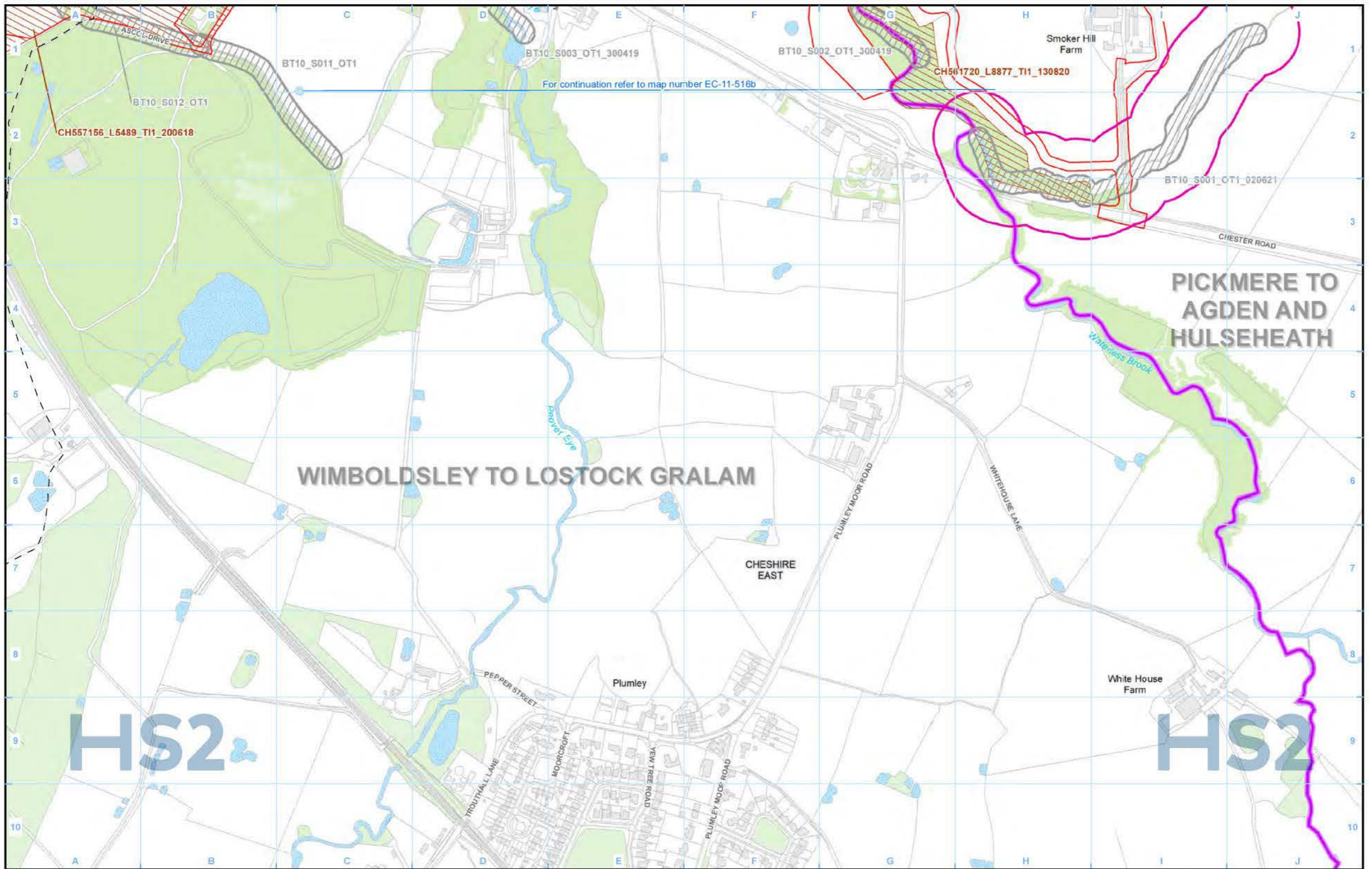
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Scale at A3: 1:5,000

Doc Number: 2PT24-MWJ-EV-MAP-M000-001394-P01

Date: 21/04/22





Legend		Otter:		White clawed crayfish:		Pond survey:		Fish:	
	Route in tunnel		Active otter holt		Manual search and/or trapping conducted and presence confirmed		Pond survey - national pond survey		Fish survey location
	Route on surface		Potential otter holt		Manual search and/or trapping conducted and assumed absent		Pond survey - PSYM		Terrestrial invertebrate
	Depot, station, headhouse or portal building		Suitable habitat for otter		Site identified as potentially suitable but no access available		Pond survey - rapid assessment method		Terrestrial invertebrate survey extent
	Land potentially required during construction								
	Community area boundary								
	County boundary								
	District/Borough boundary								
	Watercourse								
	Water body								
	Woodland (verified by survey)								
	Area contains new survey data								

Map Number: EC-11-516b-R1

Map Name: Other Protected and Notable Species (1) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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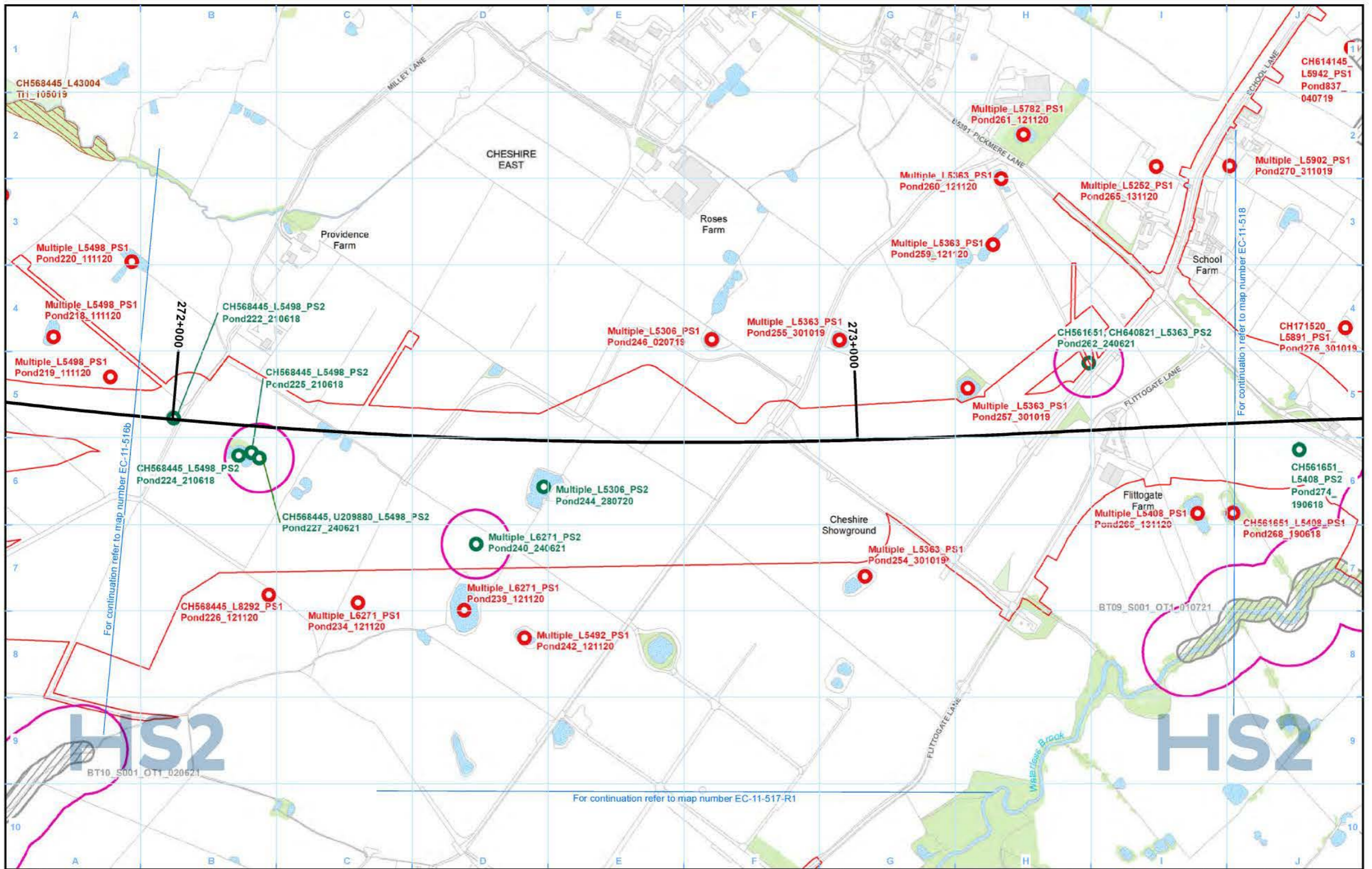
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Doc Number: 2PT24-MWJ-EV-MAP-M000-003416-P01

Date: 21/04/22

Scale at A3: 1:5,000





**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
- Water body
- Woodland (verified by survey)
- Area contains new survey data

**Otter:**

- Active otterholt
- Potential otterholt
- Suitable habitat for otter

**White clawed crayfish:**

- Manual search and/or trapping conducted and presence confirmed
- Manual search and/or trapping conducted and assumed absent
- Site identified as potentially suitable but no access available

**Pond survey:**

- Pond survey - national pond survey
- Pond survey - PSYM
- Pond survey - rapid assessment method

**Fish:**

- Fish survey location
- Terrestrial invertebrate
- Terrestrial invertebrate survey extent

Map Number: EC-11-517

Map Name: Other Protected and Notable Species (1) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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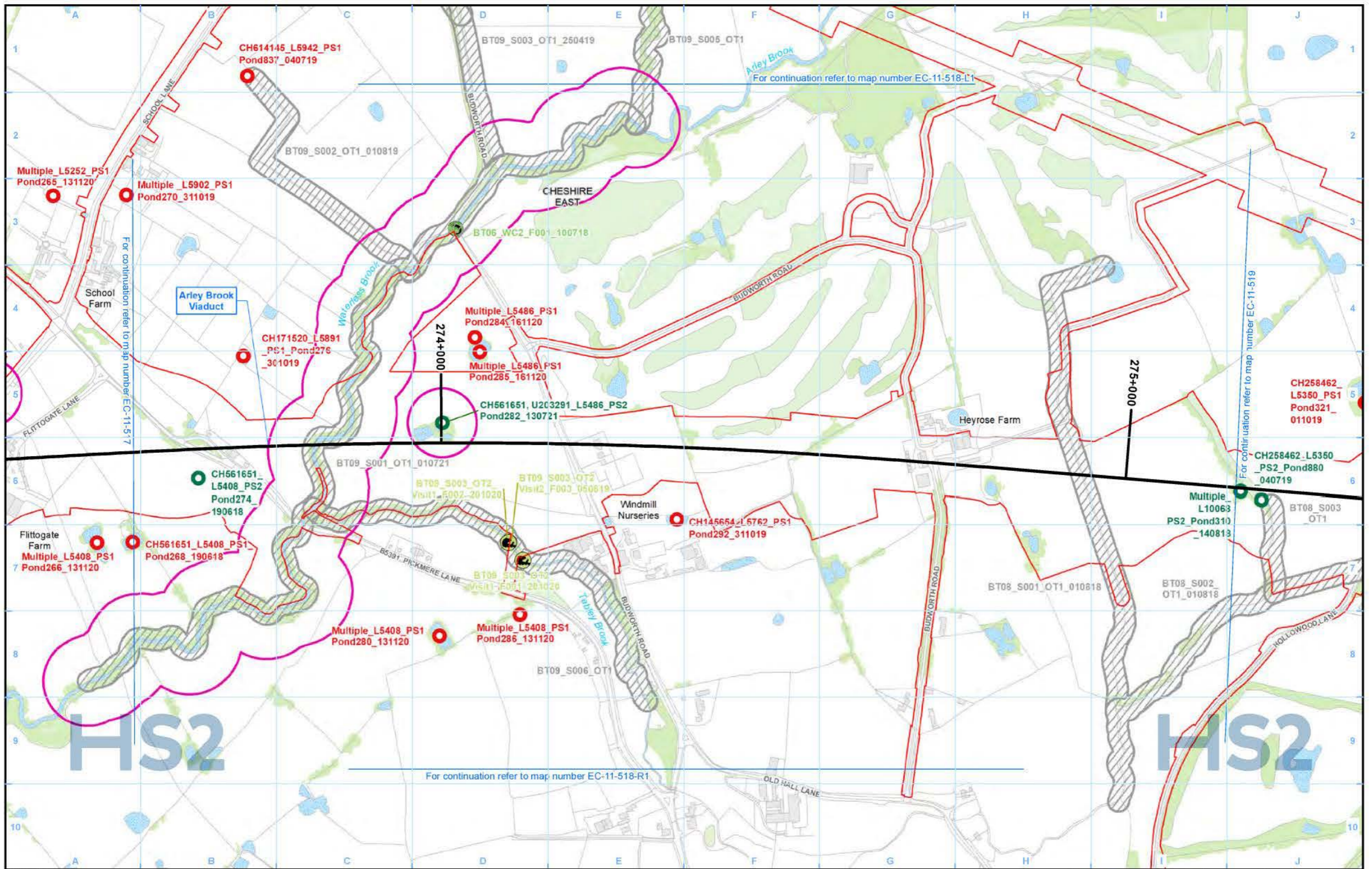
Doc Number: 2PT24-MWJ-EV-MAP-M000-001395-P01

Date: 21/04/22

Scale at A3: 1:5,000

For continuation refer to map number EC-11-518





**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
- Water body
- Woodland (verified by survey)
- Area contains new survey data

**Otter:**

- Active otterholt
- Potential otterholt
- Suitable habitat for otter

**White clawed crayfish:**

- Manual search and/or trapping conducted and presence confirmed
- Manual search and/or trapping conducted and assumed absent
- Site identified as potentially suitable but no access available

**Pond survey:**

- Pond survey - national pond survey
- Pond survey - PSYM
- Pond survey - rapid assessment method

**Fish:**

- Fish survey location
- Terrestrial invertebrate
- Terrestrial invertebrate survey extent

Map Number: EC-11-518

Map Name: Other Protected and Notable Species (1) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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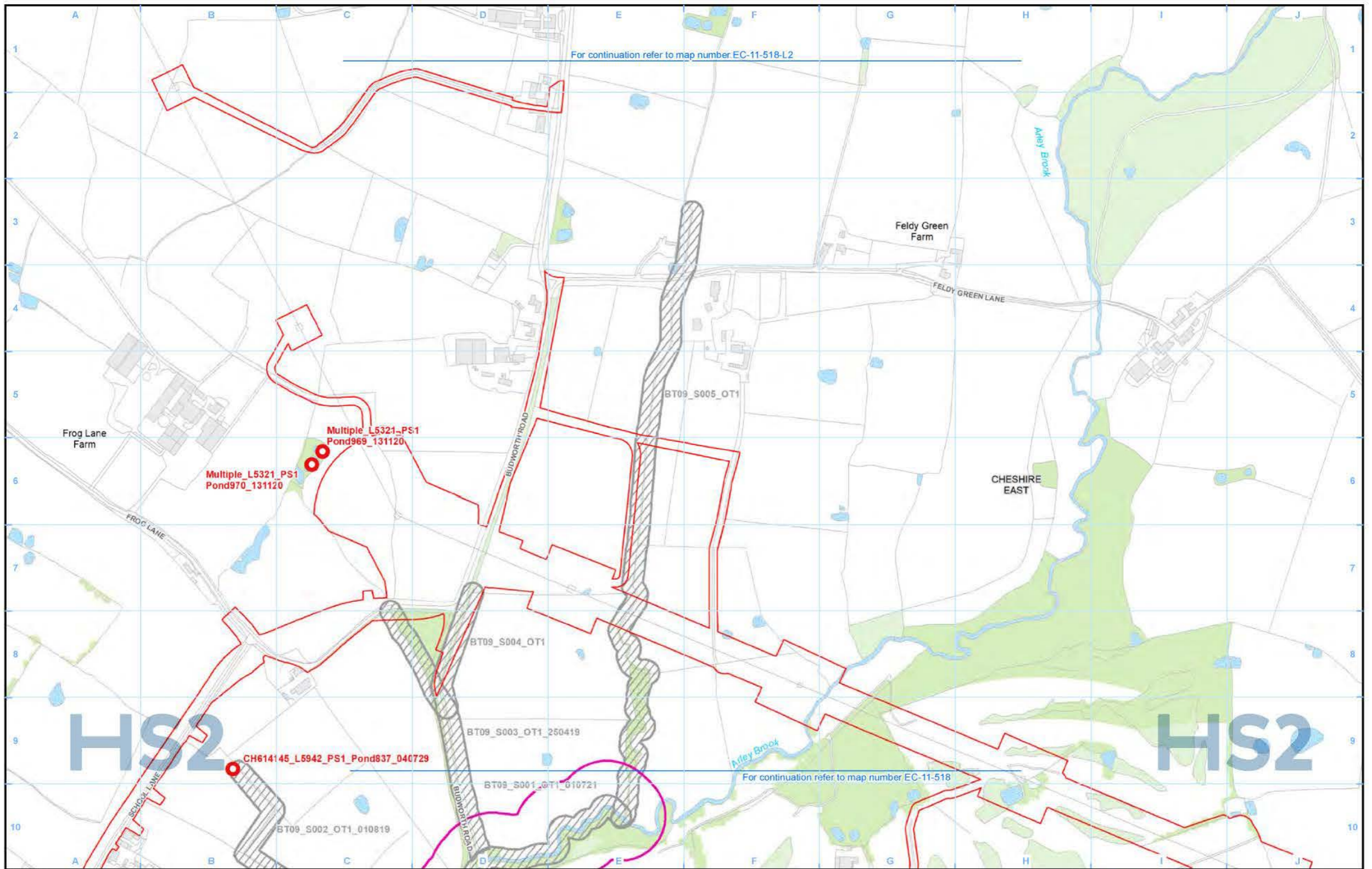
Doc Number: 2PT24-MWJ-EV-MAP-M000-001396-P01

Date: 21/04/22

Scale at A3: 1:5,000

Meters





For continuation refer to map number EC-11-518-L2

For continuation refer to map number EC-11-518

**Legend**

<ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> <li> District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li> Watercourse</li> <li> Water body</li> <li> Woodland (verified by survey)</li> <li> Area contains new survey data</li> </ul>	<p><b>Otter:</b></p> <ul style="list-style-type: none"> <li> Active otter holt</li> <li> Potential otter holt</li> <li> Suitable habitat for otter</li> </ul>	<p><b>White clawed crayfish:</b></p> <ul style="list-style-type: none"> <li> Manual search and/or trapping conducted and presence confirmed</li> <li> Manual search and/or trapping conducted and assumed absent</li> <li> Site identified as potentially suitable but no access available</li> </ul>	<p><b>Pond survey:</b></p> <ul style="list-style-type: none"> <li> Pond survey - national pond survey</li> <li> Pond survey - PSYM</li> <li> Pond survey - rapid assessment method</li> </ul>	<p><b>Fish:</b></p> <ul style="list-style-type: none"> <li> Fish survey location</li> <li> Terrestrial invertebrate survey extent</li> </ul>
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Map Number: EC-11-518-L1

Map Name: Other Protected and Notable Species (1) SES1 and AP1 ES

Community Area MA03:  
Pickmere to Agden and Hulseath

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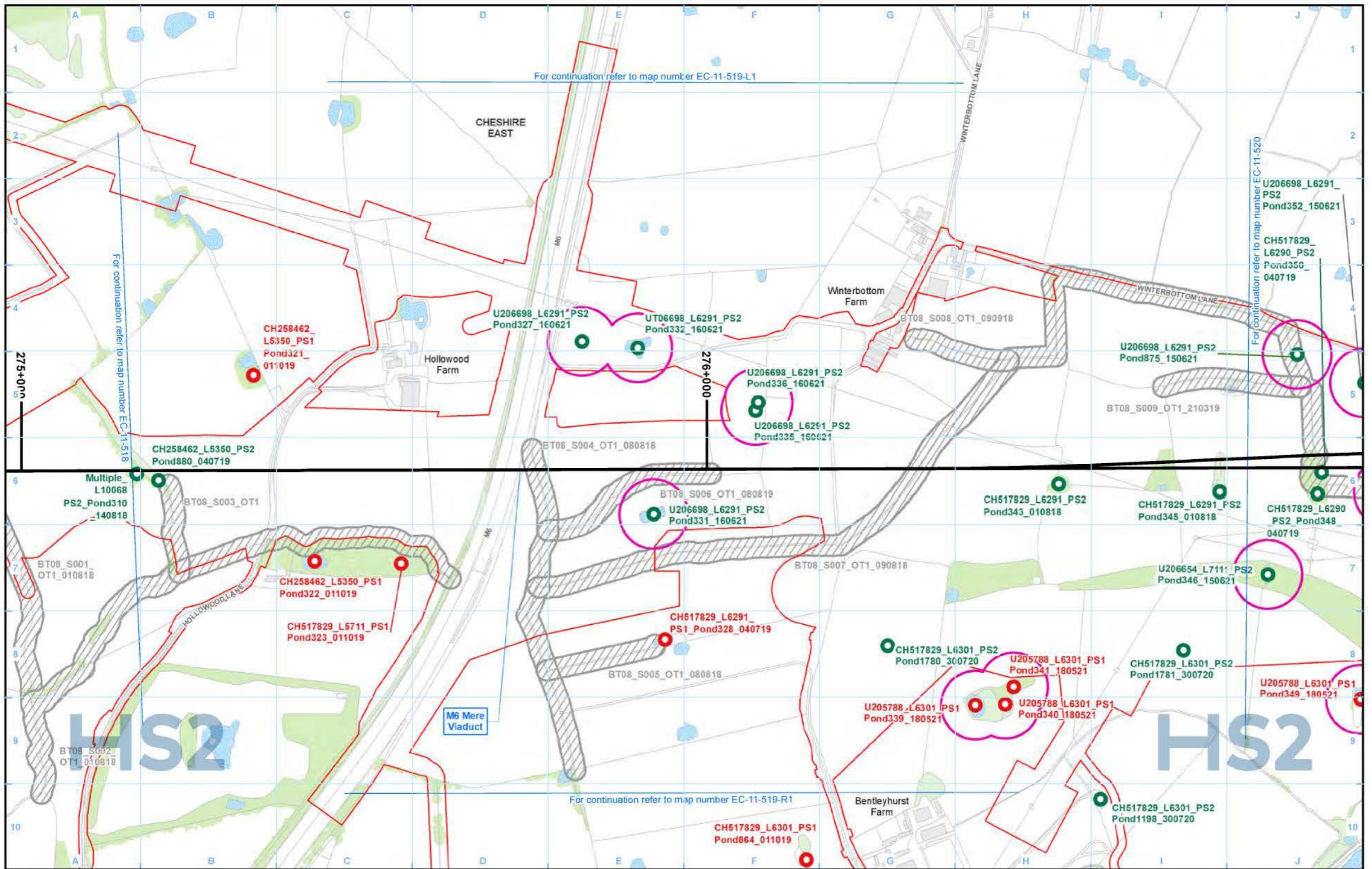
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Date: 21/04/22

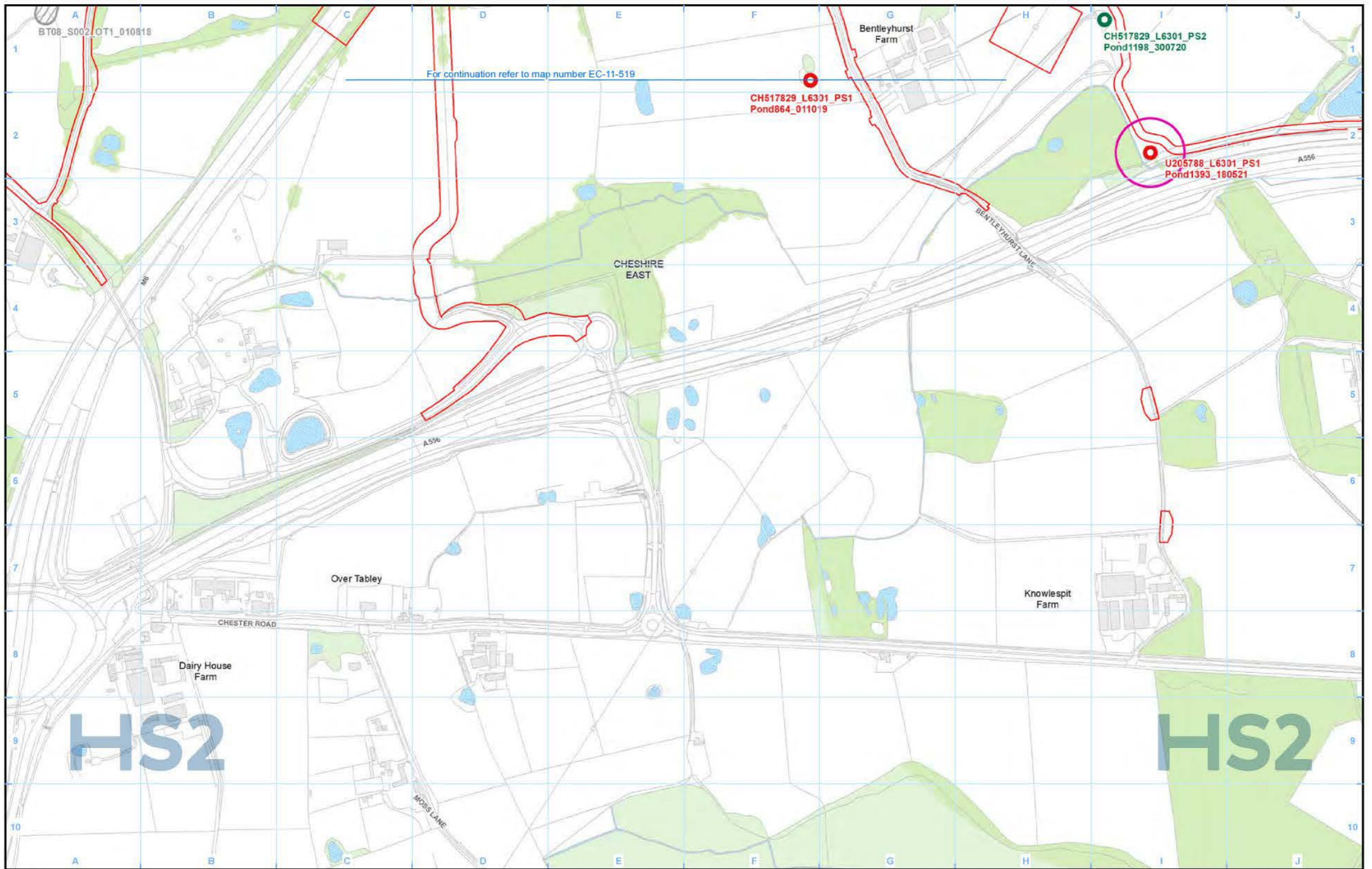
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<b>Legend</b> <ul style="list-style-type: none"> <li>Route in tunnel</li> <li>Route on surface</li> <li>Depot, station, headhouse or portal building</li> <li>Land potentially required during construction</li> <li>Community area boundary</li> <li>County boundary</li> <li>District/Borough boundary</li> </ul>		<ul style="list-style-type: none"> <li>Watercourse</li> <li>Water body</li> <li>Woodland (verified by survey)</li> <li>Area contains new survey data</li> </ul>		<b>Otter:</b> <ul style="list-style-type: none"> <li>Active otterholt</li> <li>Potential otterholt</li> <li>Suitable habitat for otter</li> </ul>		<b>White clawed crayfish:</b> <ul style="list-style-type: none"> <li>Manual search and/or trapping conducted and presence confirmed</li> <li>Manual search and/or trapping conducted and assumed absent</li> <li>Site identified as potentially suitable but no access available</li> </ul>		<b>Pond survey:</b> <ul style="list-style-type: none"> <li>Pond survey - national pond survey</li> <li>Pond survey - PSYM</li> <li>Pond survey - rapid assessment method</li> </ul>		<b>Fish:</b> <ul style="list-style-type: none"> <li>Fish survey location</li> <li>Terrestrial invertebrate</li> <li>Terrestrial invertebrate survey extent</li> </ul>	
<b>Map Number</b> EC-11-519		<b>Map Name</b> Other Protected and Notable Species (1) SES1 and AP1 ES				<small>Registered in England. Registration number 00791500. Registered office: Two Snowhill, Snow Hill Queensway, Birmingham B4 6GA.</small>		<small>© Crown copyright and database rights 2021 OS 100040150</small>		<b>Scale at A3: 1:5,000</b> 	
<b>Community Area MA03:</b> Pickmere to Agden and Hulseheath		<b>Doc Number:</b> 2PT24-MWJ-EV-MAP-M000-001397-P01		<b>Date:</b> 21/04/22							

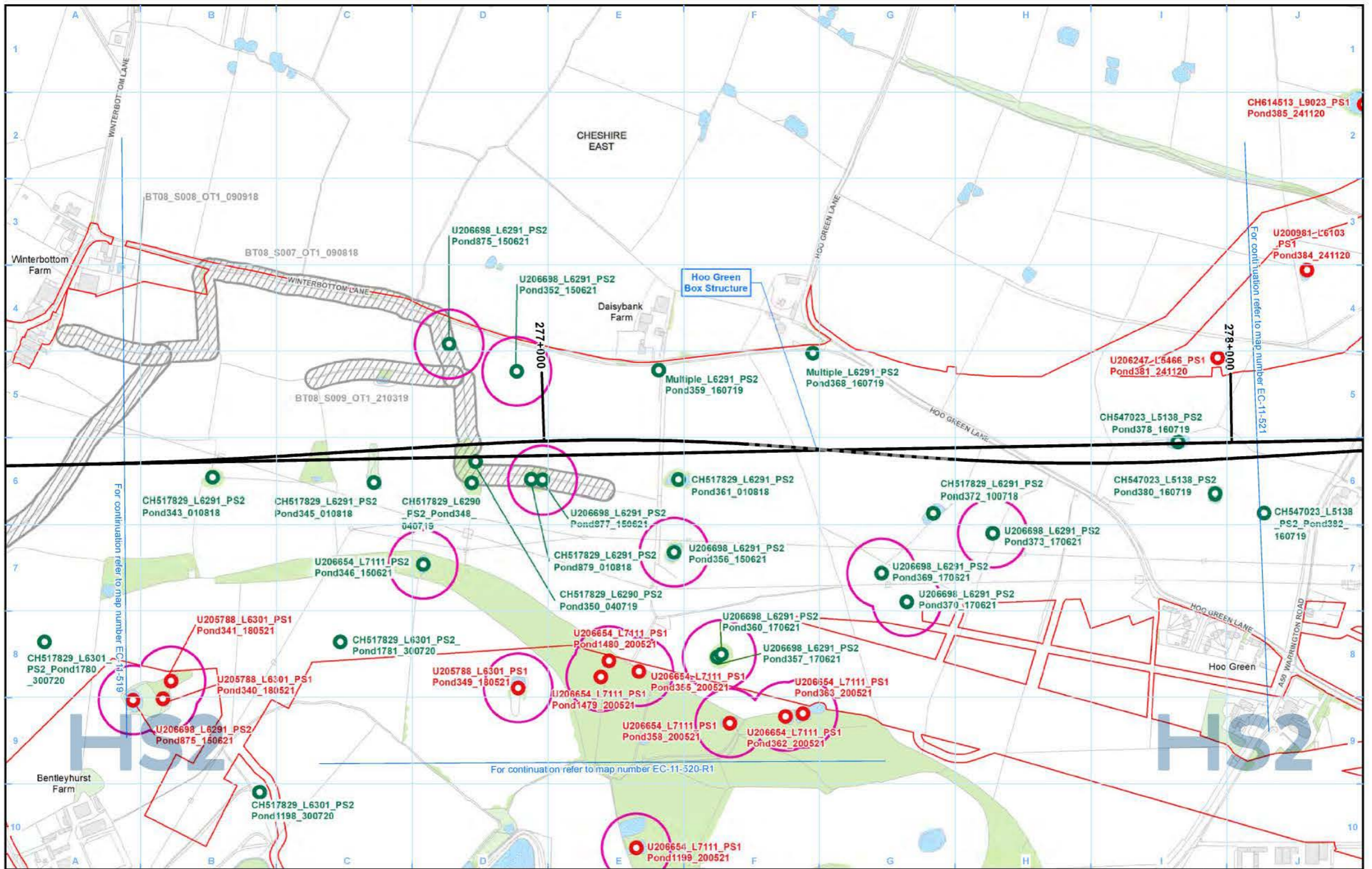




For continuation refer to map number EC-11-519

<b>Legend</b> <ul style="list-style-type: none"> <li>Route in tunnel</li> <li>Route on surface</li> <li>Depot, station, headhouse or portal building</li> <li>Land potentially required during construction</li> <li>Community area boundary</li> <li>County boundary</li> <li>District/Borough boundary</li> </ul>		<ul style="list-style-type: none"> <li>Watercourse</li> <li>Water body</li> <li>Woodland (verified by survey)</li> <li>Area contains new survey data</li> </ul>		<b>Otter:</b> <ul style="list-style-type: none"> <li>Active otter holt</li> <li>Potential otter holt</li> <li>Suitable habitat for otter</li> </ul>		<b>White clawed crayfish:</b> <ul style="list-style-type: none"> <li>Manual search and/or trapping conducted and presence confirmed</li> <li>Manual search and/or trapping conducted and assumed absent</li> <li>Site identified as potentially suitable but no access available</li> </ul>		<b>Pond survey:</b> <ul style="list-style-type: none"> <li>Pond survey - national pond survey</li> <li>Pond survey - PSYM</li> <li>Pond survey - rapid assessment method</li> </ul>		<b>Fish:</b> <ul style="list-style-type: none"> <li>Fish survey location</li> <li>Terrestrial invertebrate</li> <li>Terrestrial invertebrate survey extent</li> </ul>	
<b>Map Number</b> EC-11-519-R1		<b>Map Name</b> Other Protected and Notable Species (1) SES1 and AP1 ES		<b>Scale at A3:</b> 1:5,000				<b>HS2</b> <small>Registered in England. Registration number 06791506.            Registered office: Two Snowhill, Snow Hill Queensway, Birmingham B4 6GA.</small>		<small>© Crown copyright and database rights 2021            OS 100040150</small>	
<b>Community Area MA03:</b> Pickmere to Agden and Hulseath		<b>Doc Number:</b> 2PT24-MWJ-EV-MAP-M000-003421-P01		<b>Date:</b> 21/04/22		<small>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.</small>					





**Legend**

<ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> <li> District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li> Watercourse</li> <li> Water body</li> <li> Woodland (verified by survey)</li> <li> Area contains new survey data</li> </ul>	<p><b>Otter:</b></p> <ul style="list-style-type: none"> <li> Active otterholt</li> <li> Potential otterholt</li> <li> Suitable habitat for otter</li> </ul>	<p><b>White clawed crayfish:</b></p> <ul style="list-style-type: none"> <li> Manual search and/or trapping conducted and presence confirmed</li> <li> Manual search and/or trapping conducted and assumed absent</li> <li> Site identified as potentially suitable but no access available</li> </ul>	<p><b>Pond survey:</b></p> <ul style="list-style-type: none"> <li> Pond survey - national pond survey</li> <li> Pond survey - PSYM</li> <li> Pond survey - rapid assessment method</li> </ul>	<p><b>Fish:</b></p> <ul style="list-style-type: none"> <li> Fish survey location</li> <li> Terrestrial invertebrate</li> <li> Terrestrial invertebrate survey extent</li> </ul>
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Map Number: EC-11-520

Map Name: Other Protected and Notable Species (1) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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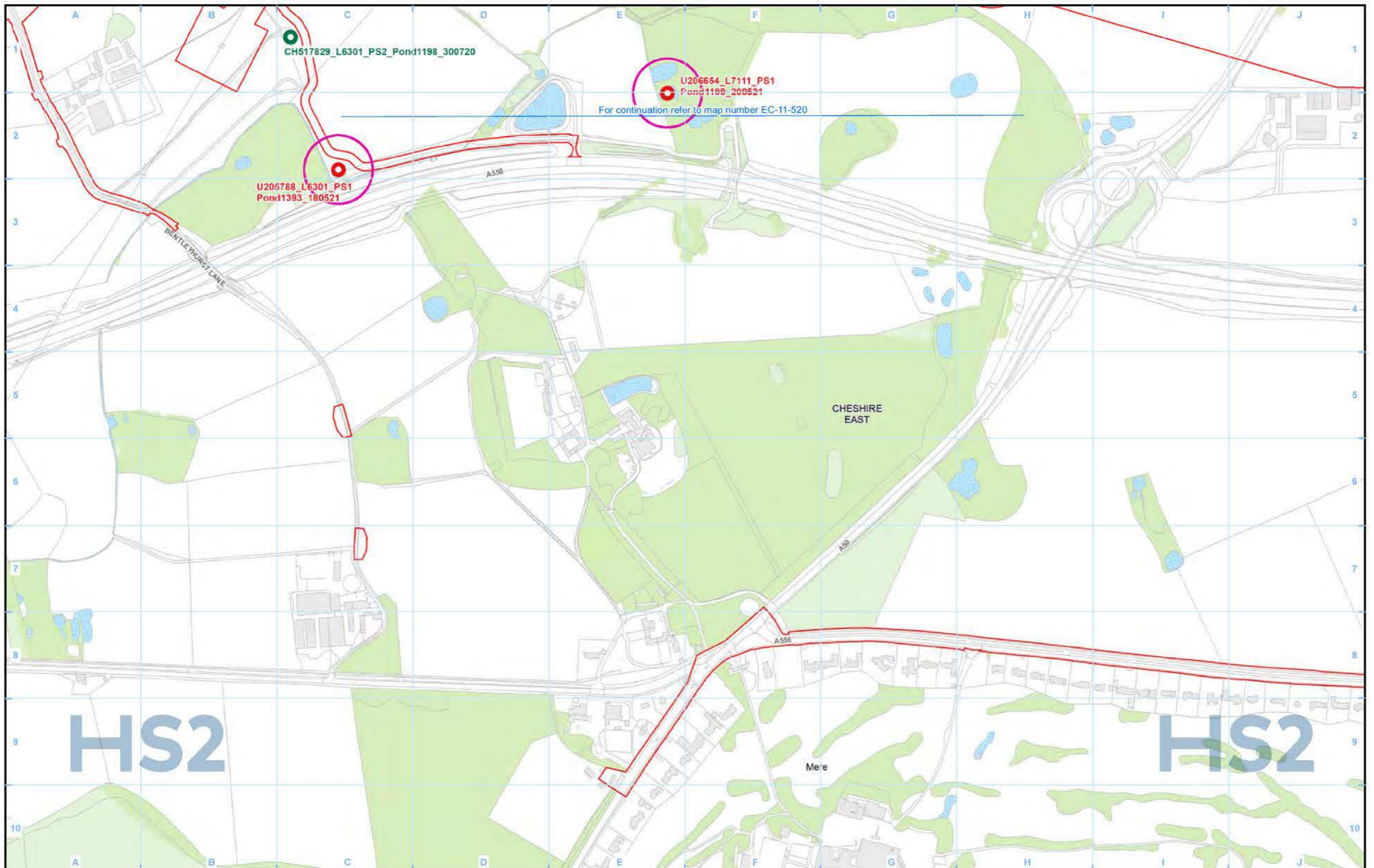
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Scale at A3: 1:5,000

For continuation refer to map number EC-11-521

For continuation refer to map number EC-11-520-R1

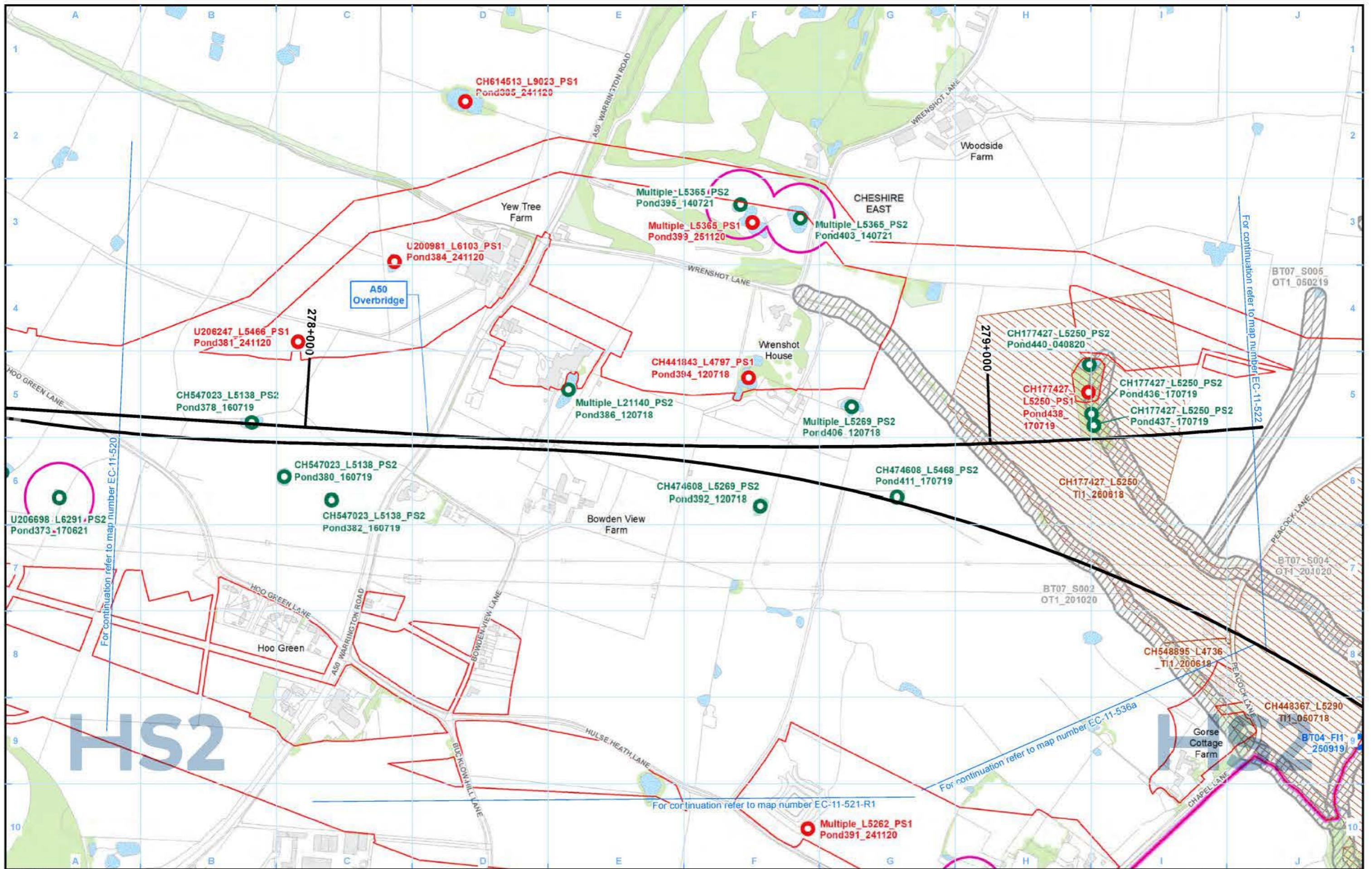




For continuation refer to map number EC-11-520

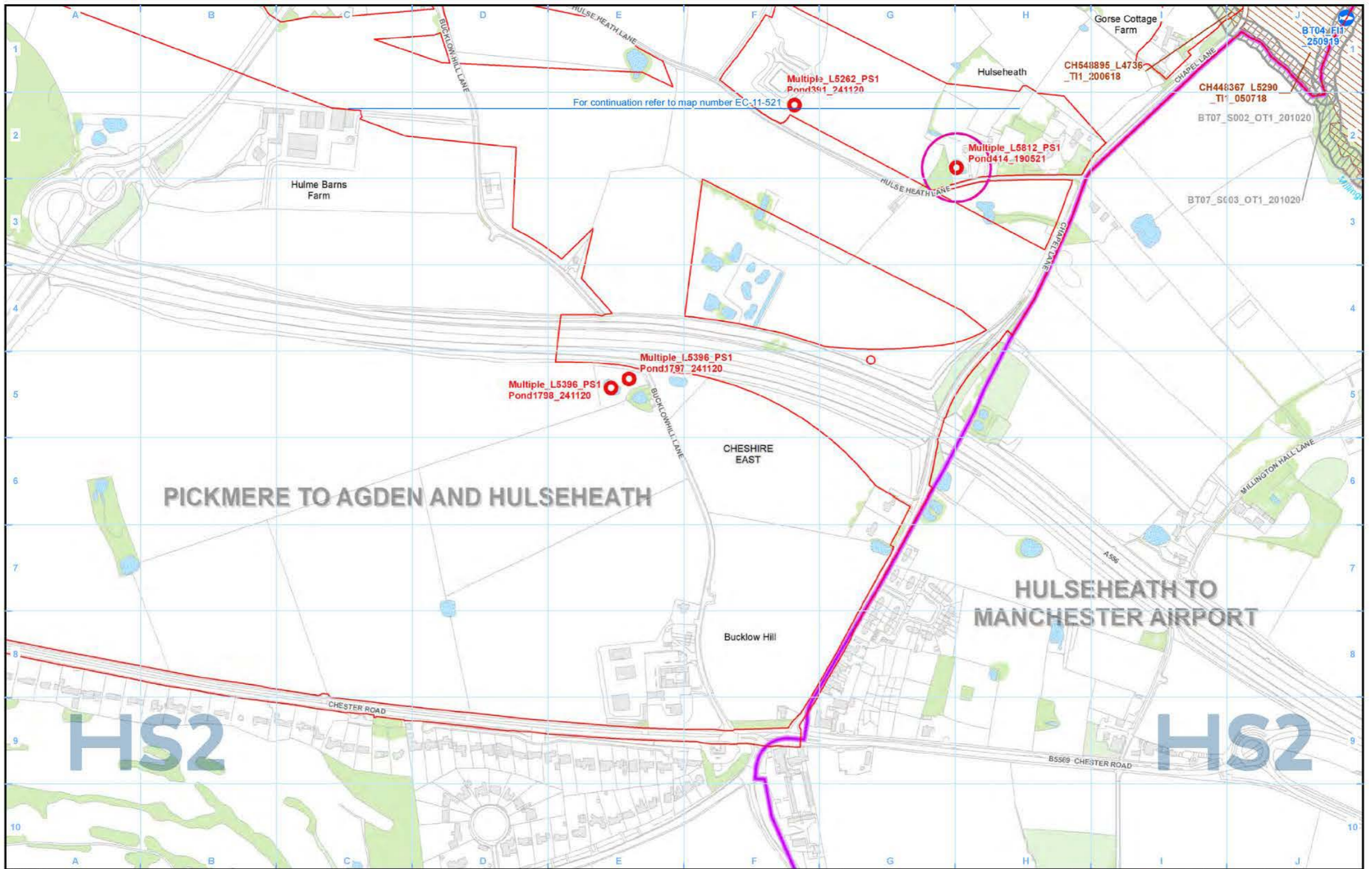
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<b>Map Number</b> EC-11-520-R1		<b>Map Name</b> Other Protected and Notable Species (1) SES1 and AP1 ES				<small>Registered in England. Registration number 06791506. Registered office: Two Snowhill, Snow Hill Queensway, Birmingham B4 6GA.</small>		<small>© Crown copyright and database rights 2021 OS 100049150</small>		<small>Scale at A3: 1:5,000</small> 	
<b>Community Area MA03:</b> Pickmere to Agden and Hulseheath		<small>Doc Number: 2PT24-MWJ-EV-MAP-M000-003422-P01</small>		<small>Date: 21/04/22</small>							





<b>Legend</b> <ul style="list-style-type: none"> <li>Route in tunnel</li> <li>Route on surface</li> <li>Depot, station, headhouse or portal building</li> <li>Land potentially required during construction</li> <li>Community area boundary</li> <li>County boundary</li> <li>District/Borough boundary</li> </ul>		<ul style="list-style-type: none"> <li>Watercourse</li> <li>Water body</li> <li>Woodland (verified by survey)</li> <li>Area contains new survey data</li> </ul>		<b>Otter:</b> <ul style="list-style-type: none"> <li>Active otterholt</li> <li>Potential otterholt</li> <li>Suitable habitat for otter</li> </ul>		<b>White clawed crayfish:</b> <ul style="list-style-type: none"> <li>Manual search and/or trapping conducted and presence confirmed</li> <li>Manual search and/or trapping conducted and assumed absent</li> <li>Site identified as potentially suitable but no access available</li> </ul>		<b>Pond survey:</b> <ul style="list-style-type: none"> <li>Pond survey - national pond survey</li> <li>Pond survey - PSYM</li> <li>Pond survey - rapid assessment method</li> </ul>		<b>Fish:</b> <ul style="list-style-type: none"> <li>Fish survey location</li> <li>Terrestrial invertebrate</li> <li>Terrestrial invertebrate survey extent</li> </ul>	
<b>Map Number</b> EC-11-521		<b>Map Name</b> Other Protected and Notable Species (1) SES1 and AP1 ES				<small>Registered in England. Registration number 06791596. Registered office: Two Snowhill, Snow Hill Queensway, Birmingham B4 6GA.</small>		<small>© Crown copyright and database rights 2021 OS 100049150</small>		<b>Scale at A3: 1:5,000</b> 	
<b>Community Area MA03:</b> Pickmere to Agden and Hulseheath		<b>Doc Number:</b> 2PT24-MWJ-EV-MAP-M000-001399-P01		<b>Date:</b> 21/04/22							





**Legend**

Route in tunnel	Watercourse
Route on surface	Water body
Depot, station, headhouse or portal building	Woodland (verified by survey)
Land potentially required during construction	Area contains new survey data
Community area boundary	
County boundary	
District/Borough boundary	

**Otter:**

Active otter holt
Potential otter holt
Suitable habitat for otter

**White clawed crayfish:**

Manual search and/or trapping conducted and presence confirmed
Manual search and/or trapping conducted and assumed absent
Site identified as potentially suitable but no access available

**Pond survey:**

Pond survey - national pond survey
Pond survey - PSYM
Pond survey - rapid assessment method

**Fish:**

Fish survey location
Terrestrial invertebrate
Terrestrial invertebrate survey extent

Map Number: EC-11-521-R1

Map Name: Other Protected and Notable Species (1) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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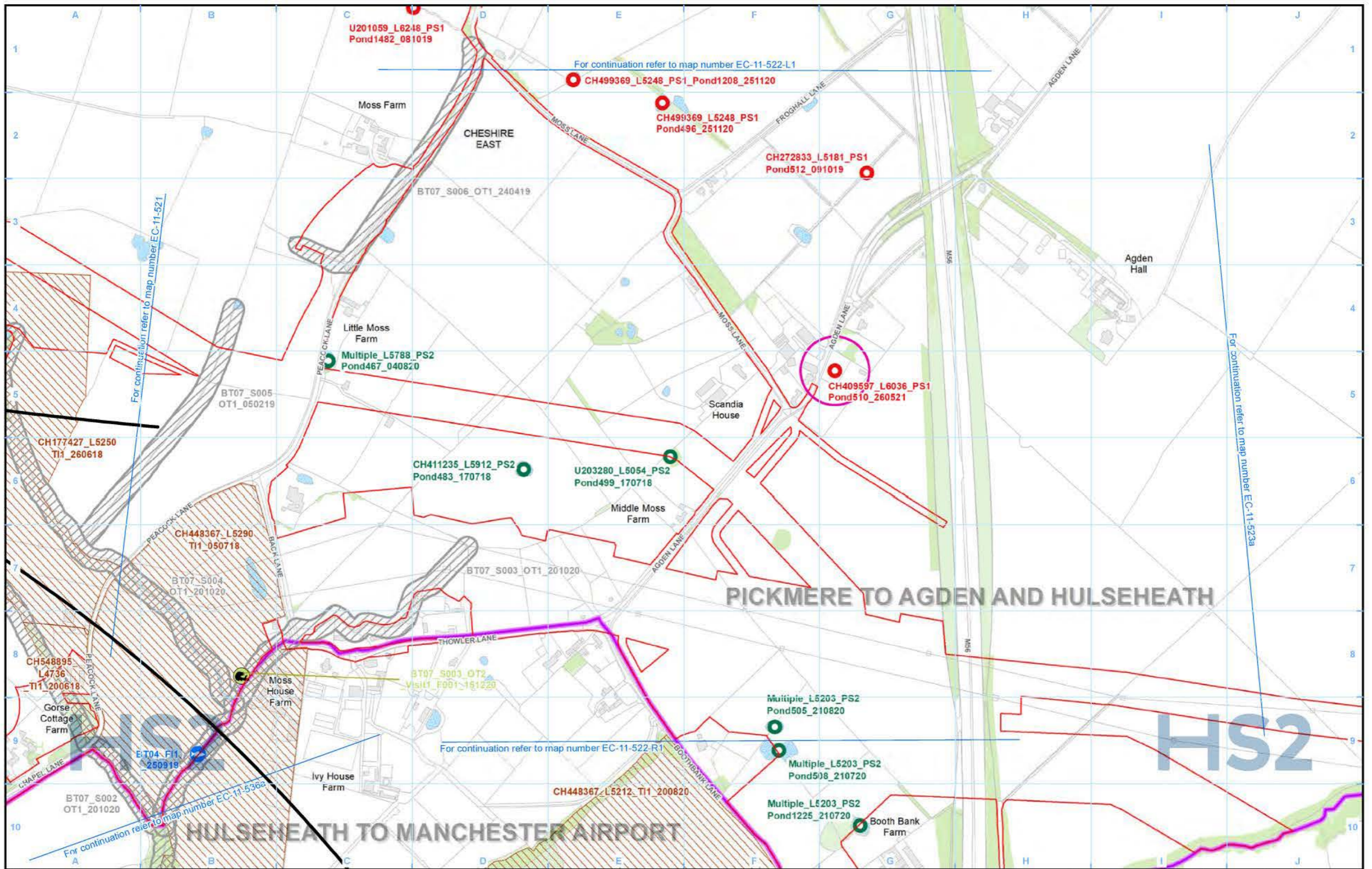
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Doc Number: 2PT24-MWJ-EV-MAP-M000-003423-P01

Date: 21/04/22

Scale at A3: 1:5,000





Legend		Otter:		White clawed crayfish:		Pond survey:		Fish:	
	Route in tunnel		Active otterholt		Manual search and/or trapping conducted and presence confirmed		Pond survey - national pond survey		Fish survey location
	Route on surface		Potential otterholt		Manual search and/or trapping conducted and assumed absent		Pond survey - PSYM		Terrestrial invertebrate
	Depot, station, headhouse or portal building		Suitable habitat for otter		Site identified as potentially suitable but no access available		Pond survey - rapid assessment method		Terrestrial invertebrate survey extent
	Land potentially required during construction								
	Community area boundary								
	County boundary								
	District/Borough boundary								
	Watercourse								
	Water body								
	Woodland (verified by survey)								
	Area contains new survey data								

Map Number	EC-11-522
Map Name	Other Protected and Notable Species (1) SES1 and AP1 ES
Community Area MA03: Pickmere to Agden and Hulseheath	

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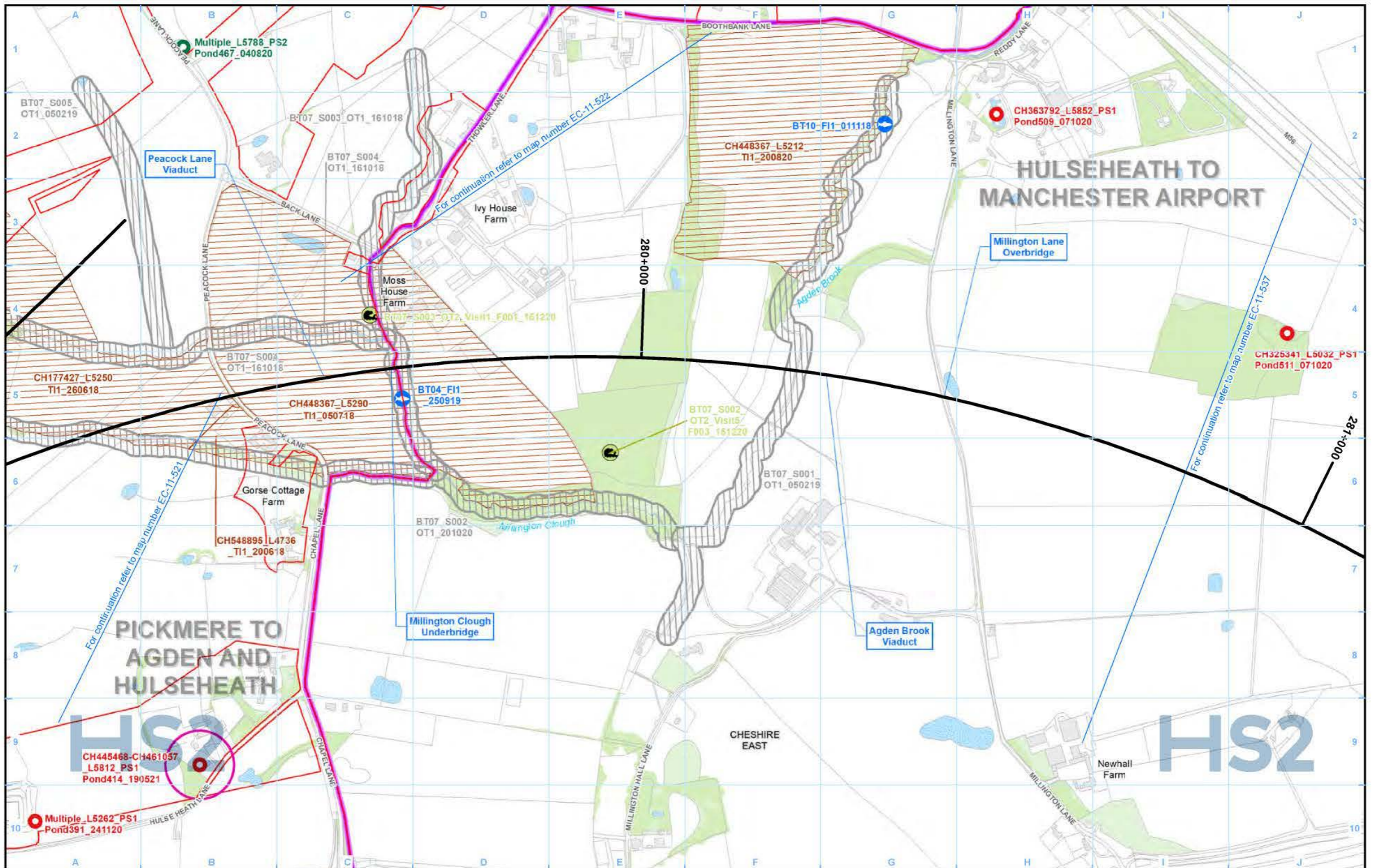
Doc Number: 2PT24-MWJ-EV-MAP-M000-001400-P01

Date: 21/04/22

Scale at A3: 1:5,000

Meters





- 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
  - Water body
  - Woodland (verified by survey)
  - Area contains new survey data

- Otter:**
- Active otterholt
  - Potential otterholt
  - Suitable habitat for otter

- White clawed crayfish:**
- Manual search and/or trapping conducted and presence confirmed
  - Manual search and/or trapping conducted and assumed absent
  - Site identified as potentially suitable but no access available

- Pond survey:**
- Pond survey - national pond survey
  - Pond survey - PSYM
  - Pond survey - rapid assessment method

- Fish:**
- Fish survey location
  - Terrestrial invertebrate
  - Terrestrial invertebrate survey extent

Map Number: EC-11-536a

Map Name: Other Protected and Notable Species (1) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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Date: 21/04/22

Scale at A3: 1:5,000

Scale bar: 0 50 100 150 200 Metres



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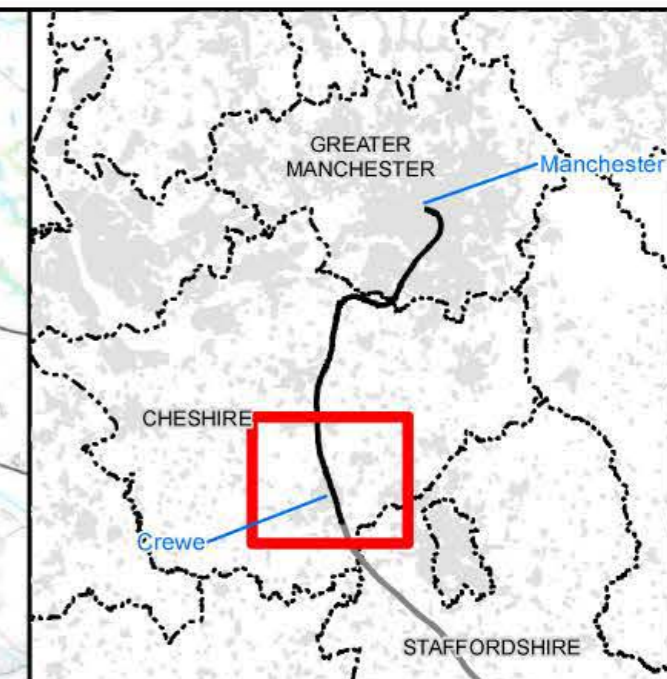
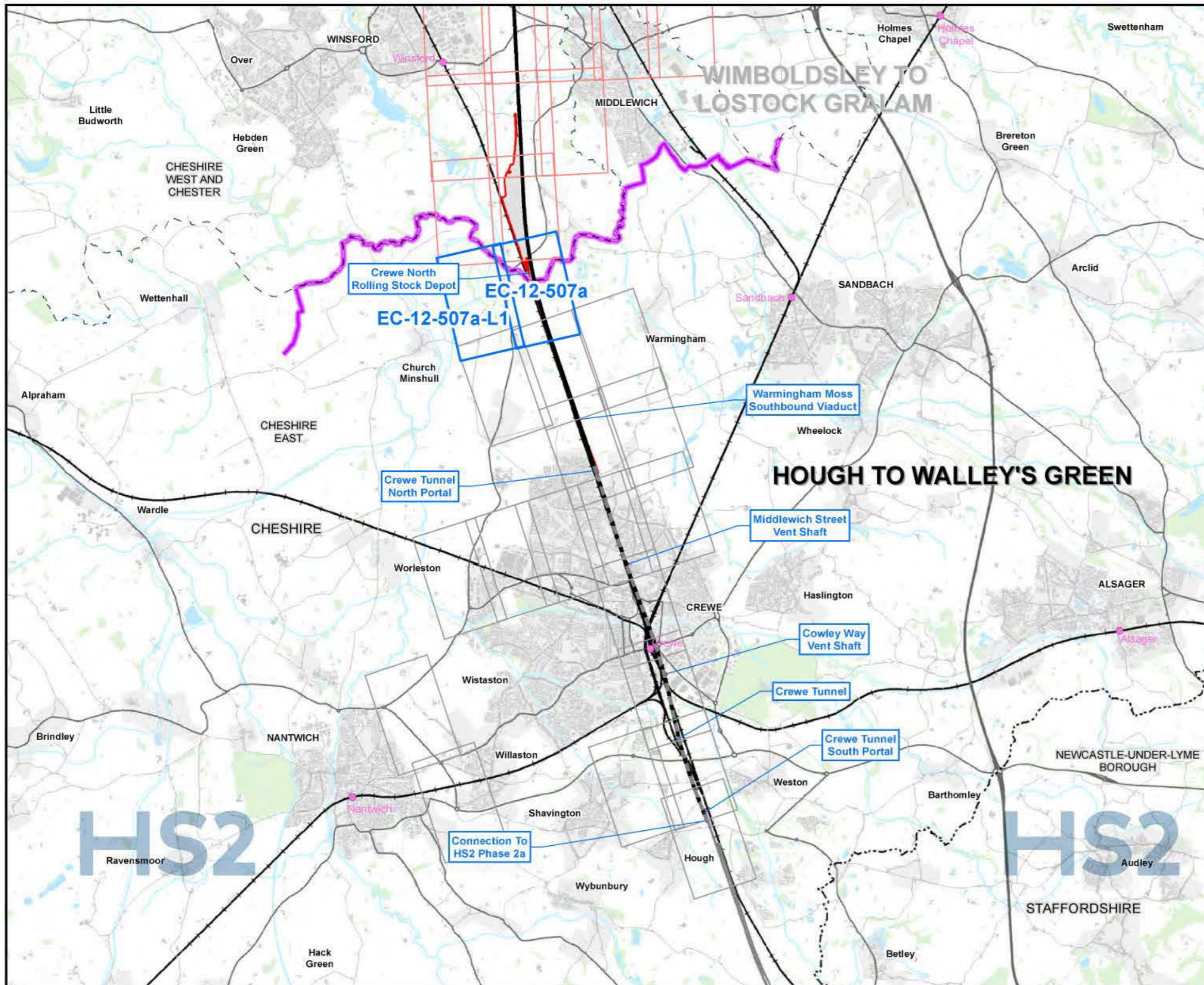


## **High Speed Rail (Crewe – Manchester)**

**Background information and data accompanying  
Supplementary Environmental Statement 1 and  
Additional Provision 1 Environmental Statement**

EC-12 – Other Protected and Notable Species (2)





**Map Series Information:**  
 This map series shows the extent of various protected species surveys conducted to inform the Environmental Statement.

- 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 Area with no amendment
  - Map sheets not included in this community area

Map Number: EC-12-INDEX-MA01  
 Map Name: Index Map of:  
 Other Protected and Notable Species (2) SES1 and AP1 ES  
 Community Area MA01:  
 Hough to Walley's Green

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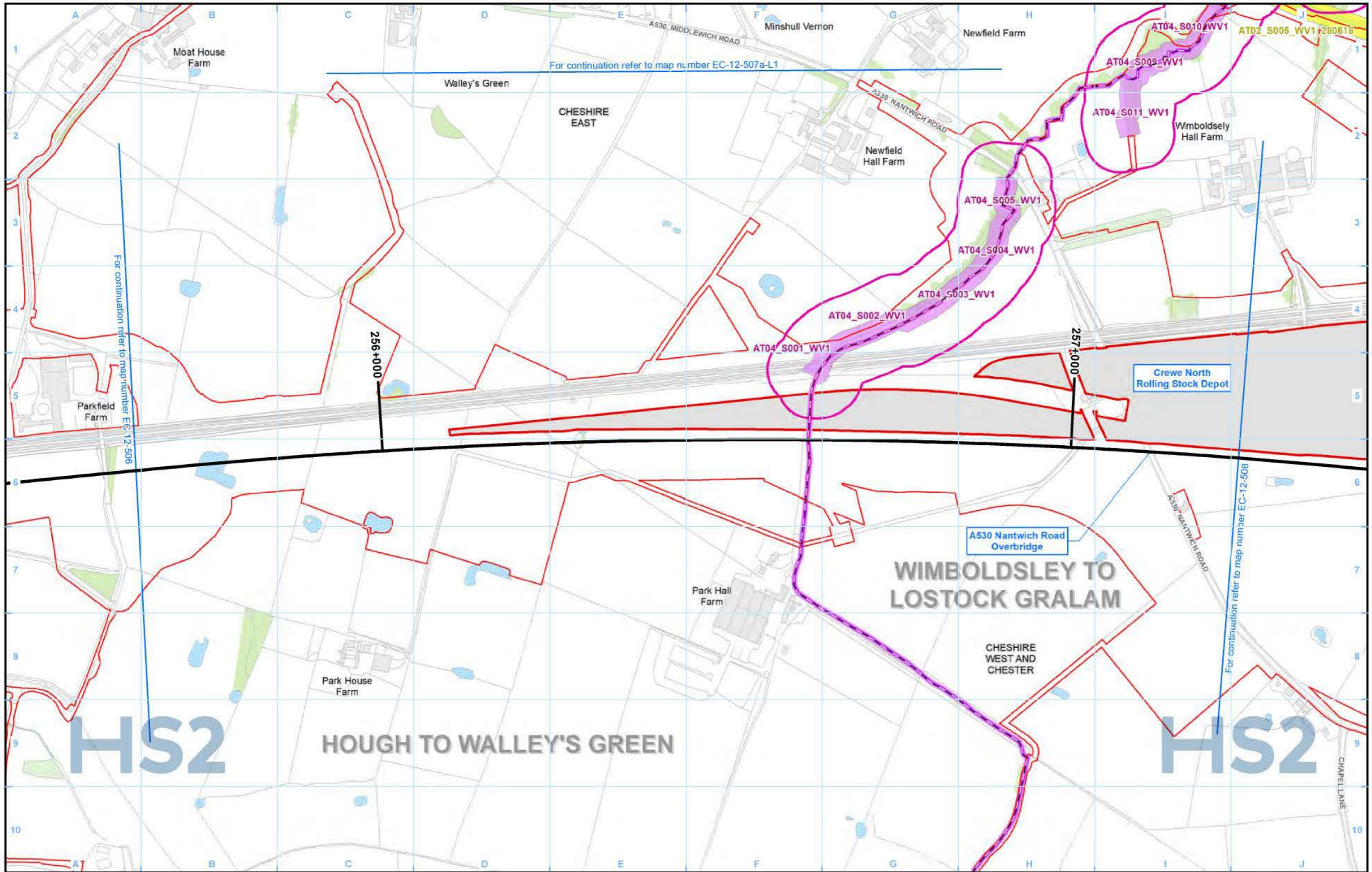
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Doc Number: 2PT24-MWJ-EV-MAP-M000-001585-P01 Date: 20/04/22





Legend		
		<b>Water vole:</b>
	<b>Aquatic invertebrate:</b>	

Map Number	EC-12-507a
Map Name	Other Protected and Notable Species (2) SES1 and AP1 ES
Community Area MA01: Hough to Walley's Green	

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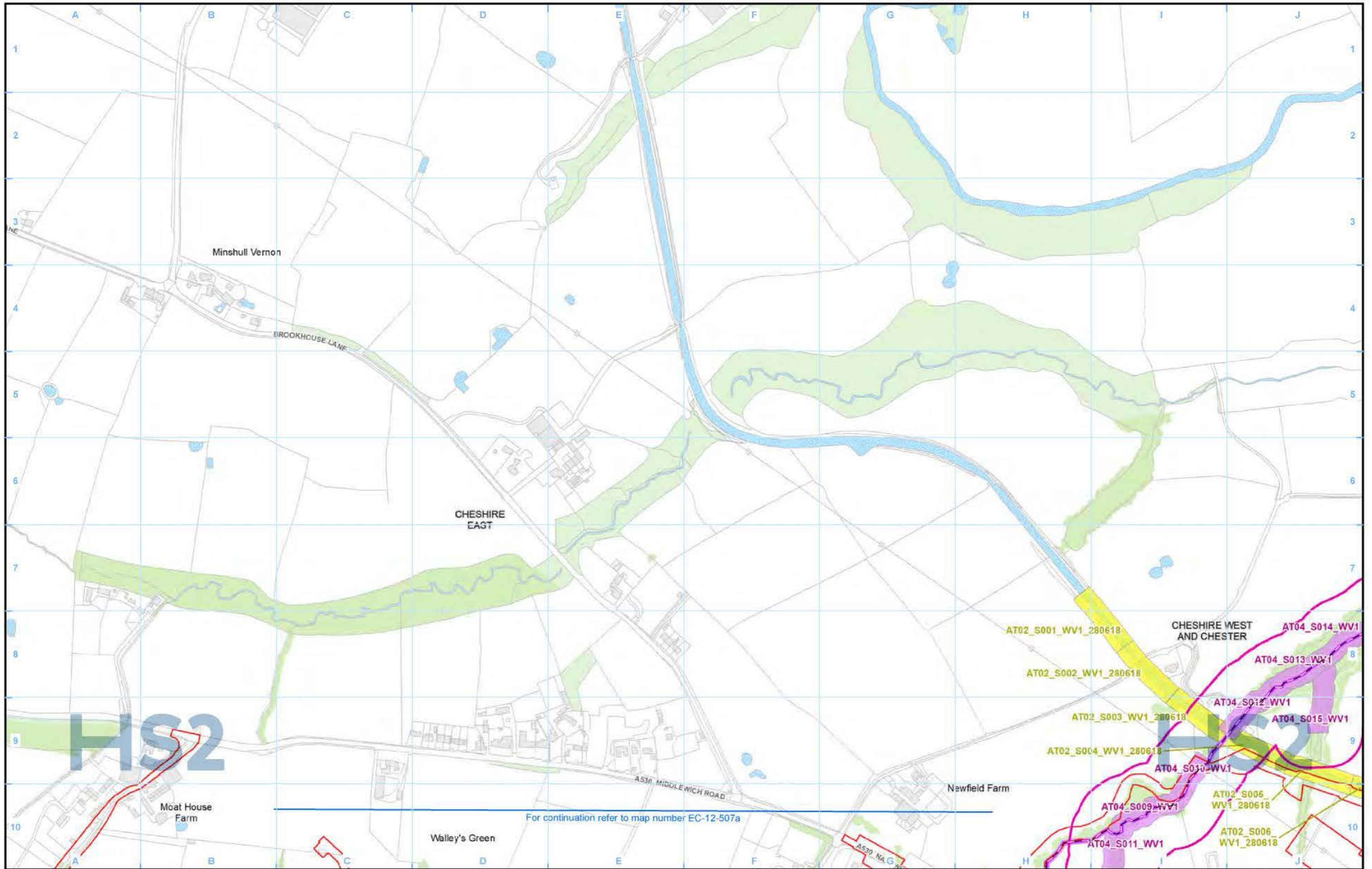
Doc Number: 2PT24-MWJ-EV-MAP-M000-001518-P01

Scale at A3: 1:5,000

Meters

Date: 20/04/22





**Legend**

<ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> <li> District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li> Watercourse</li> <li> Water body</li> <li> Woodland (verified by survey)</li> <li> Area contains new survey data</li> <li><b>Aquatic invertebrate:</b></li> <li> Aquatic invertebrate survey location</li> </ul>	<ul style="list-style-type: none"> <li><b>Water vole:</b></li> <li> Water vole survey undertaken - presence confirmed</li> <li> Water vole survey undertaken - assumed absent</li> <li> Watercourse potentially suitable for water vole - no or limited access for survey</li> </ul>
--	--	--

Map Number: EC-12-507a-L1

Map Name: Other Protected and Notable Species (2) SES1 and AP1 ES

Community Area MA01: Hough to Walley's Green

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Doc Number: 2PT24-MWJ-EV-MAP-M000-003963-P01

Date: 20/04/22

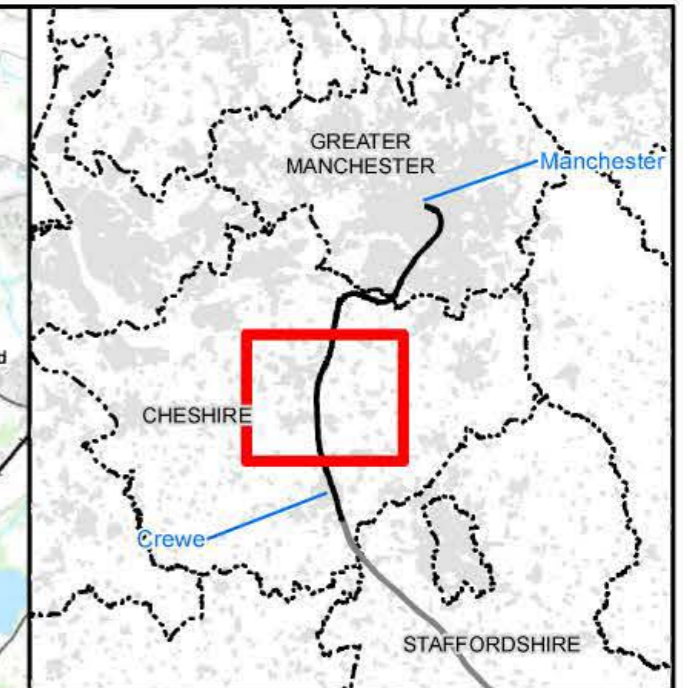
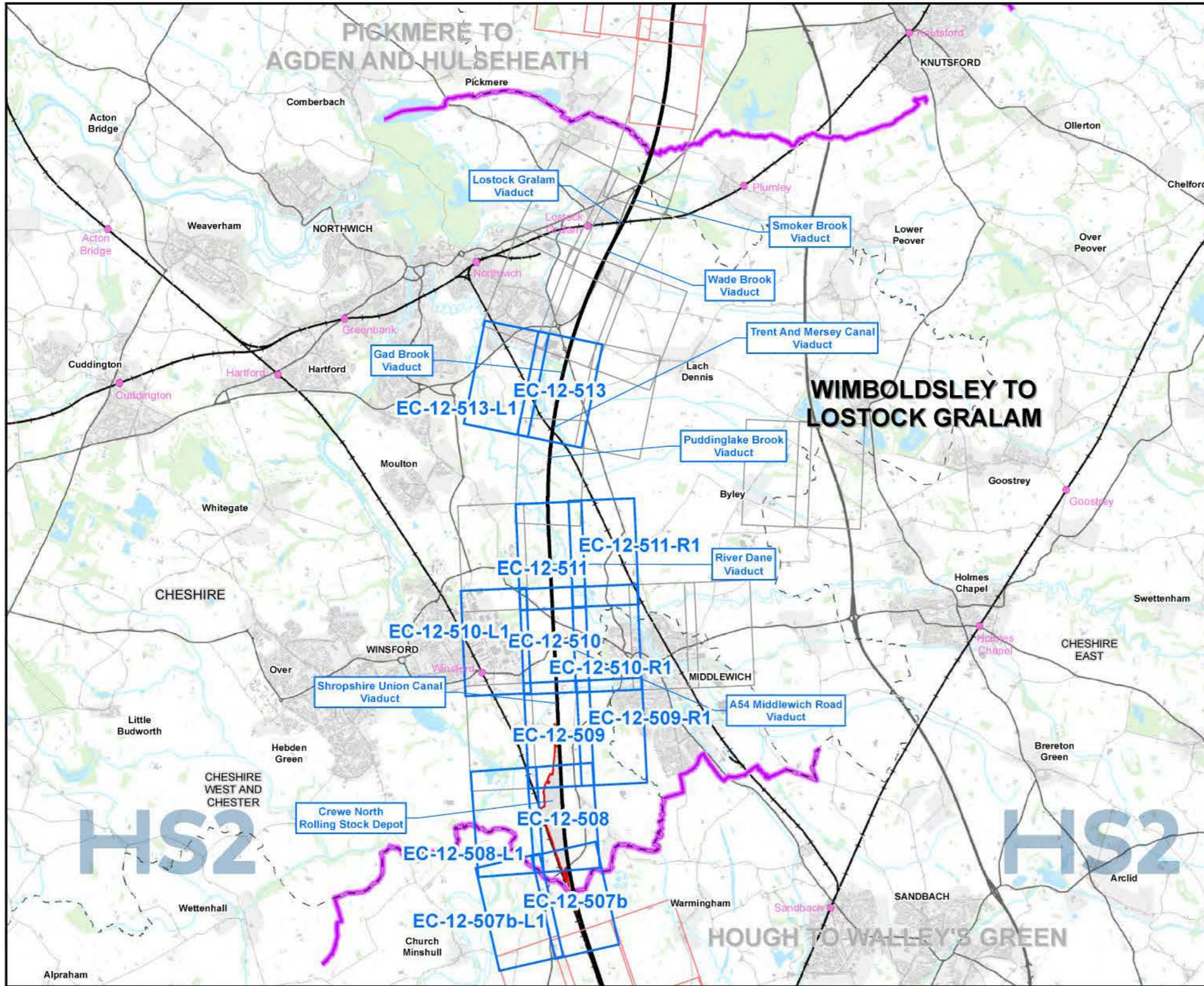
Scale at A3: 1:5,000

For continuation refer to map number EC-12-507a



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**Map Series Information:**  
 This map series shows the extent of various protected species surveys conducted to inform the Environmental Statement.

- 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 Area with no amendment
  - Map sheets not included in this community area

Map Number: EC-12-INDEX-MA02  
 Map Name: Index Map of:  
 Other Protected and Notable Species (2) SES1 and AP1 ES  
 Community Area MA02:  
 Wimboldsley to Lostock Gralam

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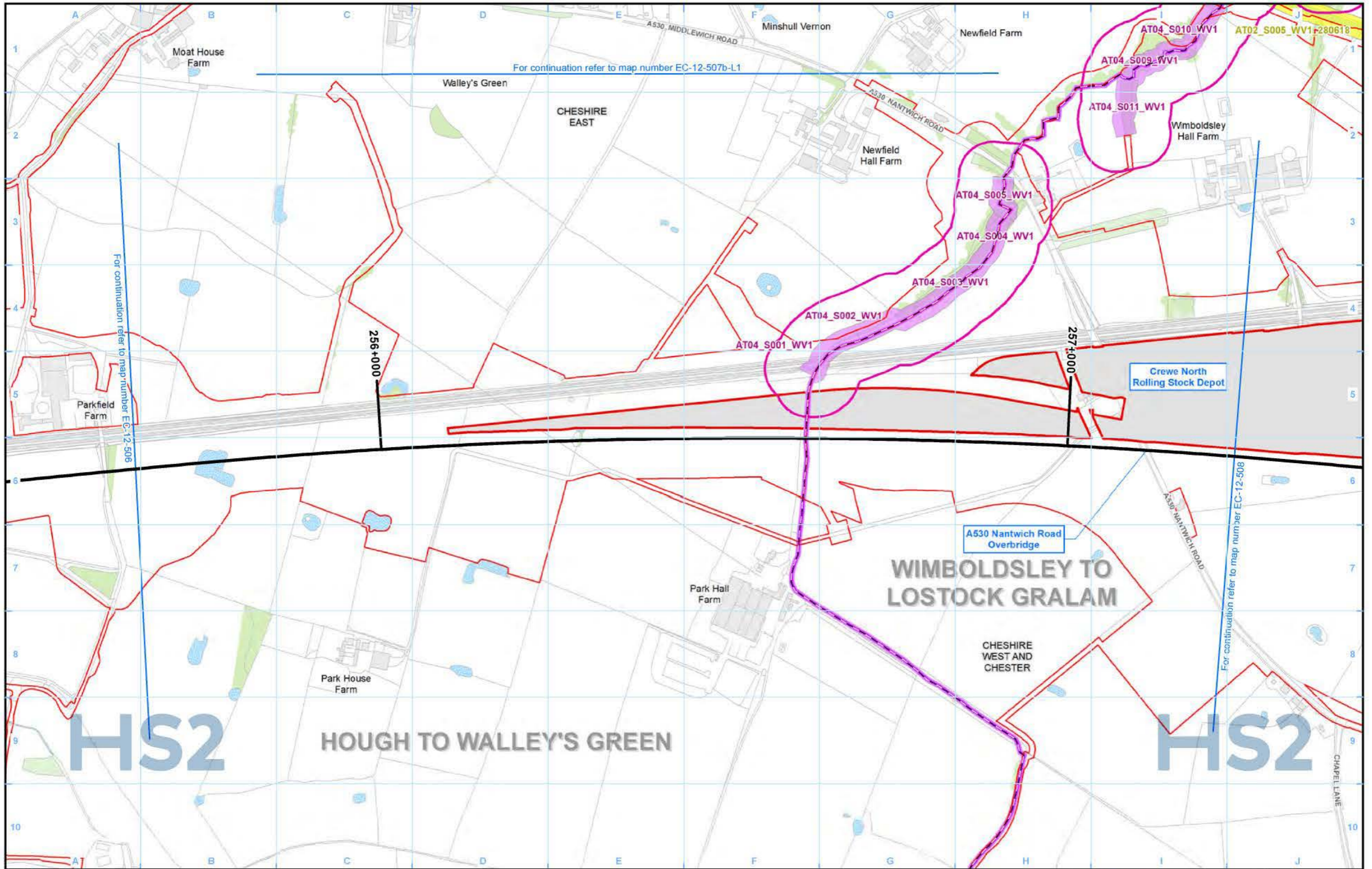
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Scale at A3: 1:75,000

Doc Number: 2PT24-MWJ-EV-MAP-M000-001586-P01 Date: 20/04/22

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





**Legend**

Route in tunnel	Watercourse	Water vole: Water vole survey undertaken - presence confirmed
Route on surface	Water body	Water vole survey undertaken - assumed absent
Depot, station, headhouse or portal building	Woodland (verified by survey)	Watercourse potentially suitable for water vole - no or limited access for survey
Land potentially required during construction	Area contains new survey data	
Community area boundary	Aquatic invertebrate: Aquatic invertebrate survey location	
County boundary		
District/Borough boundary		

**Water vole:**

	Water vole survey undertaken - presence confirmed
	Water vole survey undertaken - assumed absent
	Watercourse potentially suitable for water vole - no or limited access for survey

**Aquatic invertebrate:**

	Aquatic invertebrate survey location
--	--------------------------------------

Map Number	EC-12-507b
Map Name	Other Protected and Notable Species (2) SES1 and AP1 ES
Community Area MA02: Wimboldsley to Lostock Gralam	

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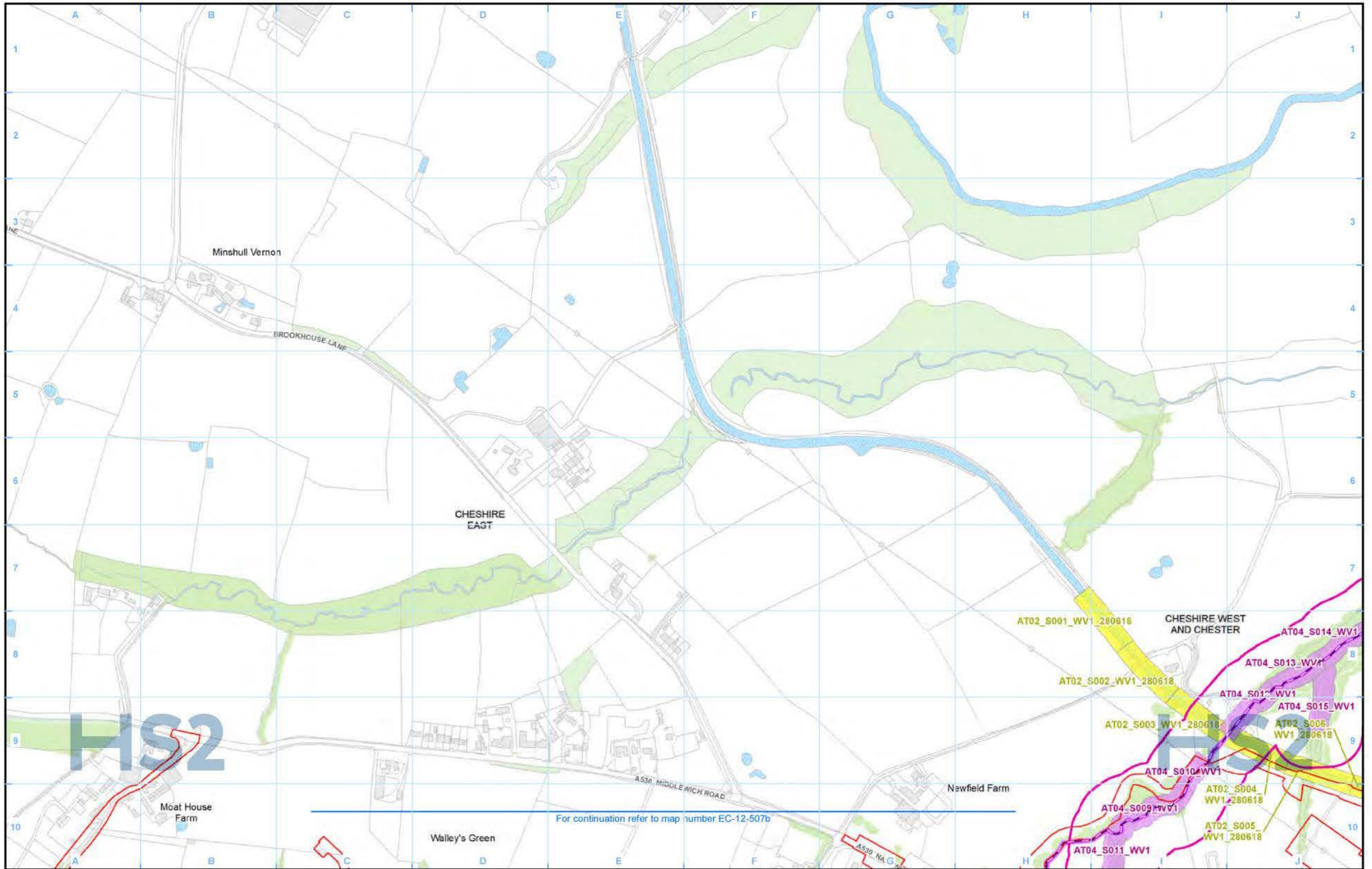
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Doc Number: 2P2T4-MWJ-EV-MAP-M000-001519-P01

Date: 20/04/22

Scale at A3: 1:5,000





**Legend**

<ul style="list-style-type: none"> <li>Route in tunnel</li> <li>Route on surface</li> <li>Depot, station, headhouse or portal building</li> <li>Land potentially required during construction</li> <li>Community area boundary</li> <li>County boundary</li> <li>District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li>Watercourse</li> <li>Water body</li> <li>Woodland (verified by survey)</li> <li>Area contains new survey data</li> <li>Aquatic invertebrate:</li> <li>Aquatic invertebrate survey location</li> </ul>	<p><b>Water vole:</b></p> <ul style="list-style-type: none"> <li>Water vole survey undertaken - presence confirmed</li> <li>Water vole survey undertaken - assumed absent</li> <li>Watercourse potentially suitable for water vole - no or limited access for survey</li> </ul>
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Map Number: EC-12-507b-L1

Map Name: Other Protected and Notable Species (2) SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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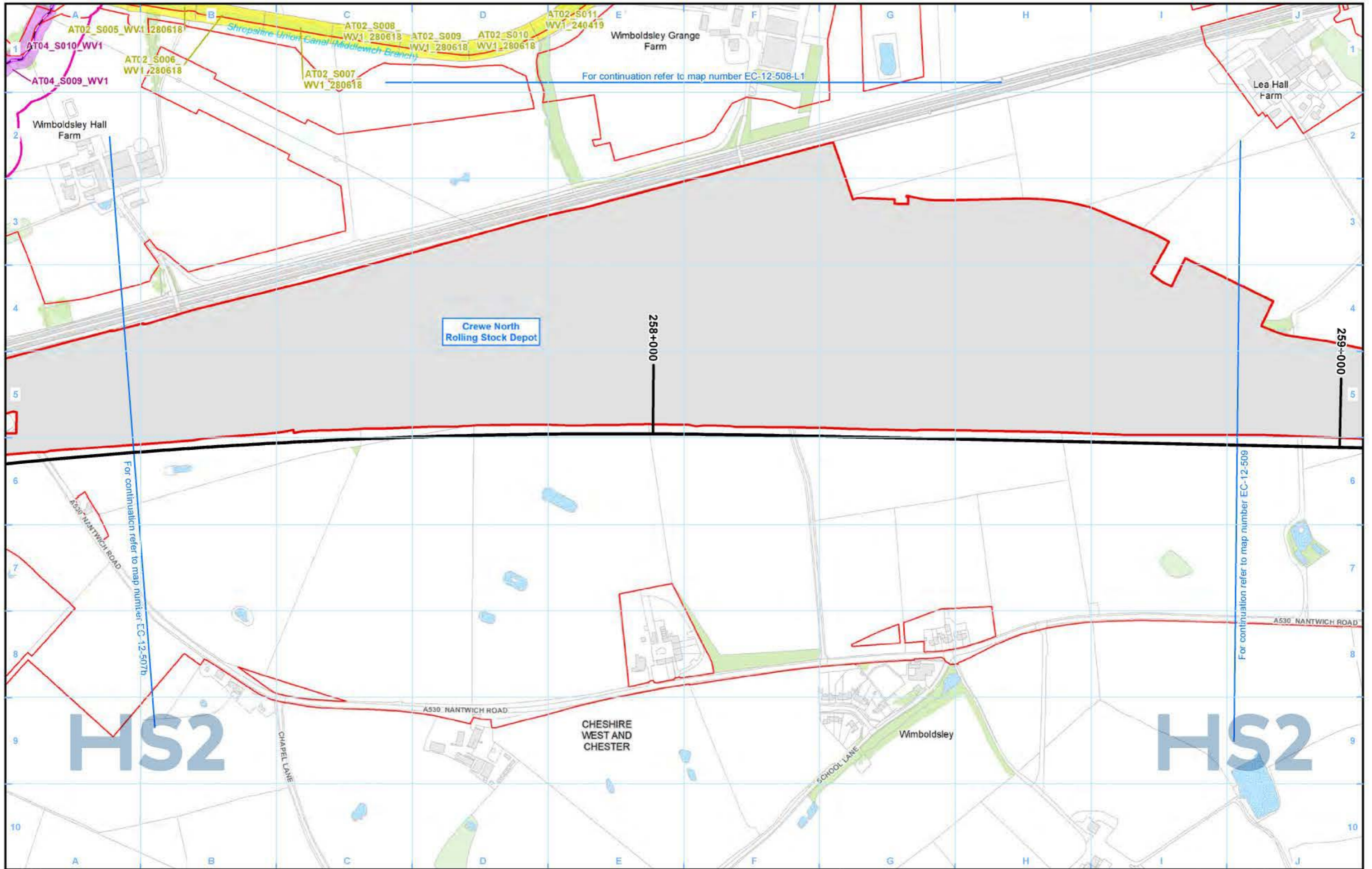
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Doc Number: 2PT24-MWJ-EV-MAP-M000-003964-P01

Date: 20/04/22

For continuation refer to map number EC-12-507b





Legend		

Map Number	EC-12-508
Map Name	Other Protected and Notable Species (2) SES1 and AP1 ES
Community Area MA02: Wimboldsley to Lostock Gralam	

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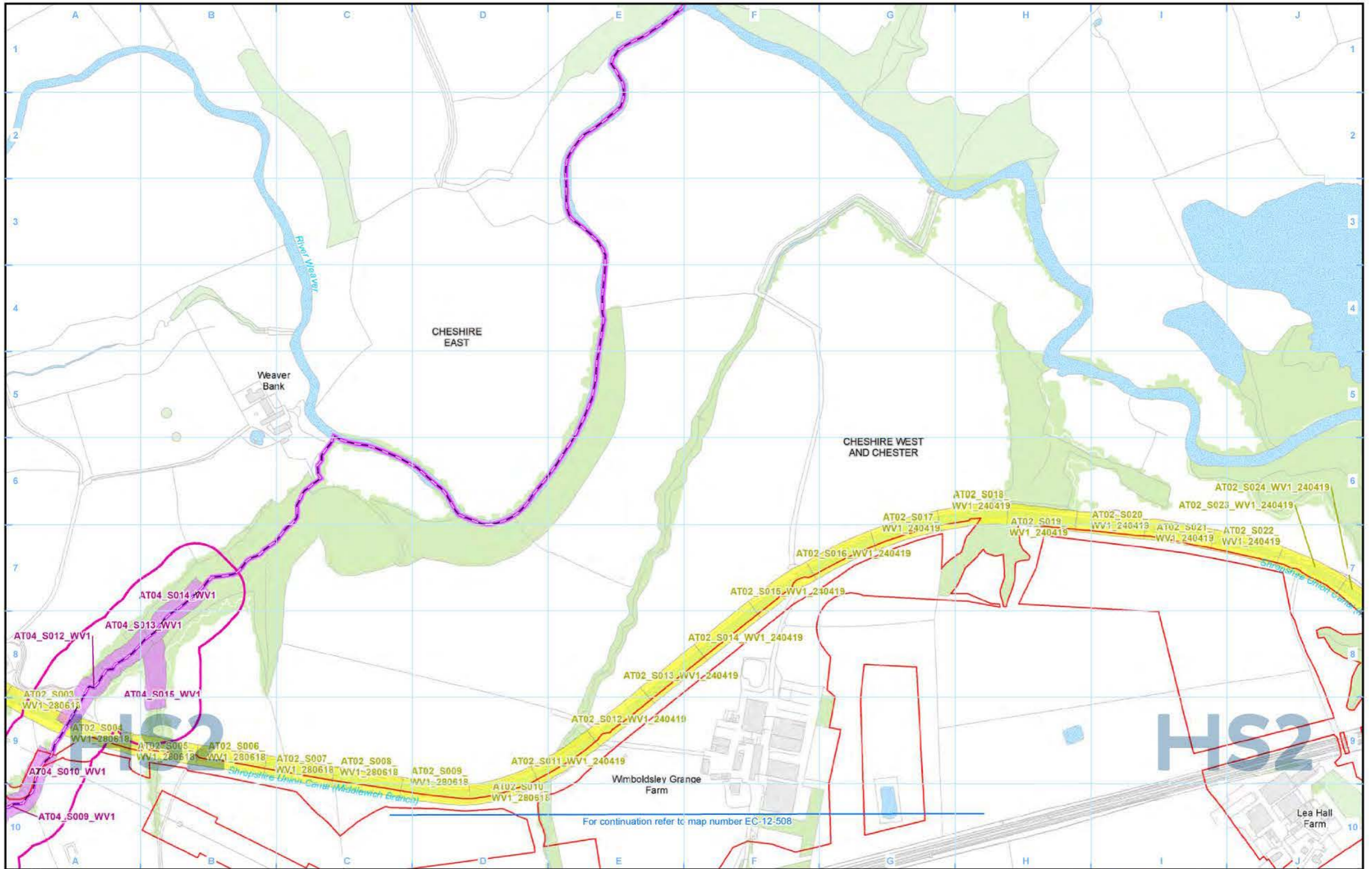
Doc Number: 2PT24-MWJ-EV-MAP-M000-001520-P01

Date: 20/04/22

Scale at A3: 1:5,000

0 50 100 150 200 Metres





**Legend**

<ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> <li> District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li> Watercourse</li> <li> Water body</li> <li> Woodland (verified by survey)</li> <li> Area contains new survey data</li> <li><b>Aquatic invertebrate:</b></li> <li> Aquatic invertebrate survey location</li> </ul>	<ul style="list-style-type: none"> <li><b>Water vole:</b></li> <li> Water vole survey undertaken - presence confirmed</li> <li> Water vole survey undertaken - assumed absent</li> <li> Watercourse potentially suitable for water vole - no or limited access for survey</li> </ul>
--	--	--

Map Number: EC-12-508-L1

Map Name: Other Protected and Notable Species (2) SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

For continuation refer to map number EC-12-508

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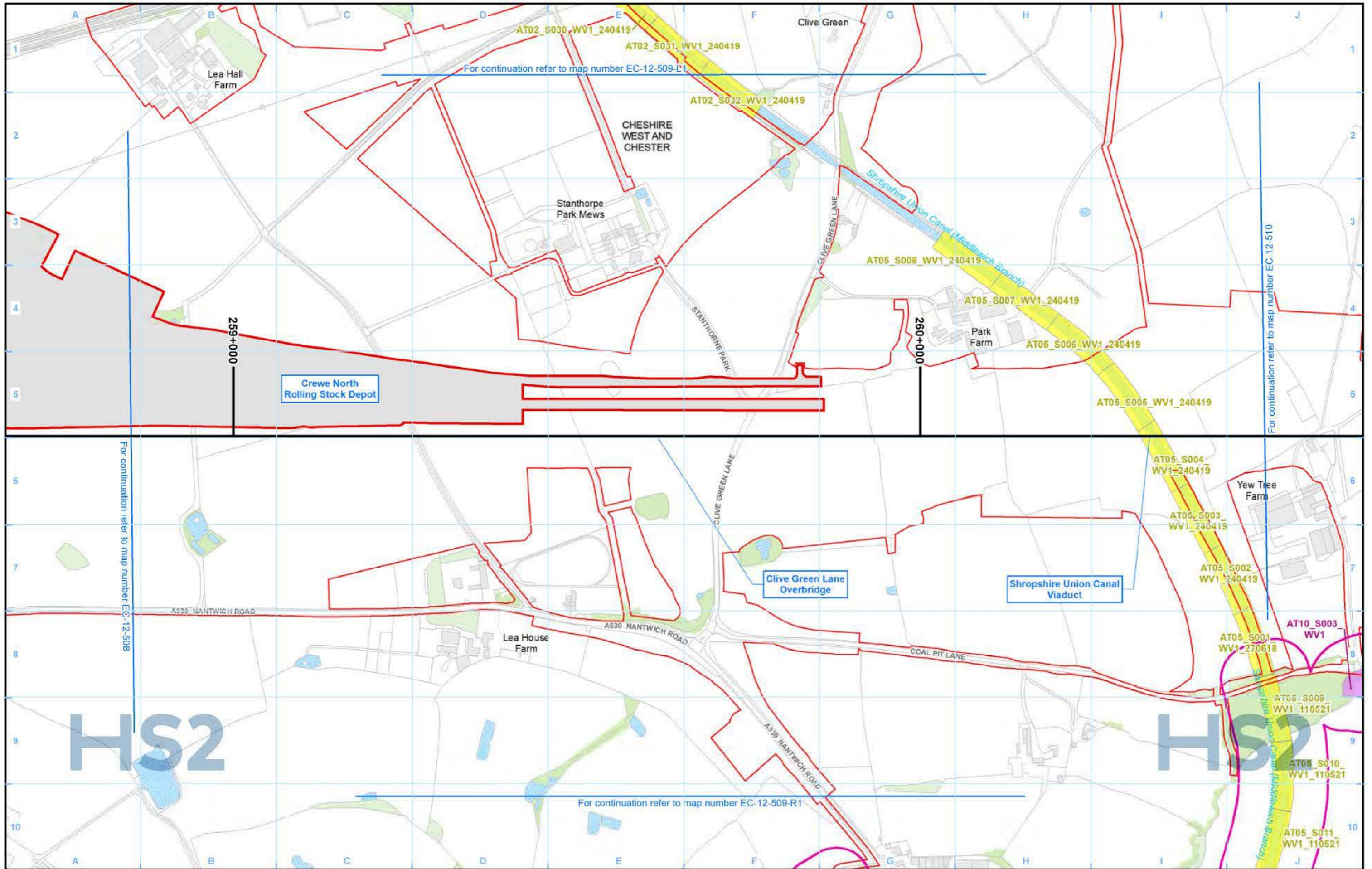
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Doc Number: 2PT24-MWJ-EV-MAP-M000-003461-P01

Date: 20/04/22

Scale at A3: 1:5,000





**Legend**

<ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> <li> District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li> Watercourse</li> <li> Water body</li> <li> Woodland (verified by survey)</li> <li> Area contains new survey data</li> <li> Aquatic invertebrate survey location</li> </ul>	<p><b>Water vole:</b></p> <ul style="list-style-type: none"> <li> Water vole survey undertaken - presence confirmed</li> <li> Water vole survey undertaken - assumed absent</li> <li> Watercourse potentially suitable for water vole - no or limited access for survey</li> </ul>
--	--	--

Map Number: EC-12-509

Map Name: Other Protected and Notable Species (2) SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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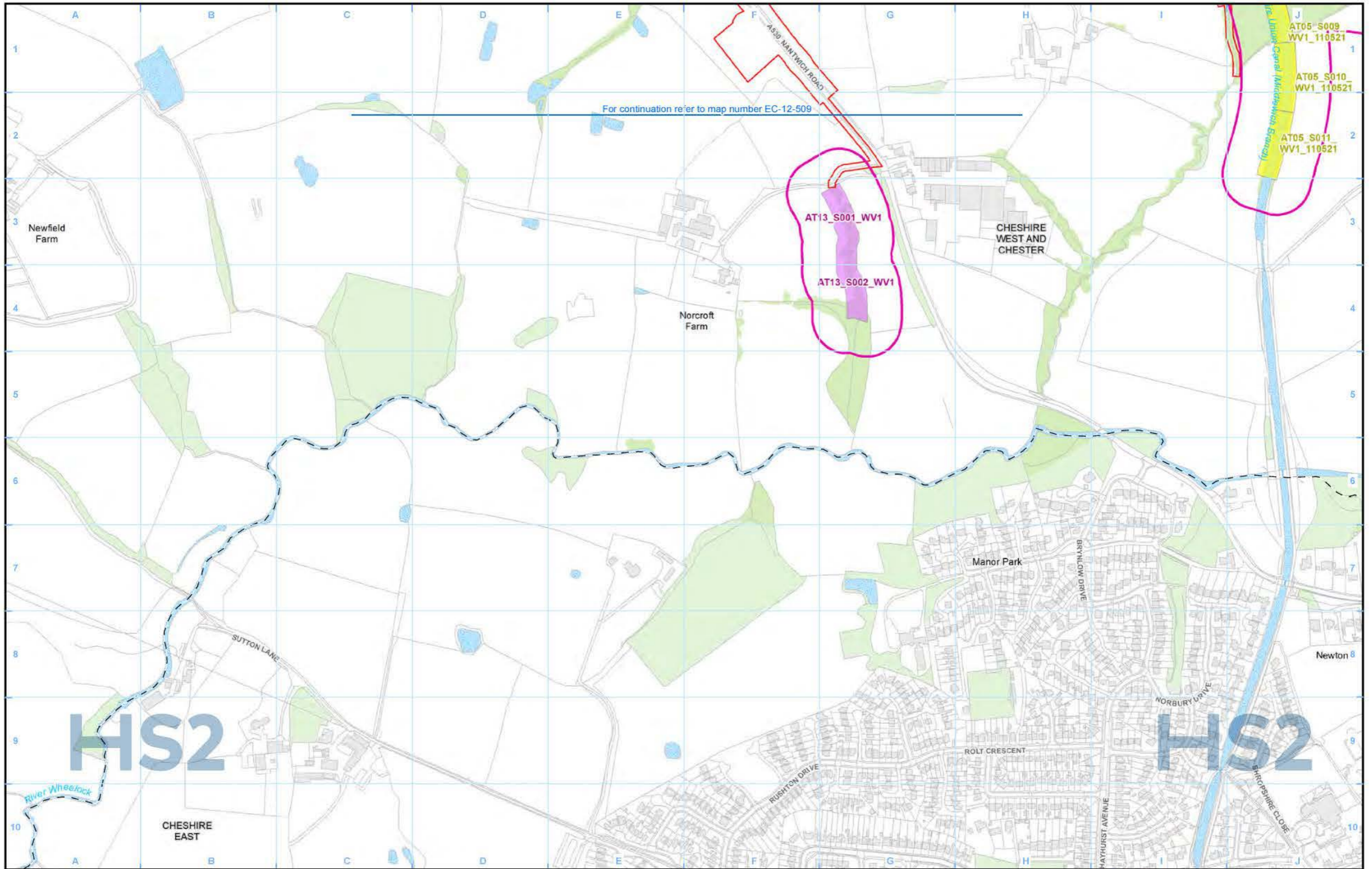
Scale at A3: 1:5,000

Scale bar: 0, 50, 100, 150, 200 Metres

North arrow

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Legend		
		<b>Water vole:</b>
	<b>Aquatic invertebrate:</b>	

Map Number	EC-12-509-R1
Map Name	Other Protected and Notable Species (2) SES1 and AP1 ES
Community Area MA02: Wimboldsley to Lostock Gtalam	

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Doc Number: 2PT24-MWJ-EV-MAP-M000-003463-P01

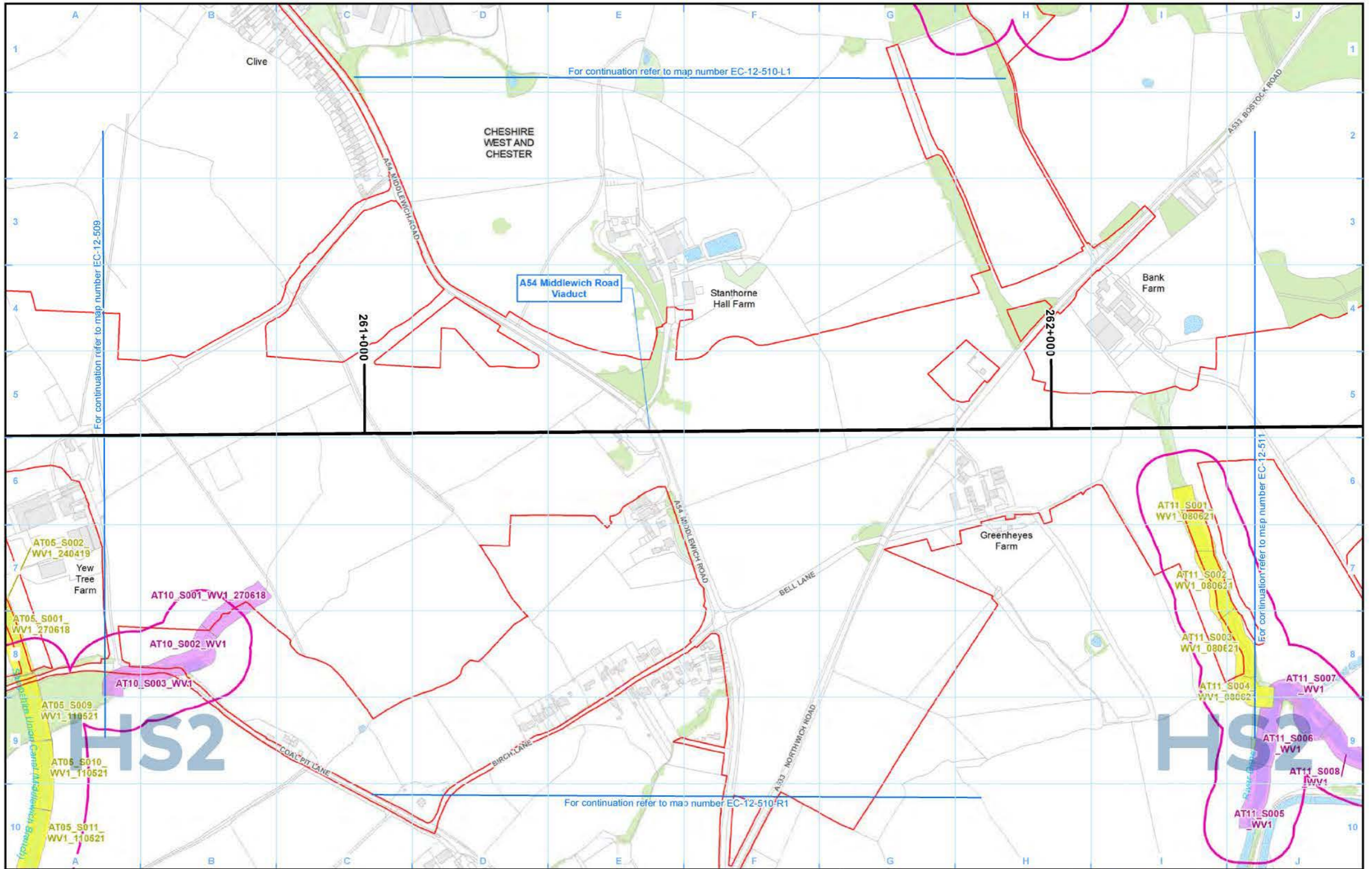
Scale at A3: 1:5,000

Meters

Date: 20/04/22

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For continuation refer to map number EC-12-510-L1

For continuation refer to map number EC-12-509

261+000

262+000

A54 Middlewich Road Viaduct

Stanthorne Hall Farm

Bank Farm

Greenheyes Farm

HS2

HS2

For continuation refer to map number EC-12-510-R1

For continuation refer to map number EC-12-511

Legend		
	Watercourse	Water vole:
	Aquatic invertebrate:	

Map Number	EC-12-510
Map Name	Other Protected and Notable Species (2) SES1 and AP1 ES
	Community Area MA02: Wimboldsley to Lostock Gralam

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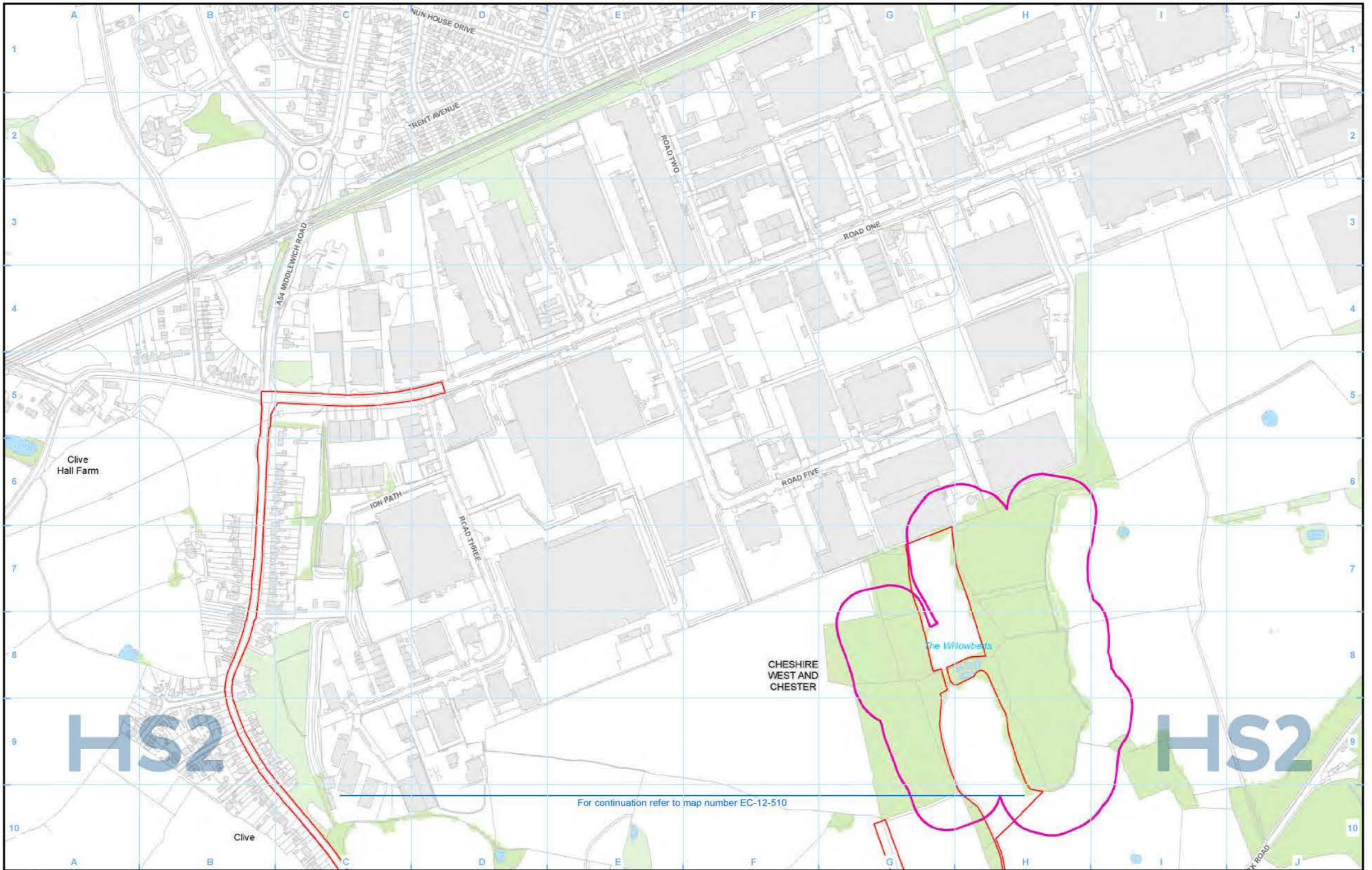
Date: 20/04/22

Scale at A3: 1:5,000

0 50 100 150 200  
Metres

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**Legend**

<ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> <li> District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li> Watercourse</li> <li> Water body</li> <li> Woodland (verified by survey)</li> <li> Area contains new survey data</li> <li><b>Aquatic invertebrate:</b></li> <li> Aquatic invertebrate survey location</li> </ul>	<ul style="list-style-type: none"> <li><b>Water vole:</b></li> <li> Water vole survey undertaken - presence confirmed</li> <li> Water vole survey undertaken - assumed absent</li> <li> Watercourse potentially suitable for water vole - no or limited access for survey</li> </ul>
--	--	--

Map Number: EC-12-510-L1

Map Name: Other Protected and Notable Species (2) SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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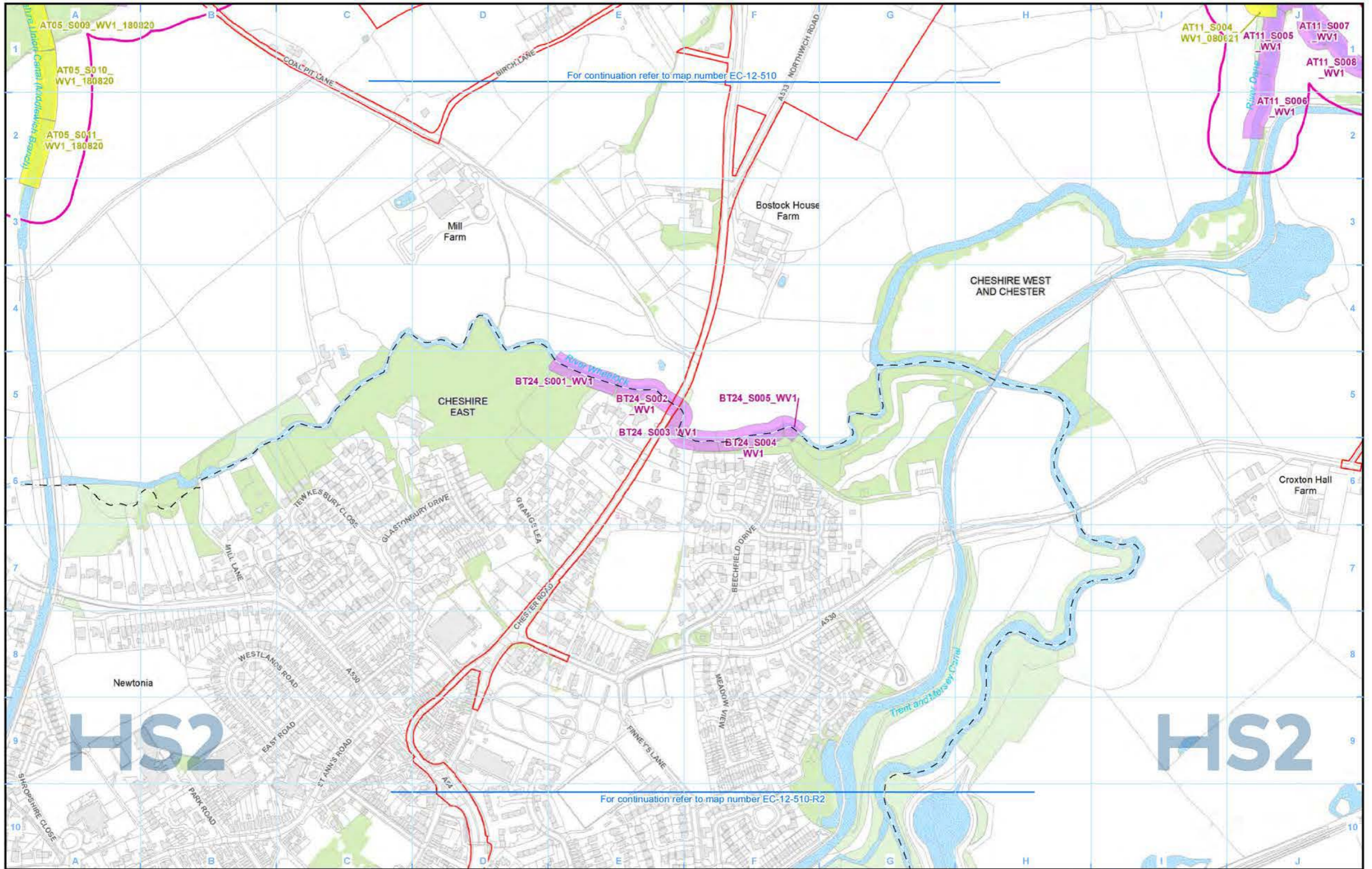
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Doc Number: 2PT24-MWJ-EV-MAP-M000-003464-P01

Date: 20/04/22

Scale at A3: 1:5,000





Legend		
		<b>Water vole:</b>
	<b>Aquatic invertebrate:</b>	

Map Number	EC-12-510-R1
Map Name	Other Protected and Notable Species (2) SES1 and AP1 ES
	Community Area MA02: Wimboldsley to Lostock Gralam

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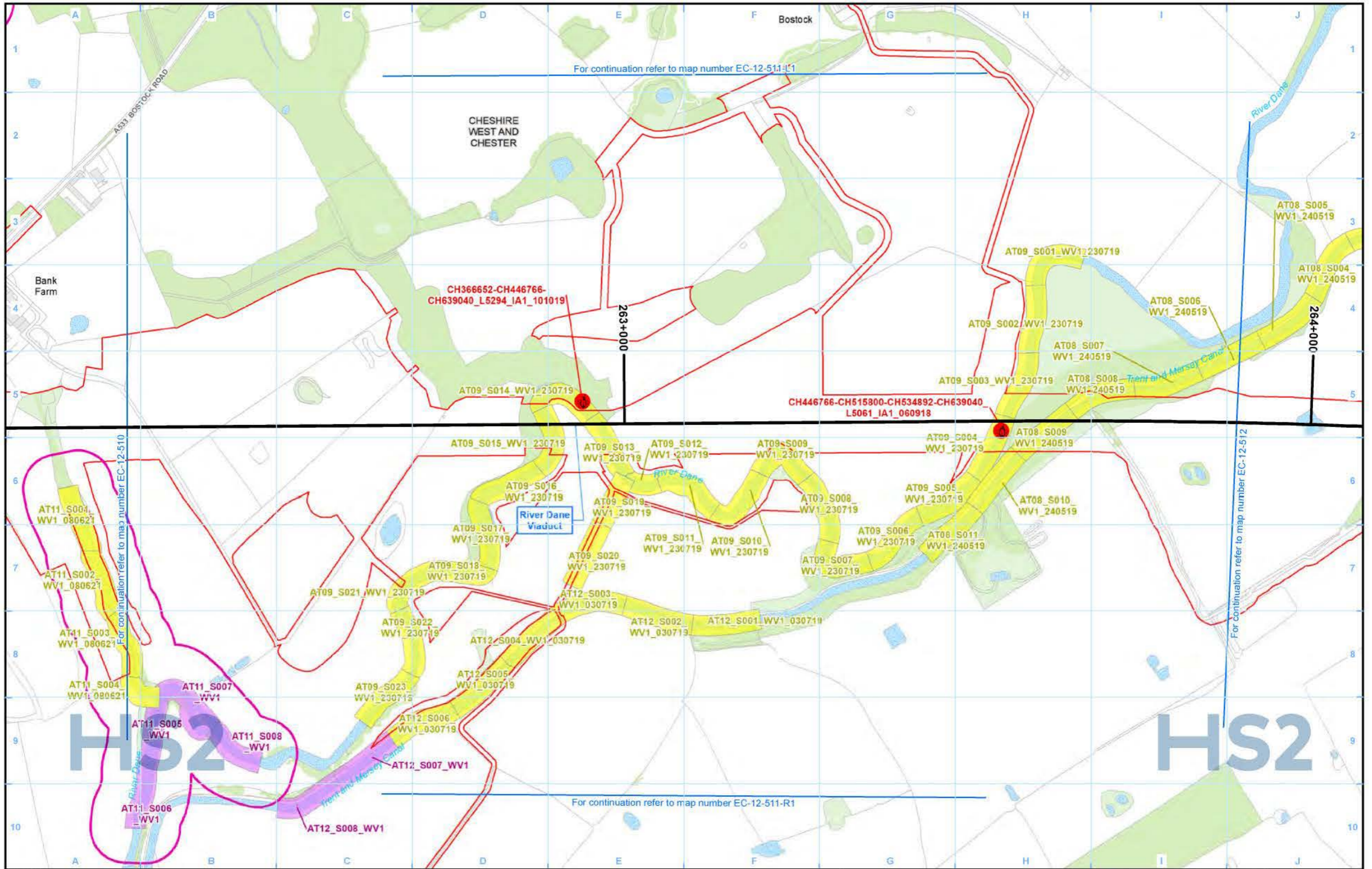
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Doc Number: 2PT24-MWJ-EV-MAP-M000-003465-P01

Scale at A3: 1:5,000

Date: 20/04/22





**Legend**

<ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> <li> District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li> Watercourse</li> <li> Water body</li> <li> Woodland (verified by survey)</li> <li> Area contains new survey data</li> <li><b>Aquatic invertebrate:</b></li> <li> Aquatic invertebrate survey location</li> </ul>	<ul style="list-style-type: none"> <li><b>Water vole:</b></li> <li> Water vole survey undertaken - presence confirmed</li> <li> Water vole survey undertaken - assumed absent</li> <li> Watercourse potentially suitable for water vole - no or limited access for survey</li> </ul>
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Map Number: EC-12-511

Map Name: Other Protected and Notable Species (2) SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Grlam

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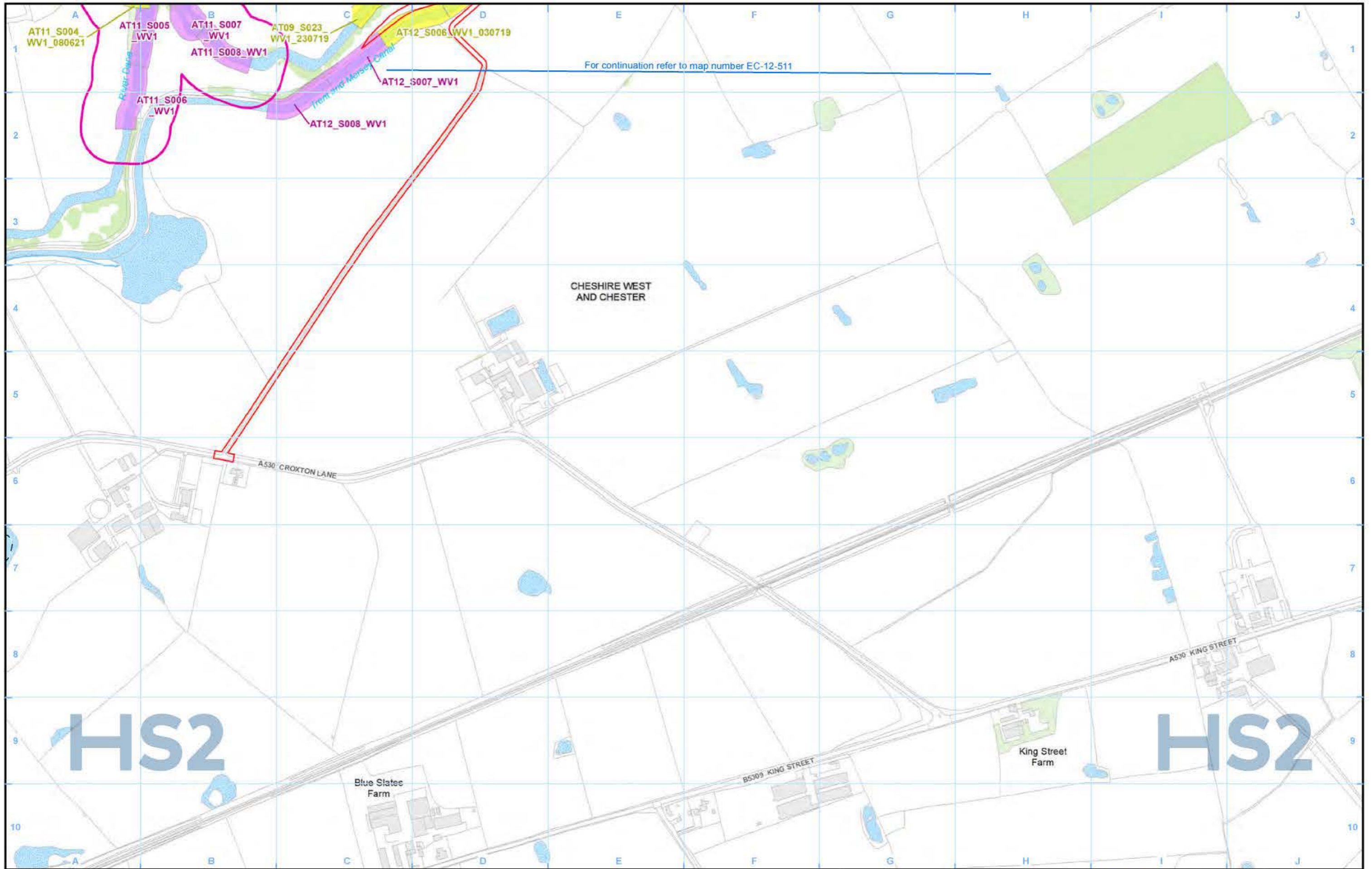
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For continuation refer to map number EC-12-511

Legend		
	Watercourse	Water vole:
	Aquatic invertebrate:	

Map Number	EC-12-511-R1
Map Name	Other Protected and Notable Species (2) SES1 and AP1 ES
Community Area MA02: Wimboldsley to Lostock Gralam	

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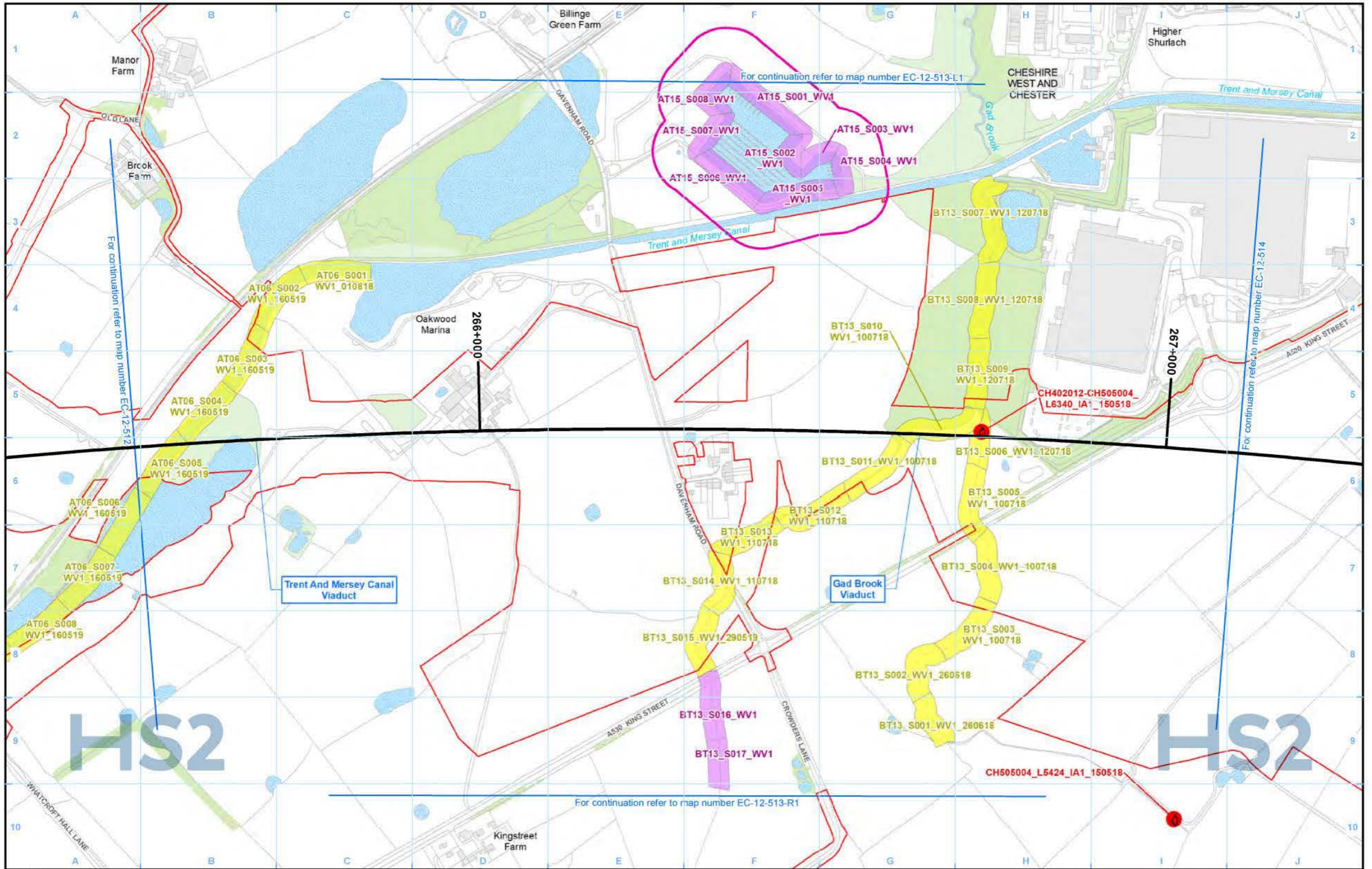
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**Legend**

<ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> <li> District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li> Watercourse</li> <li> Water body</li> <li> Woodland (verified by survey)</li> <li> Area contains new survey data</li> <li><b>Aquatic invertebrate:</b></li> <li> Aquatic invertebrate survey location</li> </ul>	<ul style="list-style-type: none"> <li><b>Water vole:</b></li> <li> Water vole survey undertaken - presence confirmed</li> <li> Water vole survey undertaken - assumed absent</li> <li> Watercourse potentially suitable for water vole - no or limited access for survey</li> </ul>
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Map Number: EC-12-513

Map Name: Other Protected and Notable Species (2) SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gt

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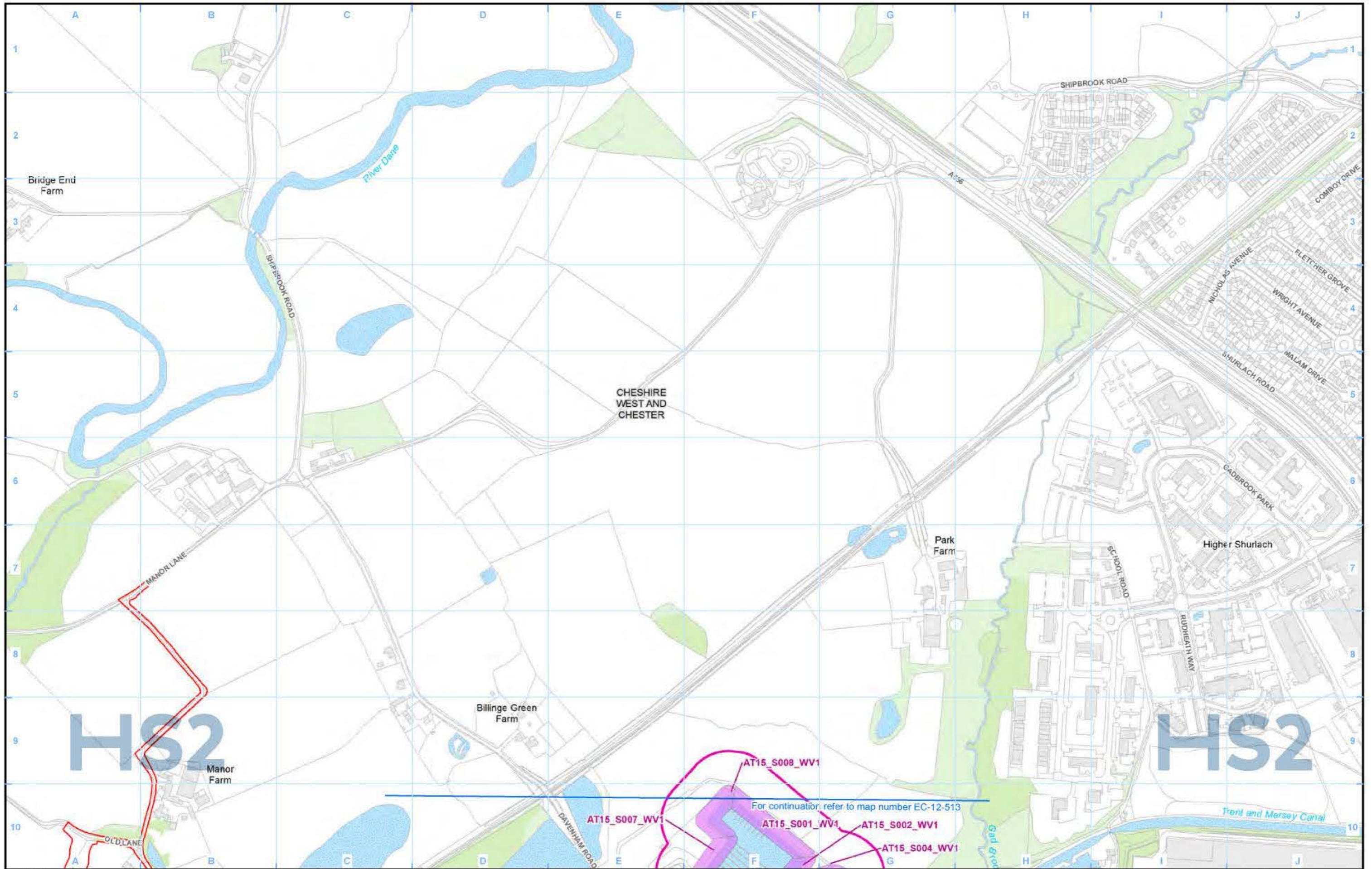
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Date: 20/04/22

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Legend		
	Watercourse	Water vole:
	Aquatic invertebrate:	

Map Number: EC-12-513-L1

Map Name: Other Protected and Notable Species (2) SES1 and AP1 ES

Community Area MA02: Wimboldsley to Lostock Gralam

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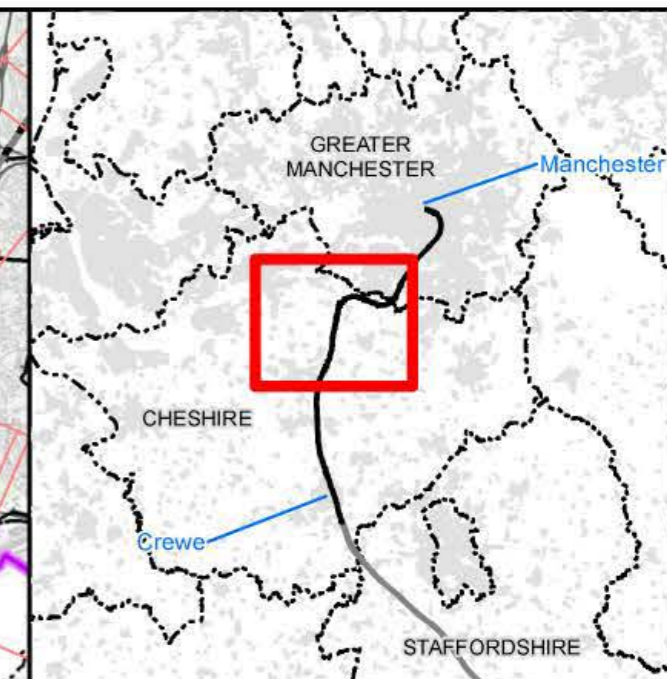
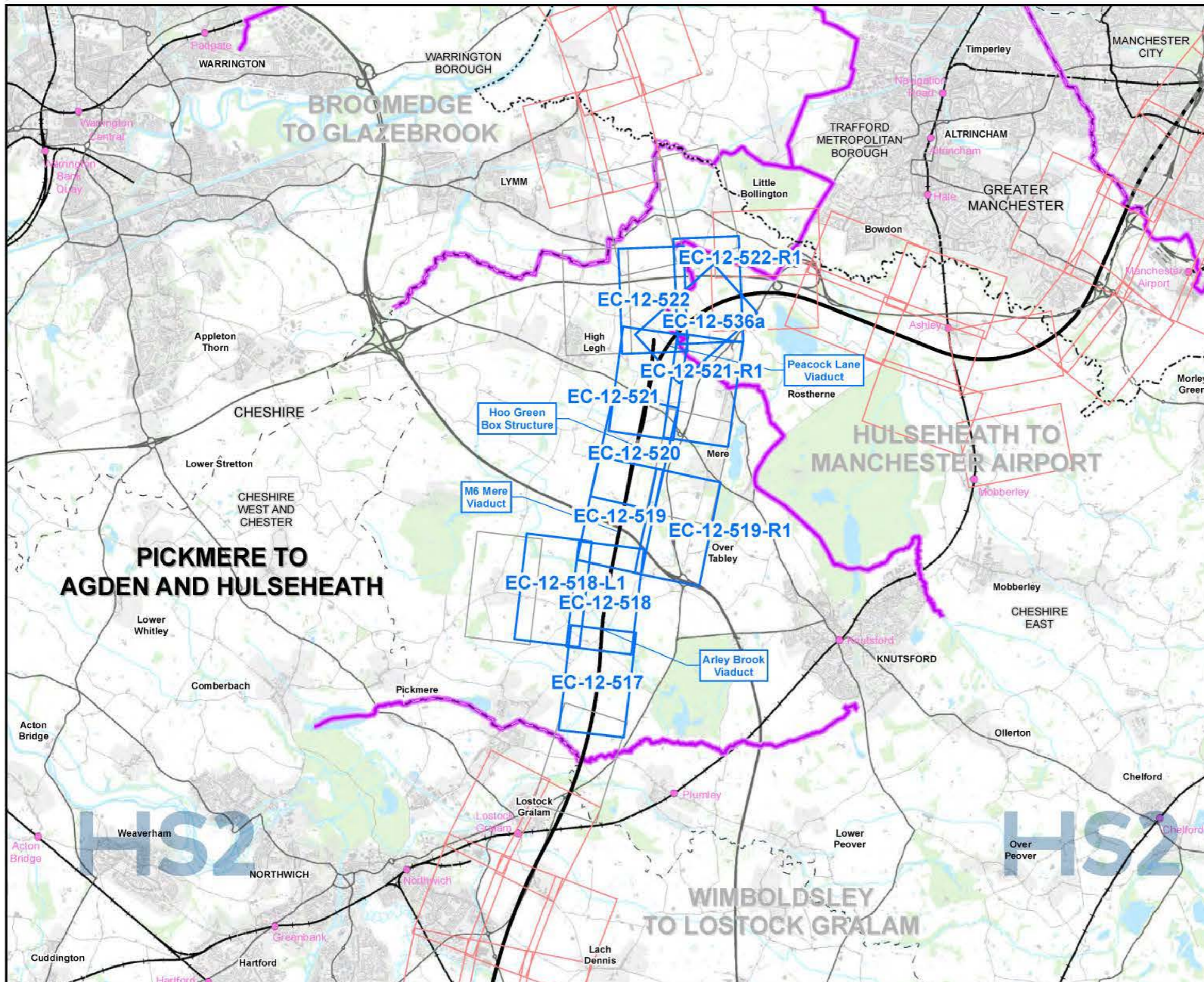
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Date: 20/04/22

Scale at A3: 1:5,000

For continuation, refer to map number EC-12-513





**Map Series Information:**  
 This map series shows the extent of various protected species surveys conducted to inform the Environmental Statement.

- 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 Area with no amendment
  - Map sheets not included in this community area

Map Number: EC-12-INDEX-MA03  
 Map Name: Index Map of:  
 Other Protected and Notable Species (2) SES1 and AP1 ES  
 Community Area MA03:  
 Pickmere to Agden and Hulseheath

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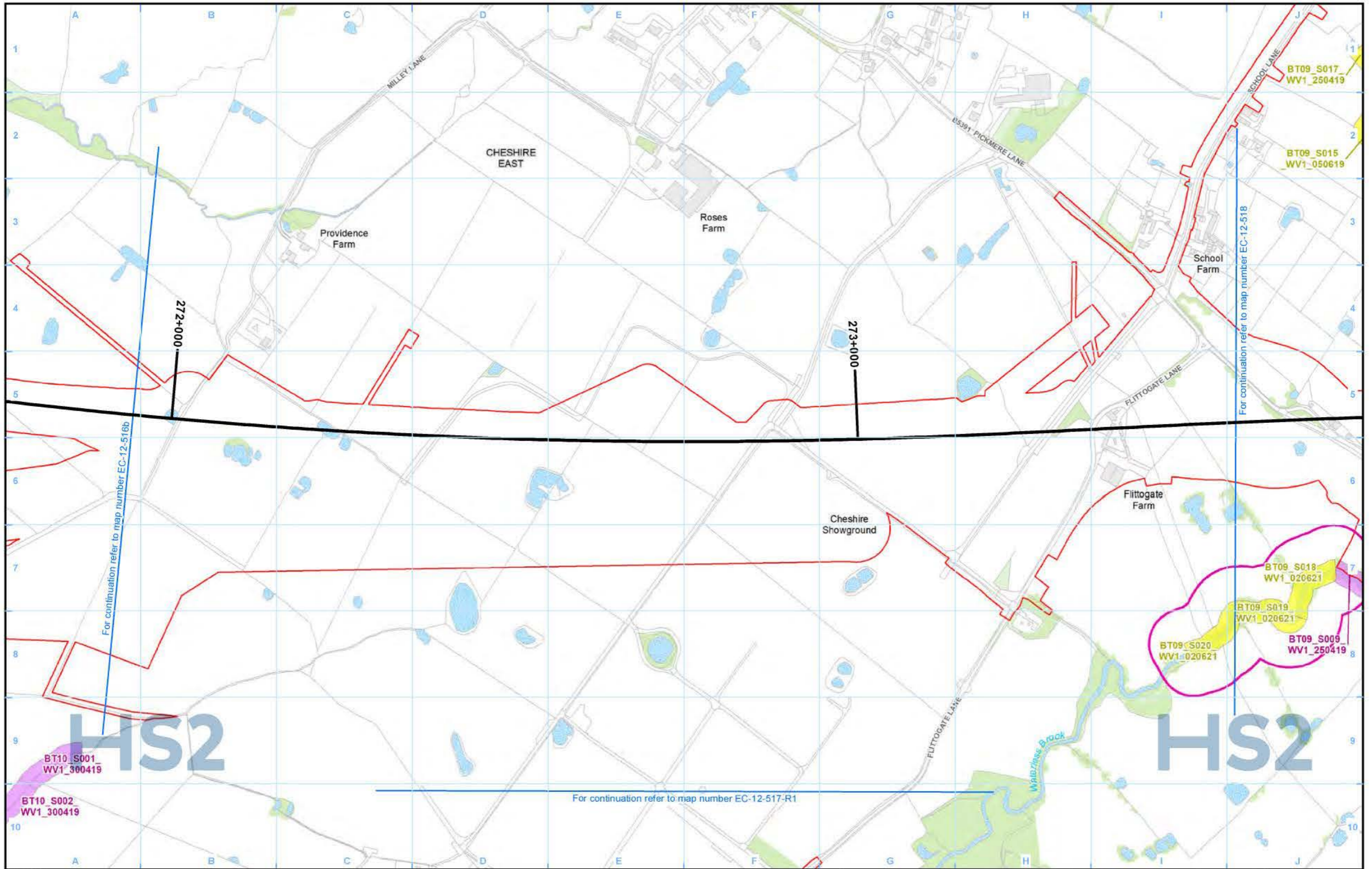
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Legend		
		<b>Water vole:</b>
	<b>Aquatic invertebrate:</b>	

Map Number	EC-12-517
Map Name	Other Protected and Notable Species (2) SES1 and AP1 ES
Community Area MA03: Pickmere to Agden and Hulseheath	

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Doc Number: 2PT24-MWJ-EV-MAP-M000-001530-P01

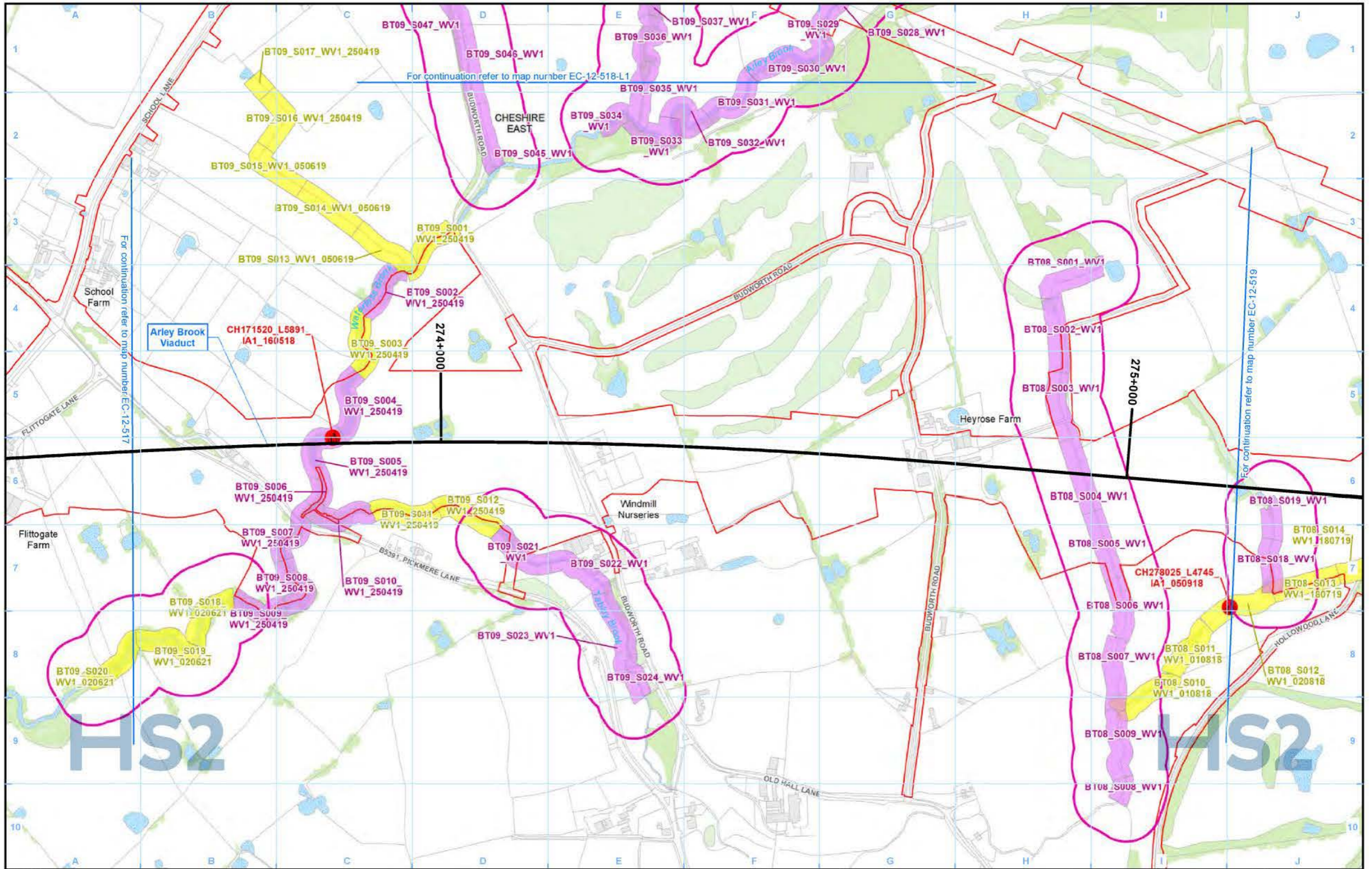
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Meters

Date: 20/04/22

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**Legend**

<ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> <li> District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li> Watercourse</li> <li> Water body</li> <li> Woodland (verified by survey)</li> <li> Area contains new survey data</li> <li><b>Aquatic invertebrate:</b></li> <li> Aquatic invertebrate survey location</li> </ul>	<ul style="list-style-type: none"> <li><b>Water vole:</b></li> <li> Water vole survey undertaken - presence confirmed</li> <li> Water vole survey undertaken - assumed absent</li> <li> Watercourse potentially suitable for water vole - no or limited access for survey</li> </ul>
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Map Number: EC-12-518

Map Name: Other Protected and Notable Species (2) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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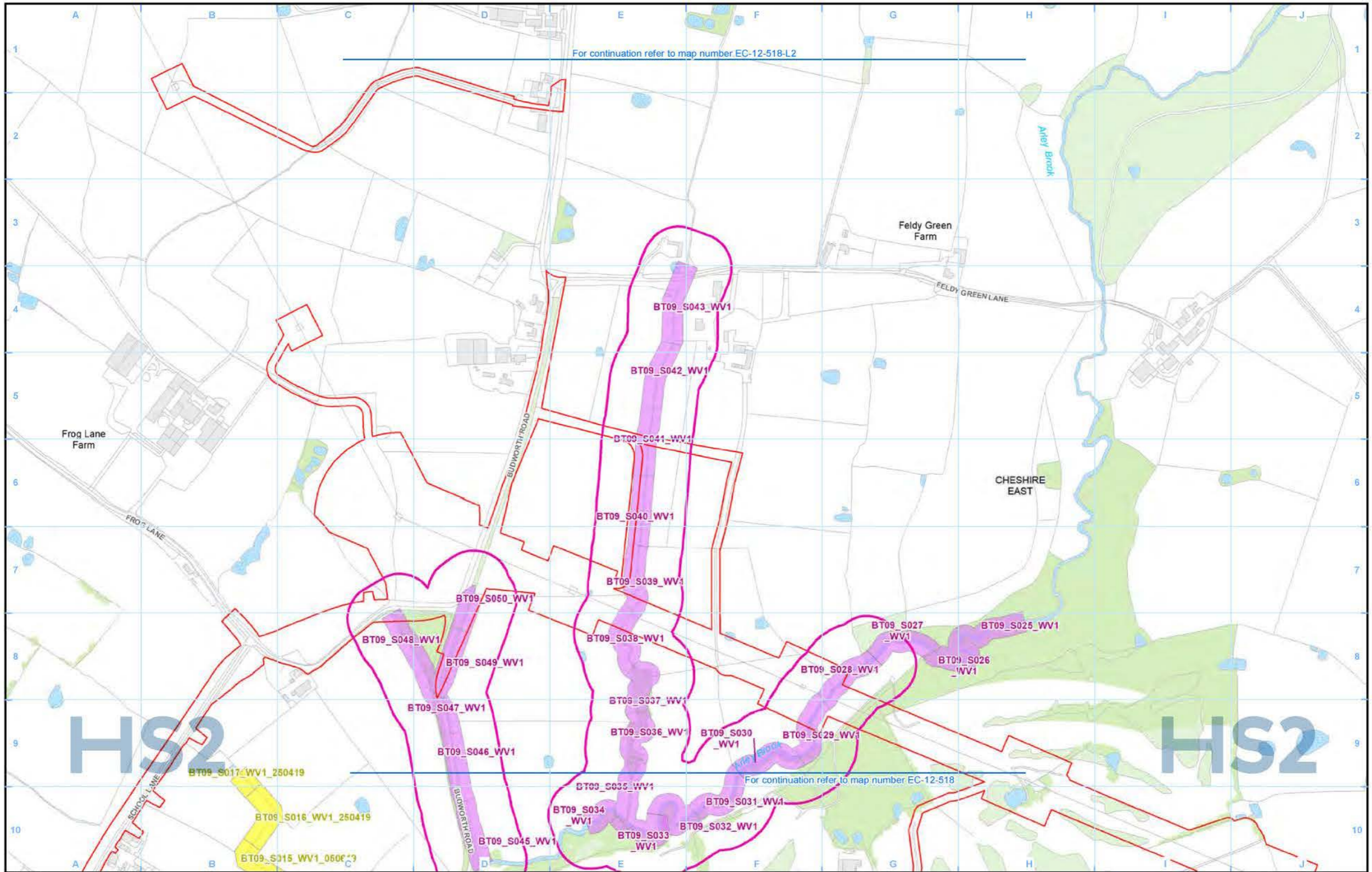
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Date: 20/04/22

Scale at A3: 1:5,000





**Legend**

<ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> <li> District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li> Watercourse</li> <li> Water body</li> <li> Woodland (verified by survey)</li> <li> Area contains new survey data</li> <li><b>Aquatic invertebrate:</b></li> <li> Aquatic invertebrate survey location</li> </ul>	<ul style="list-style-type: none"> <li><b>Water vole:</b></li> <li> Water vole survey undertaken - presence confirmed</li> <li> Water vole survey undertaken - assumed absent</li> <li> Watercourse potentially suitable for water vole - no or limited access for survey</li> </ul>
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Map Number: EC-12-518-L1

Map Name: Other Protected and Notable Species (2) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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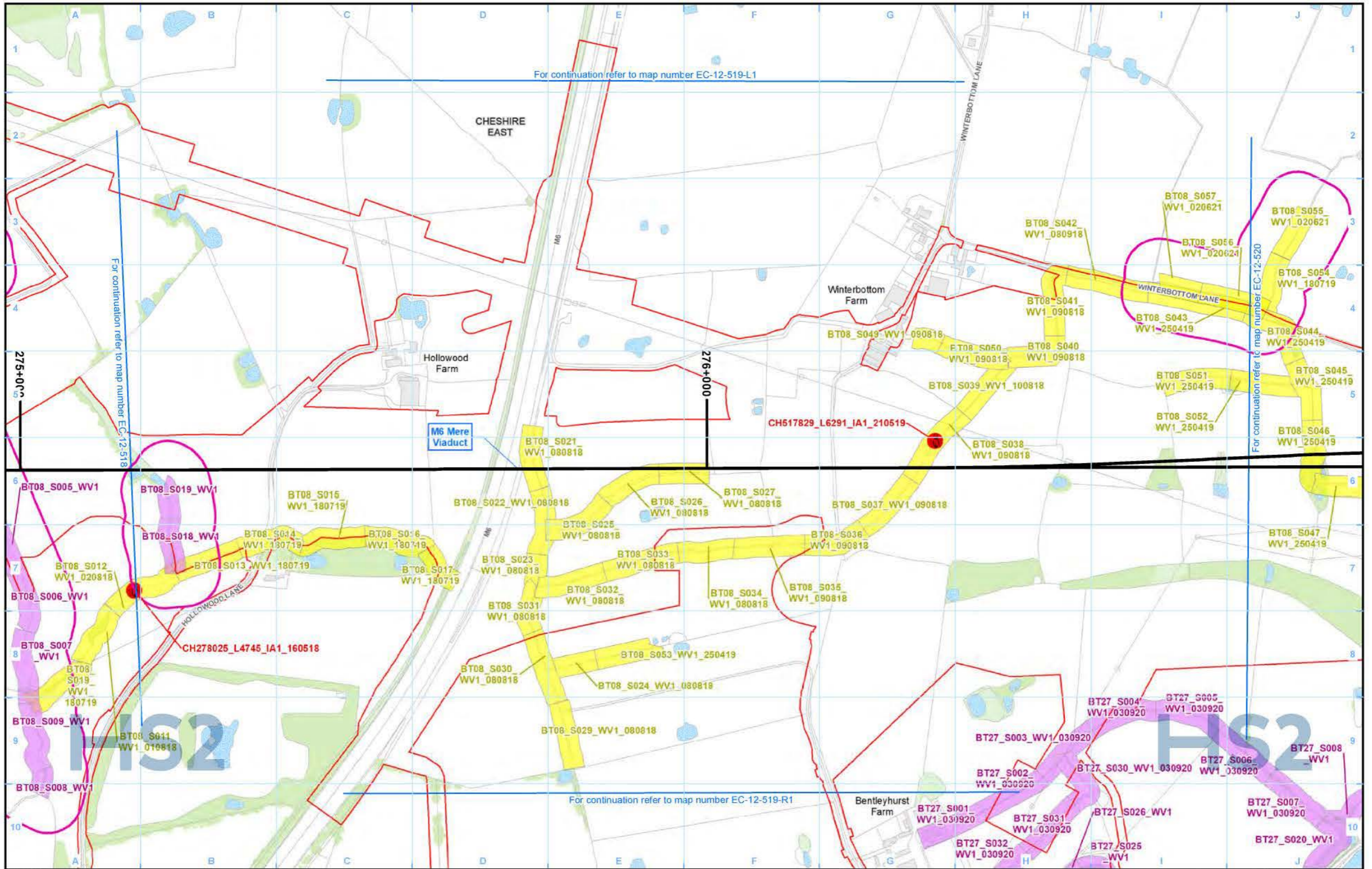
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Date: 20/04/22

Scale at A3: 1:5,000





**Legend**

<ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> <li> District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li> Watercourse</li> <li> Water body</li> <li> Woodland (verified by survey)</li> <li> Area contains new survey data</li> <li><b>Aquatic invertebrate:</b></li> <li> Aquatic invertebrate survey location</li> </ul>	<ul style="list-style-type: none"> <li><b>Water vole:</b></li> <li> Water vole survey undertaken - presence confirmed</li> <li> Water vole survey undertaken - assumed absent</li> <li> Watercourse potentially suitable for water vole - no or limited access for survey</li> </ul>
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Map Number: EC-12-519

Map Name: Other Protected and Notable Species (2) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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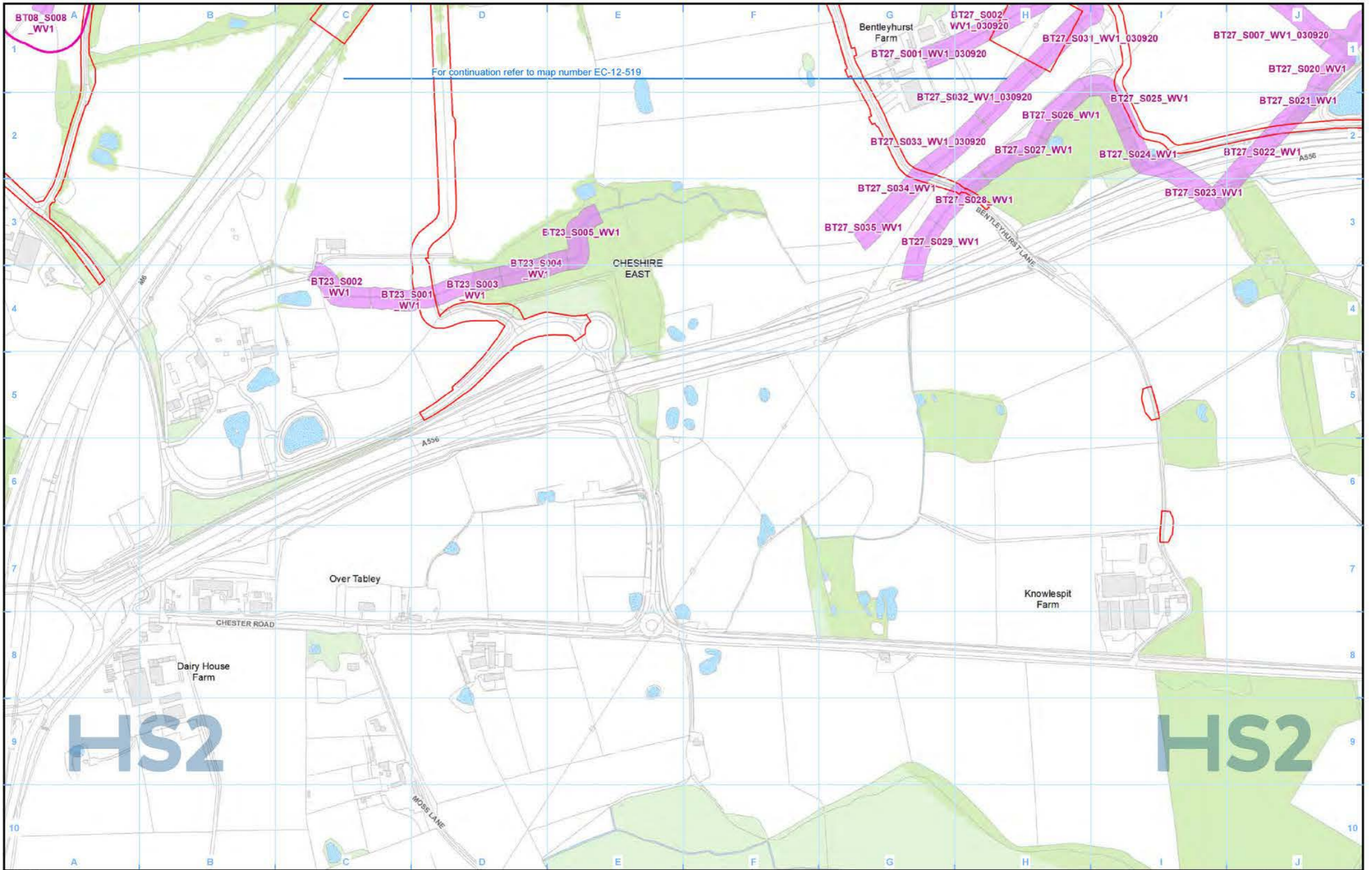
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Scale bar: 0, 50, 100, 150, 200 Metres

North arrow

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Legend		
		<b>Water vole:</b>
	<b>Aquatic invertebrate:</b>	

Map Number	EC-12-519-R1
Map Name	Other Protected and Notable Species (2) SES1 and AP1 ES
Community Area MA03: Pickmere to Agden and Hulseheath	

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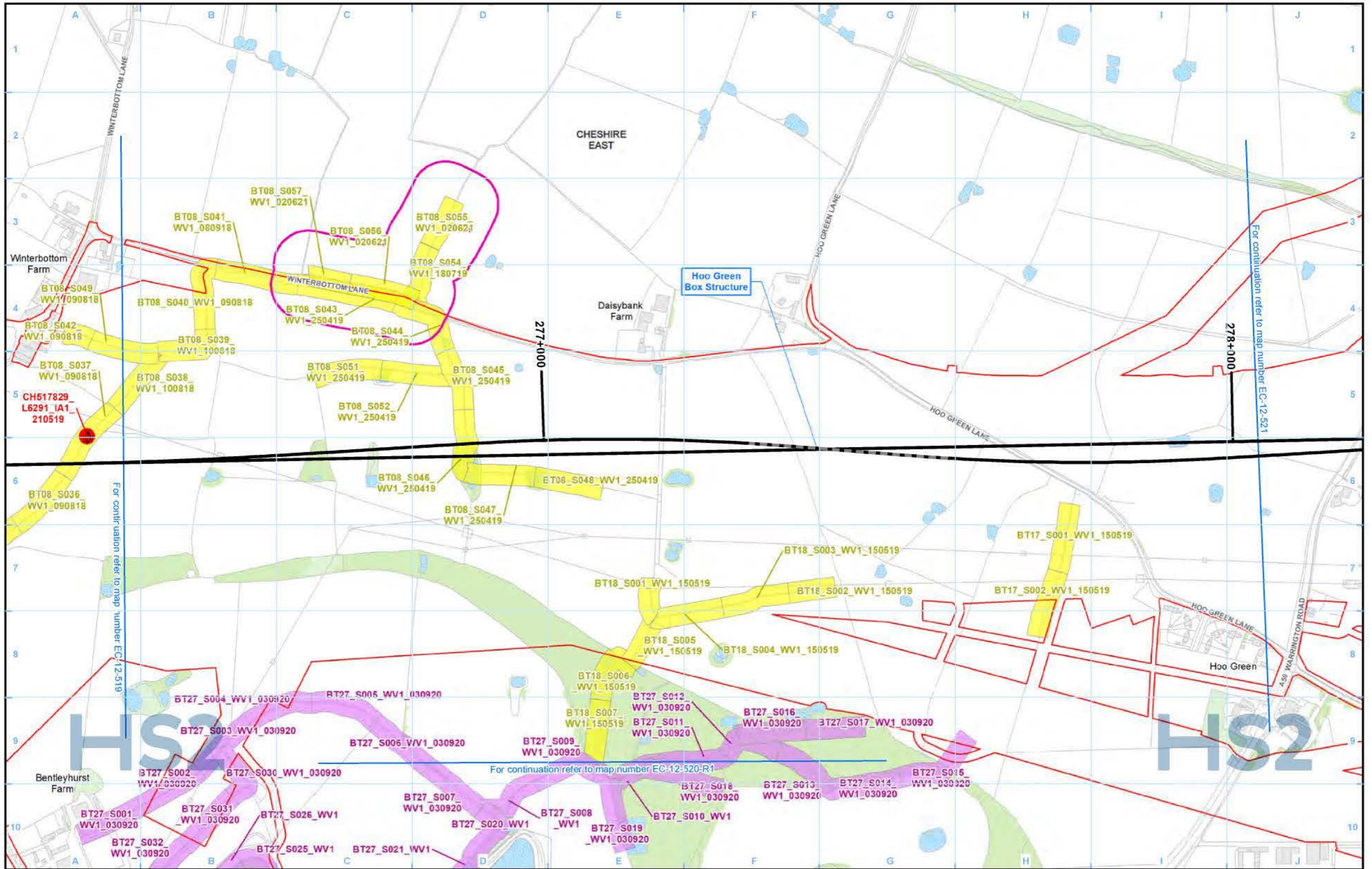
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**Legend**

<ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> <li> District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li> Watercourse</li> <li> Water body</li> <li> Woodland (verified by survey)</li> <li> Area contains new survey data</li> <li> Aquatic invertebrate survey location</li> </ul>	<p><b>Water vole:</b></p> <ul style="list-style-type: none"> <li> Water vole survey undertaken - presence confirmed</li> <li> Water vole survey undertaken - assumed absent</li> <li> Watercourse potentially suitable for water vole - no or limited access for survey</li> </ul>
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Map Number: EC-12-520

Map Name: Other Protected and Notable Species (2) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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Date: 20/04/22

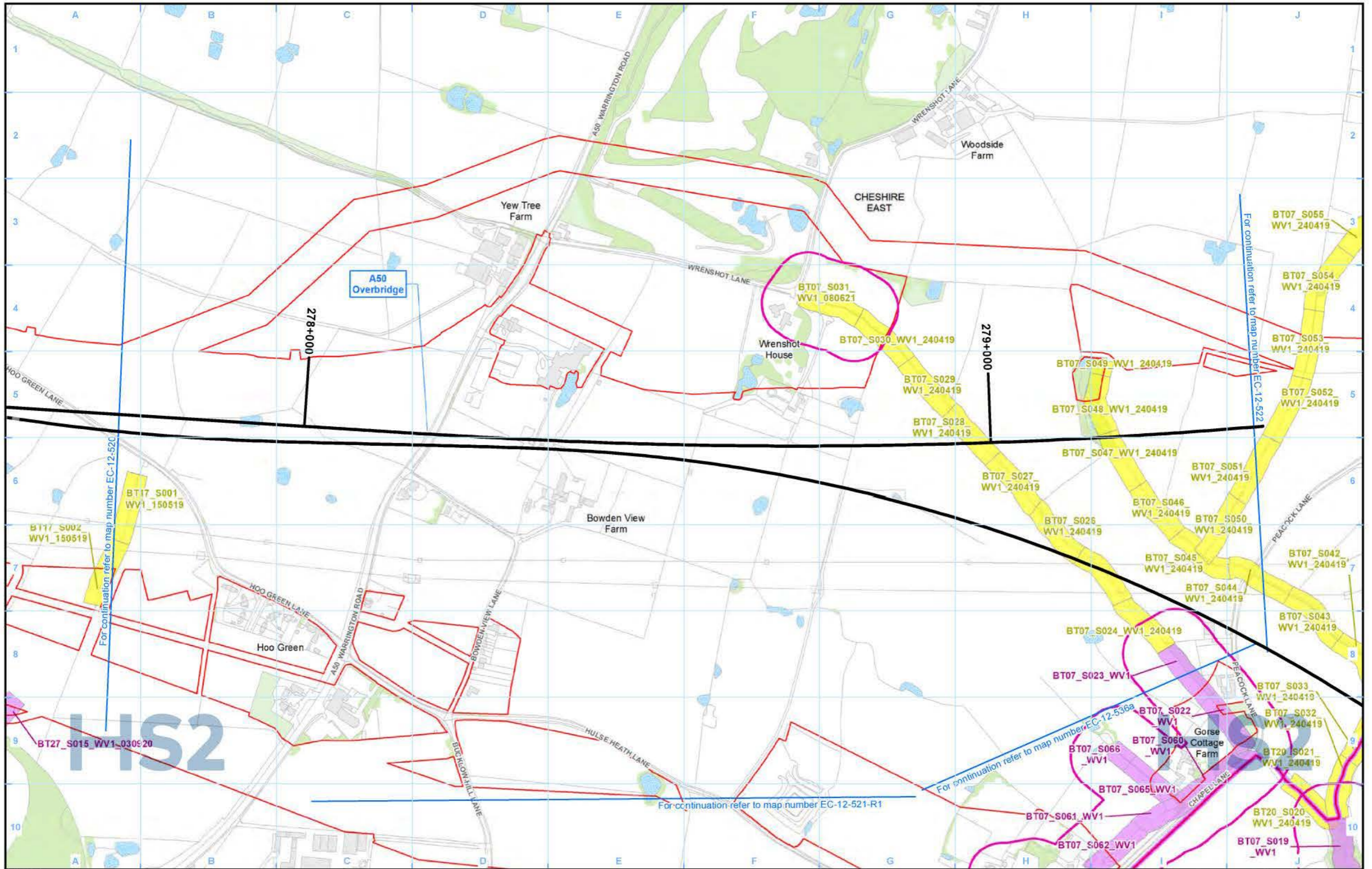
Scale at A3: 1:5,000

For continuation refer to map number EC-12-521

For continuation refer to map number EC-12-519

For continuation refer to map number EC-12-520-R1





**Legend**

<ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> <li> District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li> Watercourse</li> <li> Water body</li> <li> Woodland (verified by survey)</li> <li> Area contains new survey data</li> <li><b>Aquatic invertebrate:</b></li> <li> Aquatic invertebrate survey location</li> </ul>	<ul style="list-style-type: none"> <li><b>Water vole:</b></li> <li> Water vole survey undertaken - presence confirmed</li> <li> Water vole survey undertaken - assumed absent</li> <li> Watercourse potentially suitable for water vole - no or limited access for survey</li> </ul>
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Map Number: EC-12-521

Map Name: Other Protected and Notable Species (2) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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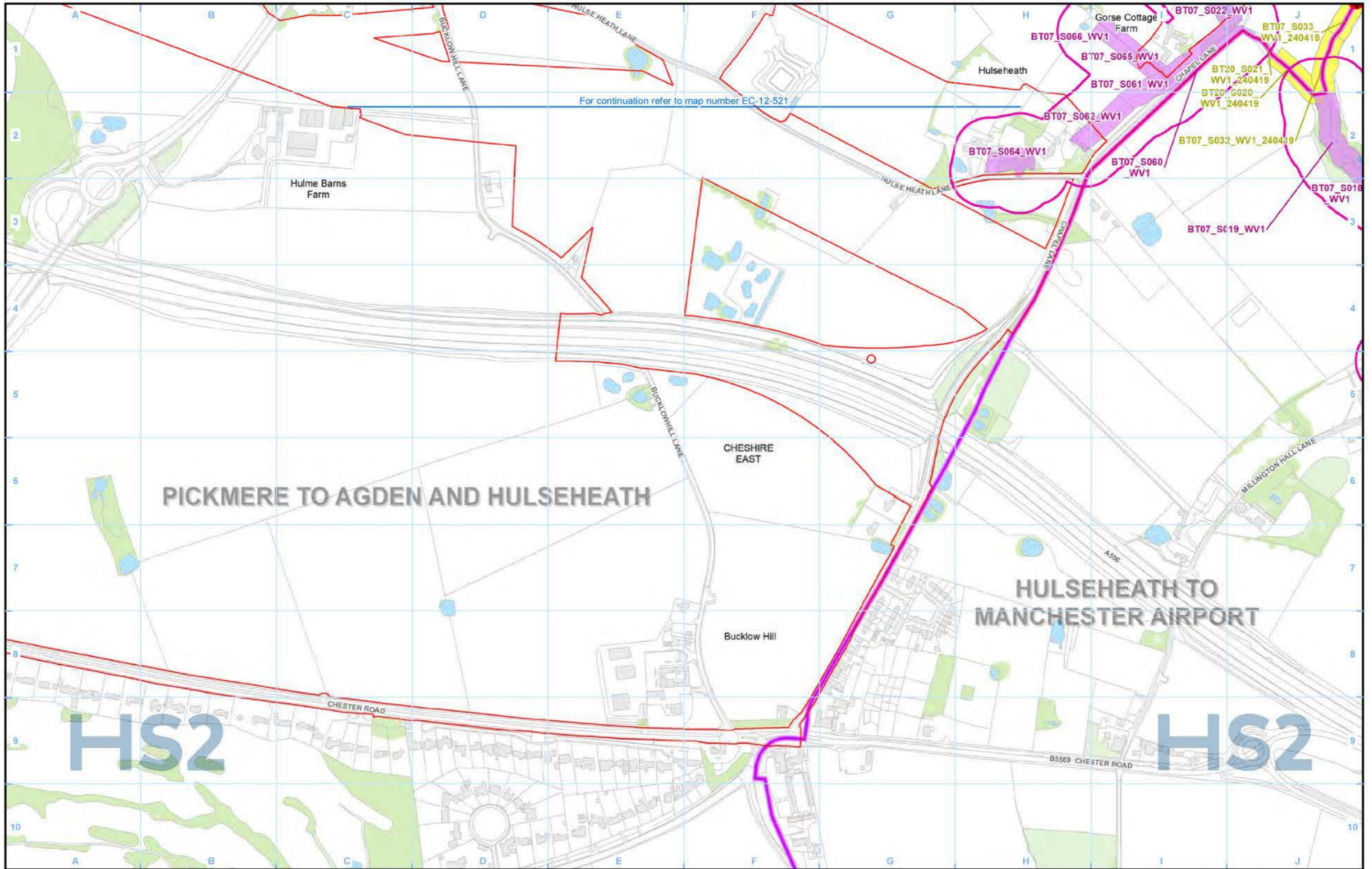
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For continuation refer to map number EC-12-521

PICKMERE TO AGDEN AND HULSEHEATH

HULSEHEATH TO MANCHESTER AIRPORT

HS2

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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
- Water body
- Woodland (verified by survey)
- Area contains new survey data
- Aquatic invertebrate:
- Aquatic invertebrate survey location

- Water vole:**
- Water vole survey undertaken - presence confirmed
  - Water vole survey undertaken - assumed absent
  - Watercourse potentially suitable for water vole - no or limited access for survey

Map Number: EC-12-521-R1

Map Name: Other Protected and Notable Species (2) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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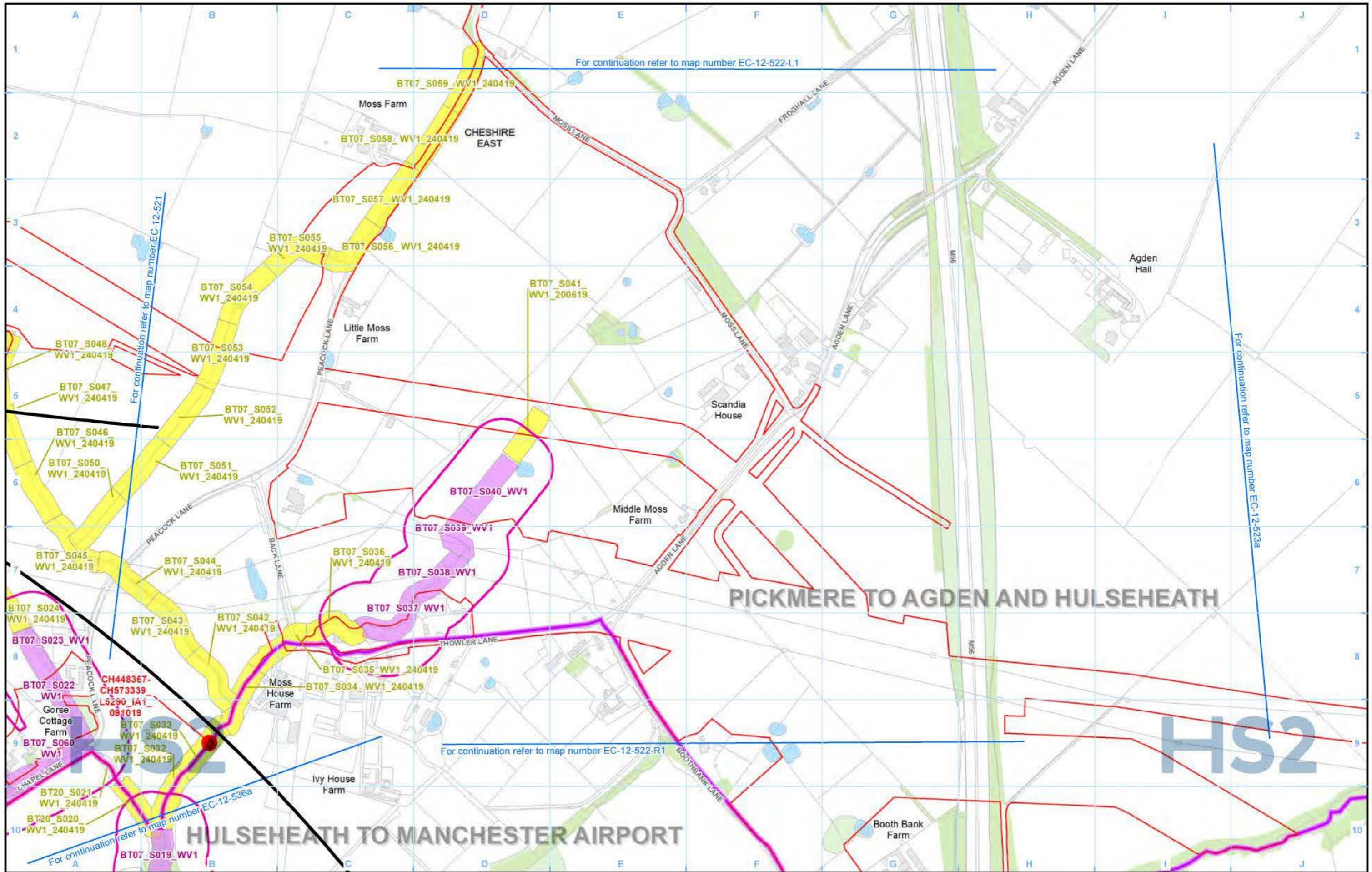
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Date: 20/04/22

Scale at A3: 1:5,000

0 50 100 150 200 Metres





**Legend**

<ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> <li> District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li> Watercourse</li> <li> Water body</li> <li> Woodland (verified by survey)</li> <li> Area contains new survey data</li> <li><b>Aquatic invertebrate:</b></li> <li> Aquatic invertebrate survey location</li> </ul>	<ul style="list-style-type: none"> <li><b>Water vole:</b></li> <li> Water vole survey undertaken - presence confirmed</li> <li> Water vole survey undertaken - assumed absent</li> <li> Watercourse potentially suitable for water vole - no or limited access for survey</li> </ul>
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Map Number: EC-12-522

Map Name: Other Protected and Notable Species (2) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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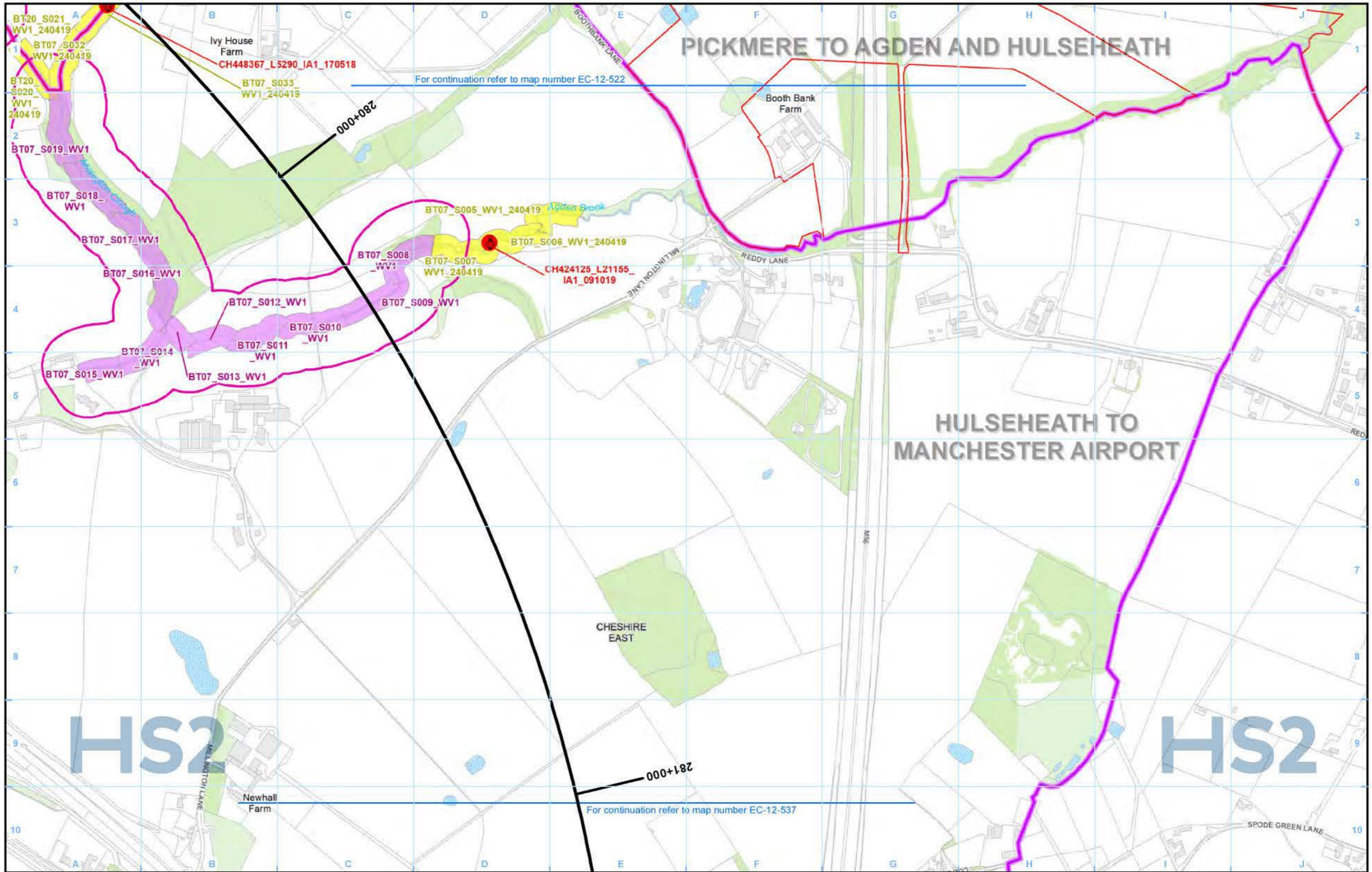
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Date: 20/04/22





**Legend**

<ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> <li> District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li> Watercourse</li> <li> Water body</li> <li> Woodland (verified by survey)</li> <li> Area contains new survey data</li> <li><b>Aquatic invertebrate:</b></li> <li> Aquatic invertebrate survey location</li> </ul>	<ul style="list-style-type: none"> <li><b>Water vole:</b></li> <li> Water vole survey undertaken - presence confirmed</li> <li> Water vole survey undertaken - assumed absent</li> <li> Watercourse potentially suitable for water vole - no or limited access for survey</li> </ul>
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Map Number: EC-12-522-R1

Map Name: Other Protected and Notable Species (2) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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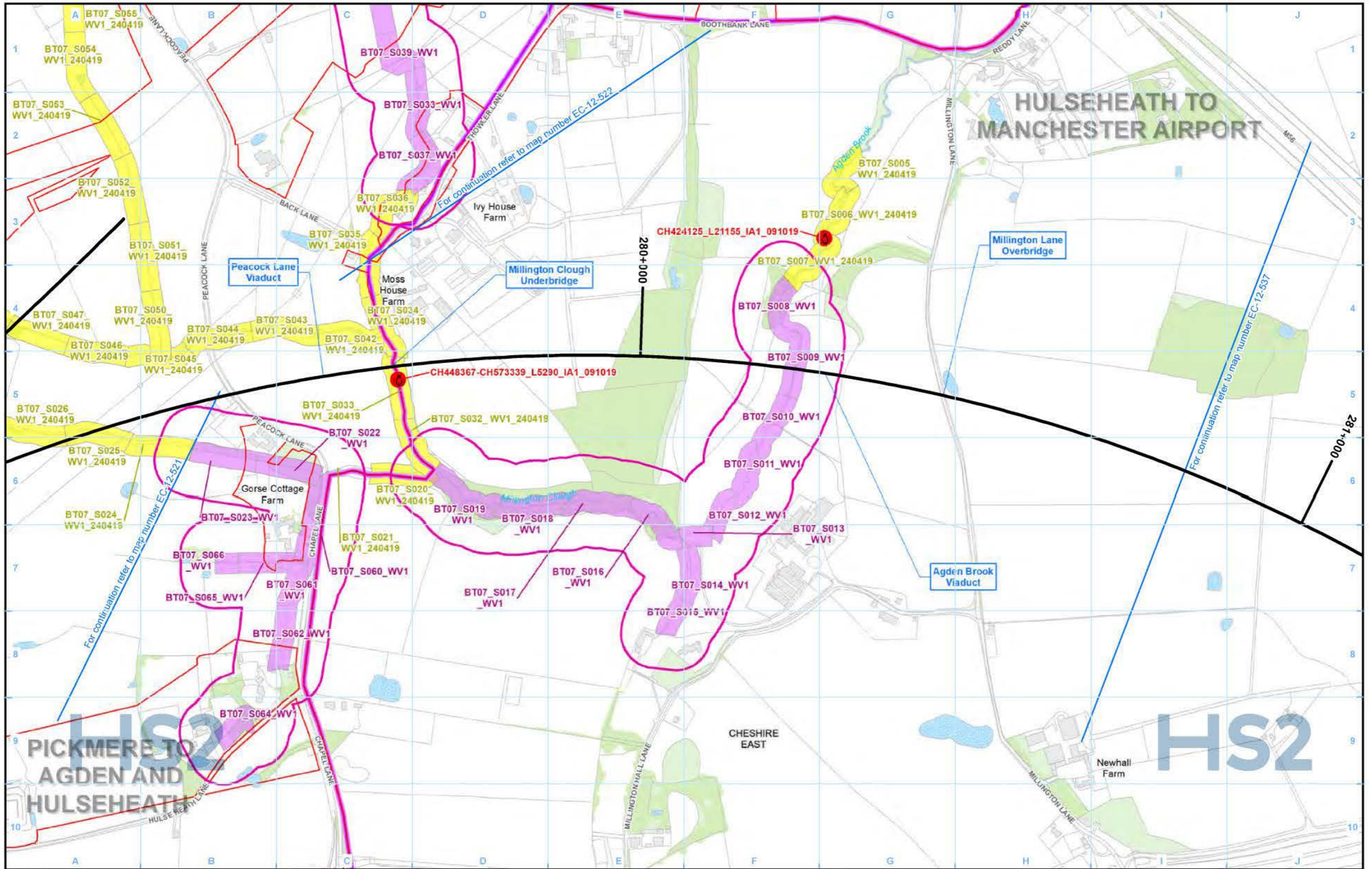
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**Legend**

<ul style="list-style-type: none"> <li> Route in tunnel</li> <li> Route on surface</li> <li> Depot, station, headhouse or portal building</li> <li> Land potentially required during construction</li> <li> Community area boundary</li> <li> County boundary</li> <li> District/Borough boundary</li> </ul>	<ul style="list-style-type: none"> <li> Watercourse</li> <li> Water body</li> <li> Woodland (verified by survey)</li> <li> Area contains new survey data</li> <li><b>Aquatic invertebrate:</b></li> <li> Aquatic invertebrate survey location</li> </ul>	<ul style="list-style-type: none"> <li><b>Water vole:</b></li> <li> Water vole survey undertaken - presence confirmed</li> <li> Water vole survey undertaken - assumed absent</li> <li> Watercourse potentially suitable for water vole - no or limited access for survey</li> </ul>
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Map Number: EC-12-536a

Map Name: Other Protected and Notable Species (2) SES1 and AP1 ES

Community Area MA03: Pickmere to Agden and Hulseheath

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Meters



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