

High Speed Two Phase 2a (West Midlands - Crewe)

Background Information and Data

Map book

Ecology (EC-02, EC-04, EC-05, EC-06, EC-07, EC-08, EC-09, EC-10, EC-11, EC-12) Part 3



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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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Map series name	Map series description	Map book part
EC-02 - Phase 1 Habitat (1:10,000)	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 or the area mapped is between 250-500m from the boundary of the land potentially required during construction, the information is based on available desk study and interpretation of aerial photography.	Background Information and Data map book — Ecology Part 1
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 conducted. In addition it shows the location of those 'exceptional' populations of common amphibians recorded.	Background Information and Data map book – Ecology Part 1
EC-05 - Bat - Roost	This map series shows results of field surveys conducted to investigate the potential for trees and buildings/structures to support roosting bats. It shows the location of roosts confirmed by field survey and features identified as having a high or moderate potential to support roosting bats.	Background Information and Data map book — Ecology Part 1
EC-o6 - 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 on the basis of the survey work conducted.	Background Information and Data map book — Ecology Part 1
EC-07 - Reptiles	This map series shows the extent and results of survey work for common reptiles that has been undertaken to inform the Environmental Statement.	Background Information and Data map book — Ecology Part 2
EC-o8 - Breeding Birds - Protected and Notable Species	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.	Background Information and Data map book — Ecology Part 2
EC-og - Wintering and Passage Birds – Protected and Notable Species	This map series shows records of selected protected/notable wintering birds that are considered most relevant in considering the impacts of the Proposed Scheme.	Background Information and Data map book – Ecology Part 2
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).	Background Information and Data map book – Ecology Part 3
EC-11 - Other Protected and Notable Species (1)	This map series shows the extent of protected species surveys conducted to inform the Environmental Statement.	Background Information and Data map book – Ecology Part 3
EC-12 - Other Protected and Notable Species (2)	This map series shows the extent of protected species surveys conducted to inform the Environmental Statement.	Background Information and Data map book – Ecology Part 3

Mapping explanatory notes

This map book is part of the background information and data (BID) for Phase 2a of the proposed High Speed Two (HS2) rail network between the West Midlands and Crewe (the Proposed Scheme), and comprises ecological baseline data. This map book does not form part of the Environmental Statement, 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 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

The maps presented have a chainage value shown next to the alignment. Chainage is presented on the maps in black font, in the form of XX+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 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 different amounts of alignment on the map.

Map orientation

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

High Speed Two Phase 2a (West Midlands-Crewe)
Background Information and Data
Data dictionary and definitions

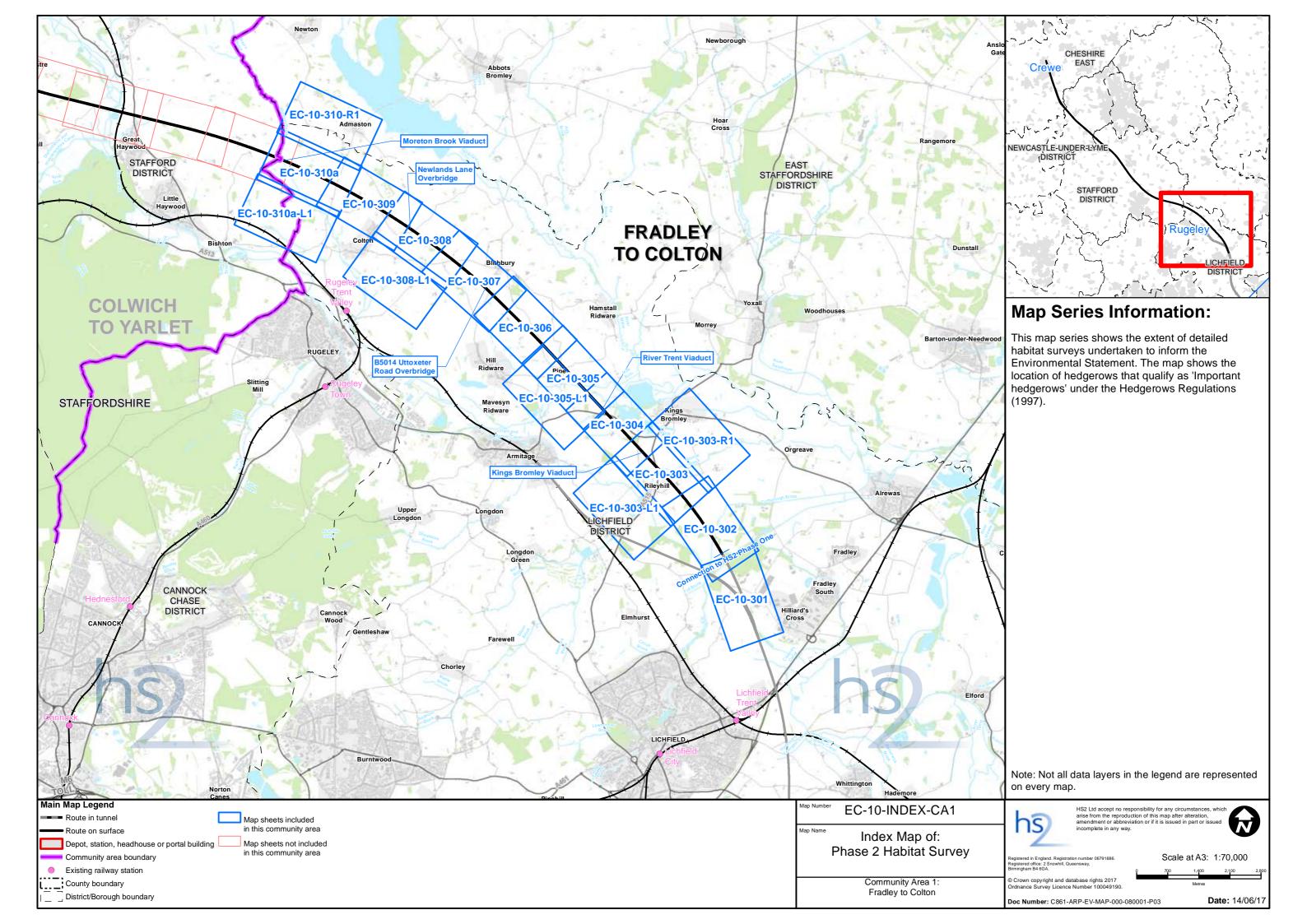
Data dictionary and definitions

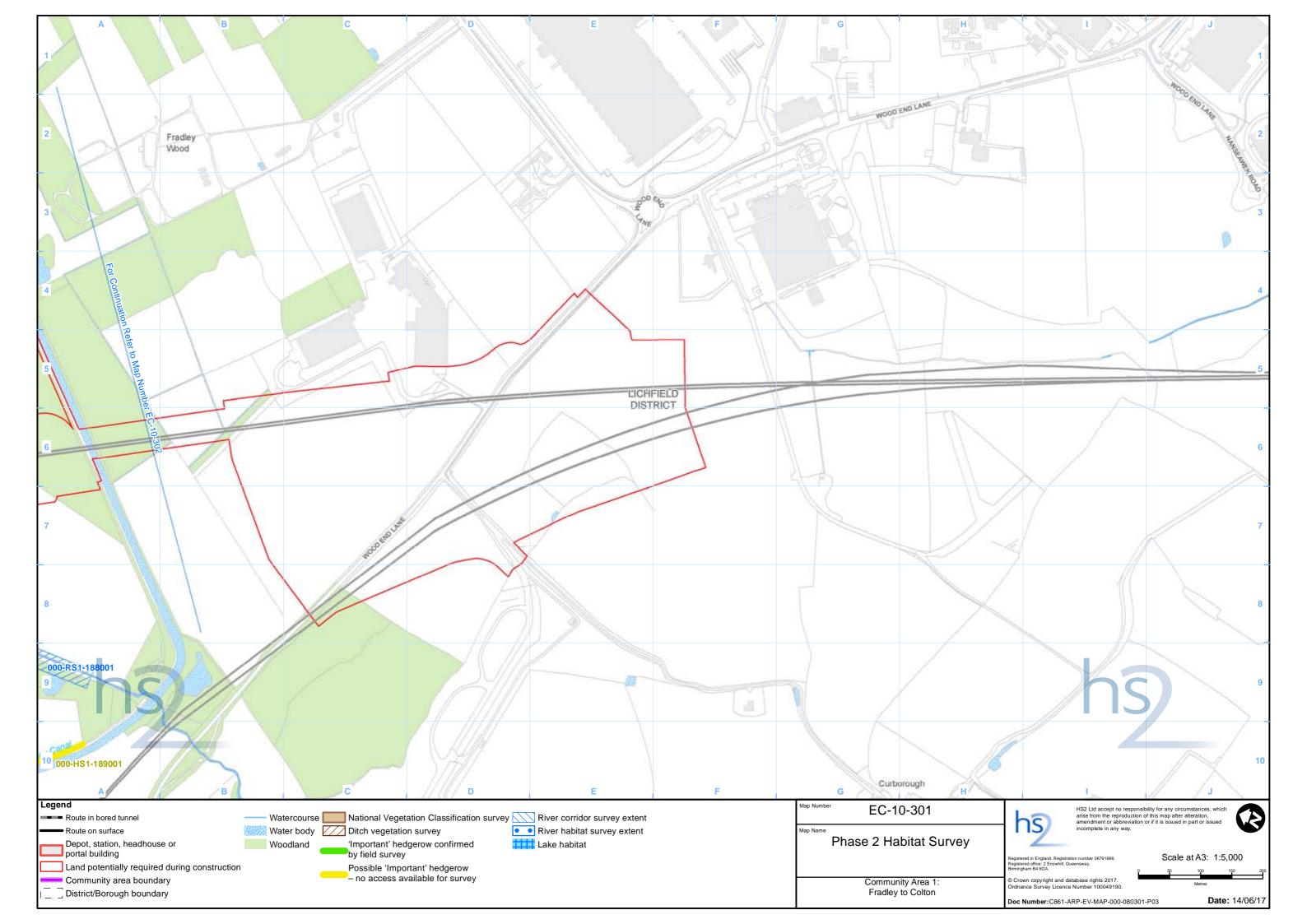
Legend features	Definition	Source	Copyright
Aquatic invertebrate: Aquatic invertebrate survey location	Location of aquatic invertebrate survey.	High Speed Two (HS2) Ltd	
Community area boundary	The Proposed Scheme has been split into 5 sections called Community Areas.	High Speed Two (HS2) Ltd	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2017.
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 2017.
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 2017.
Ditch vegetation survey	Extent of Ditch vegetation surveys.	High Speed Two (HS2) Ltd	
Dormouse: Nest tube survey and/or nut search conducted and presence confirmed Nest tube survey and/or nut search conducted and no signs of dormouse identified Site identified as potentially suitable for dormouse but no access available	Extent of Dormouse survey using nest tube and/or nut search. Those areas where access was available either had confirmed presence or no signs were found.	High Speed Two (HS2) Ltd	
Fish: Fish survey location	Location where fish survey was conducted.	High Speed Two (HS2) Ltd	
'Important' hedgerow confirmed by field survey Possible '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	
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	
Otter: Active otter holt Potential otter holt	Location of active otter holts and potential otter holts found during field survey.	High Speed Two (HS2) Ltd	
Otter terrestrial habitat	Areas of terrestrial habitat within 100m of the Proposed Scheme that are identified as having 'high' potential to act as otter breeding sites (i.e. those ranked as having a score of 5 on the scale devised by Chanin).	High Speed Two (HS2) Ltd	
Pond survey: Pond survey – national pond survey Pond survey – PSYM Pond survey – rapid assessment method	Location and type of pond surveys conducted.	High Speed Two (HS2) Ltd	

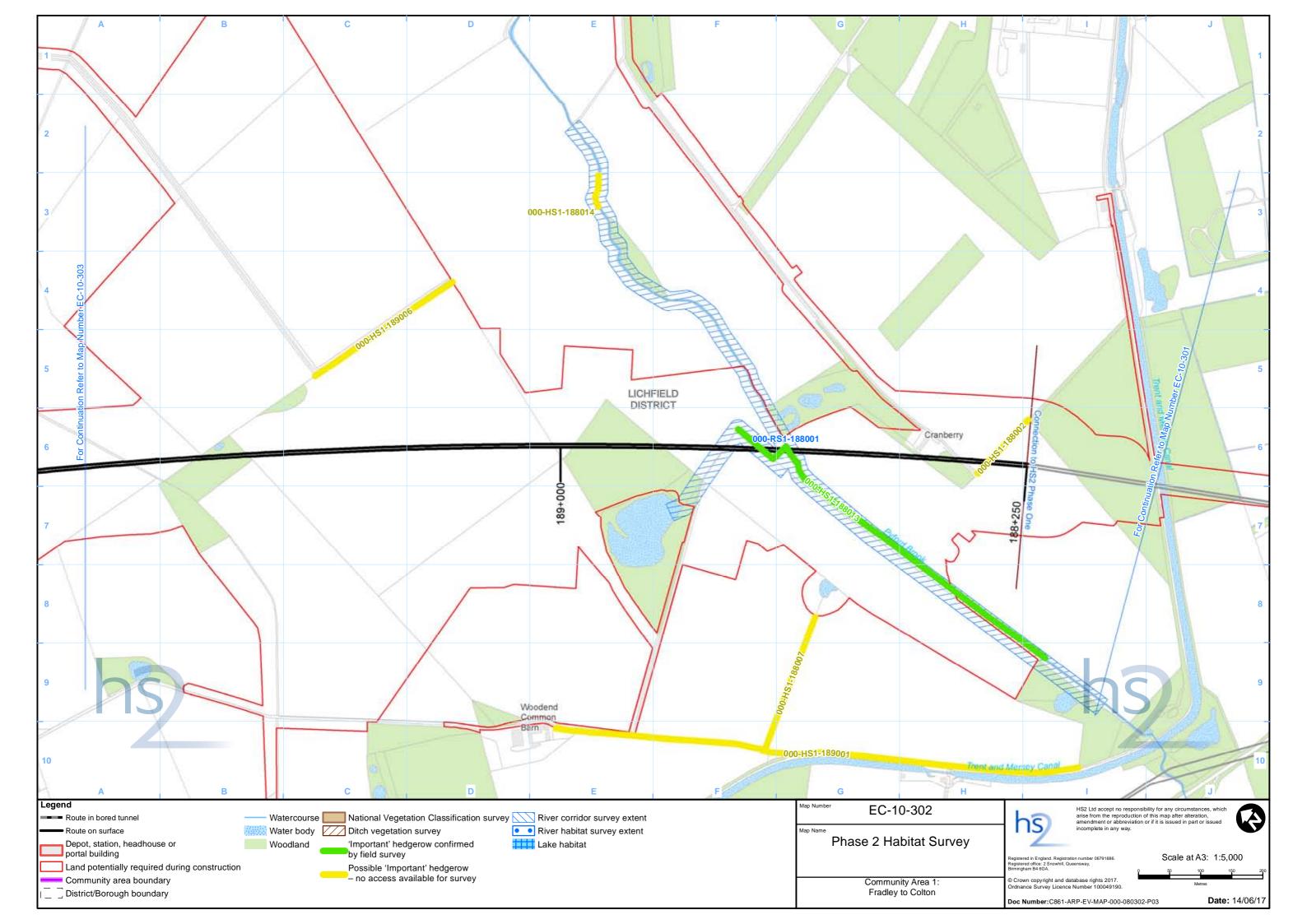
Legend features	Definition	Source	Copyright
River corridor survey extent	Extent of river corridor surveys.	High Speed Two (HS2) Ltd	
River habitat survey extent	Extent of river habitat surveys.	High Speed Two (HS2) Ltd	
Route in tunnel Route on surface	Represents the proposed route of HS2, split into route on surface and tunnelled sections.	High Speed Two (HS2) Ltd	
Terrestrial invertebrate: Terrestrial invertebrate survey extent	Extent of terrestrial invertebrate survey.	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 2017.
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	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	
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.	Environment Agency	© Environment Agency copyright and/or database right 2017. All rights reserved.
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	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 (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 2017.

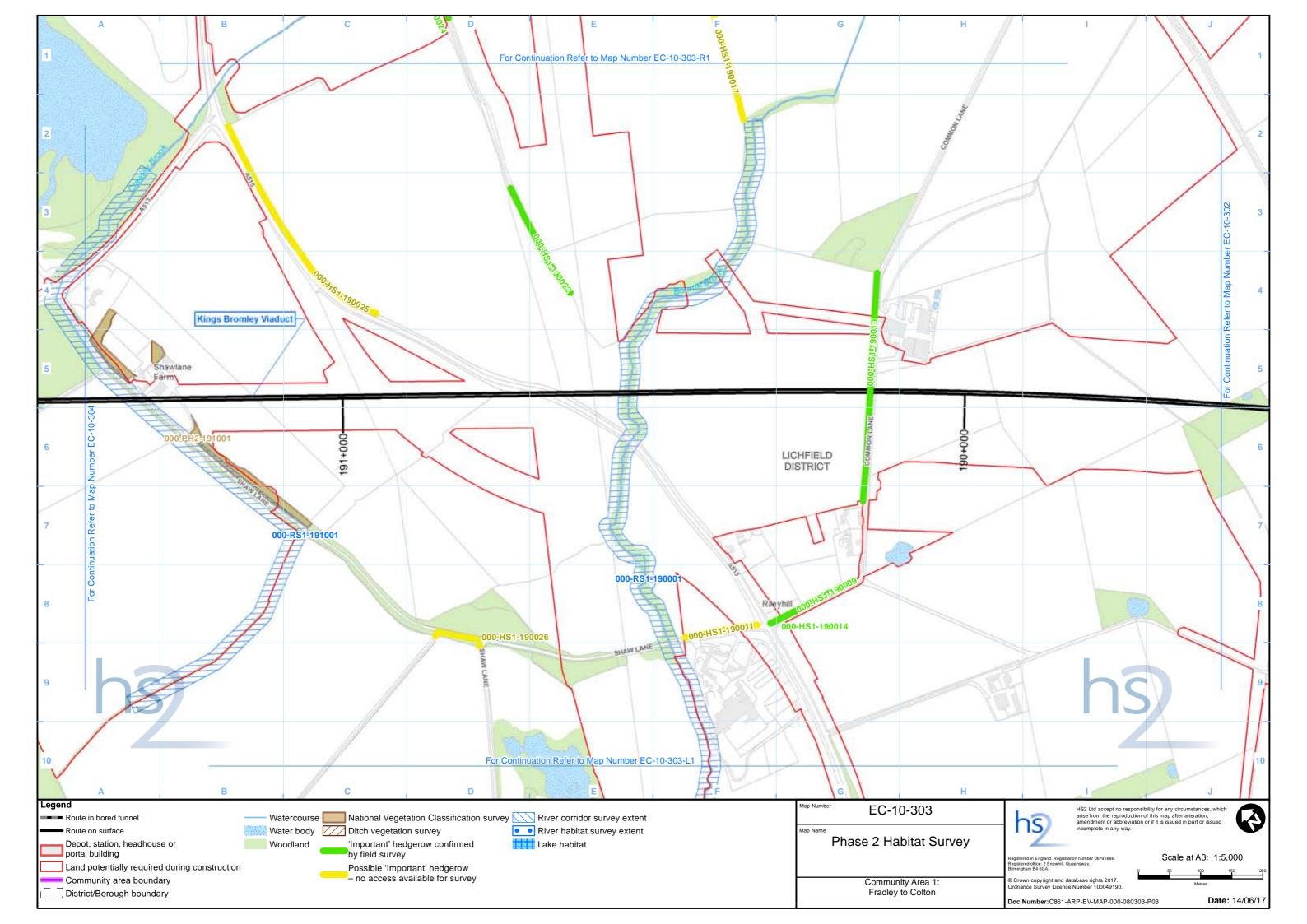
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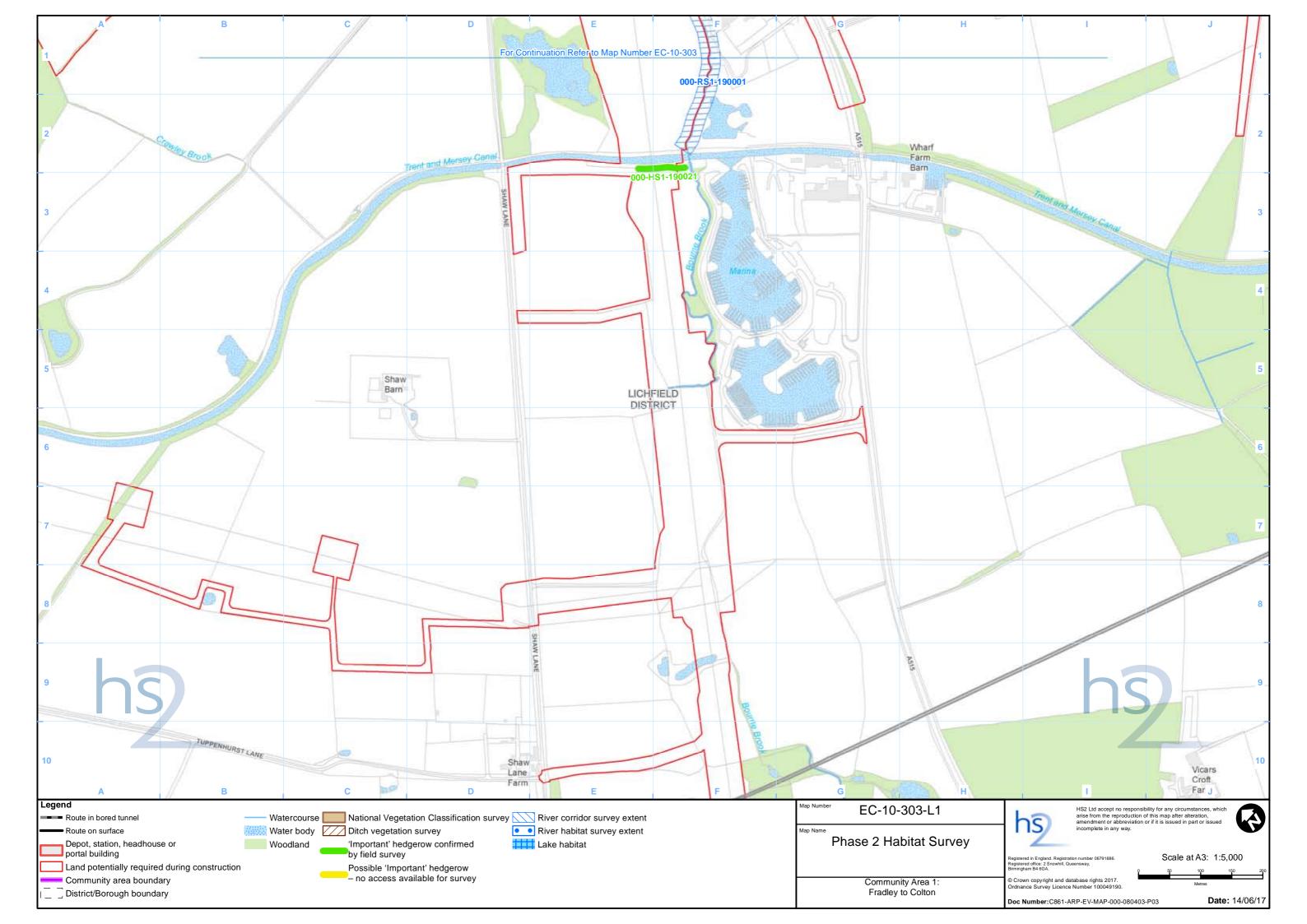
High Speed Two Phase 2a (West Midlands-Crewe)
Background Information and Data
EC-10 - Phase 2 Habitat Survey

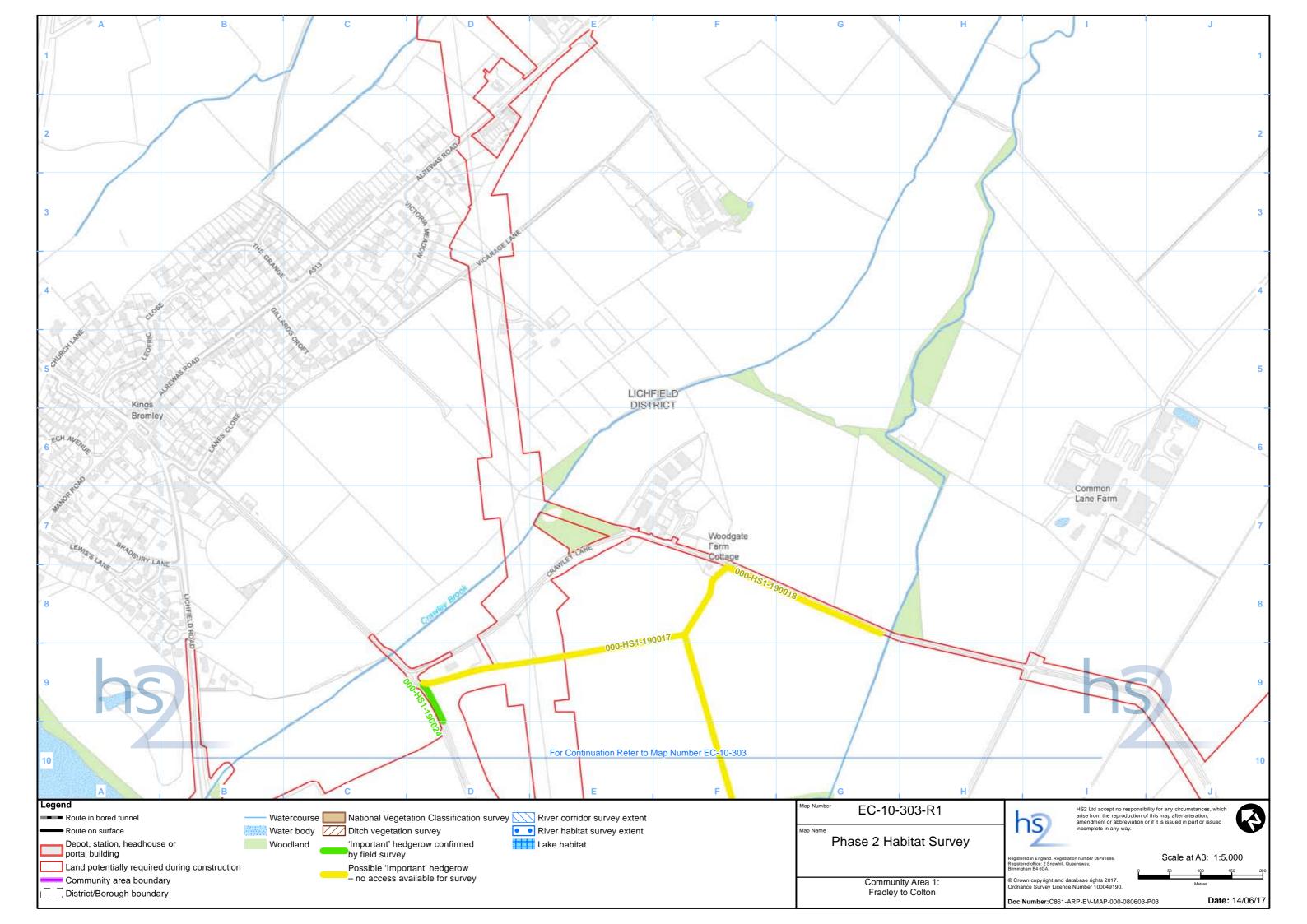


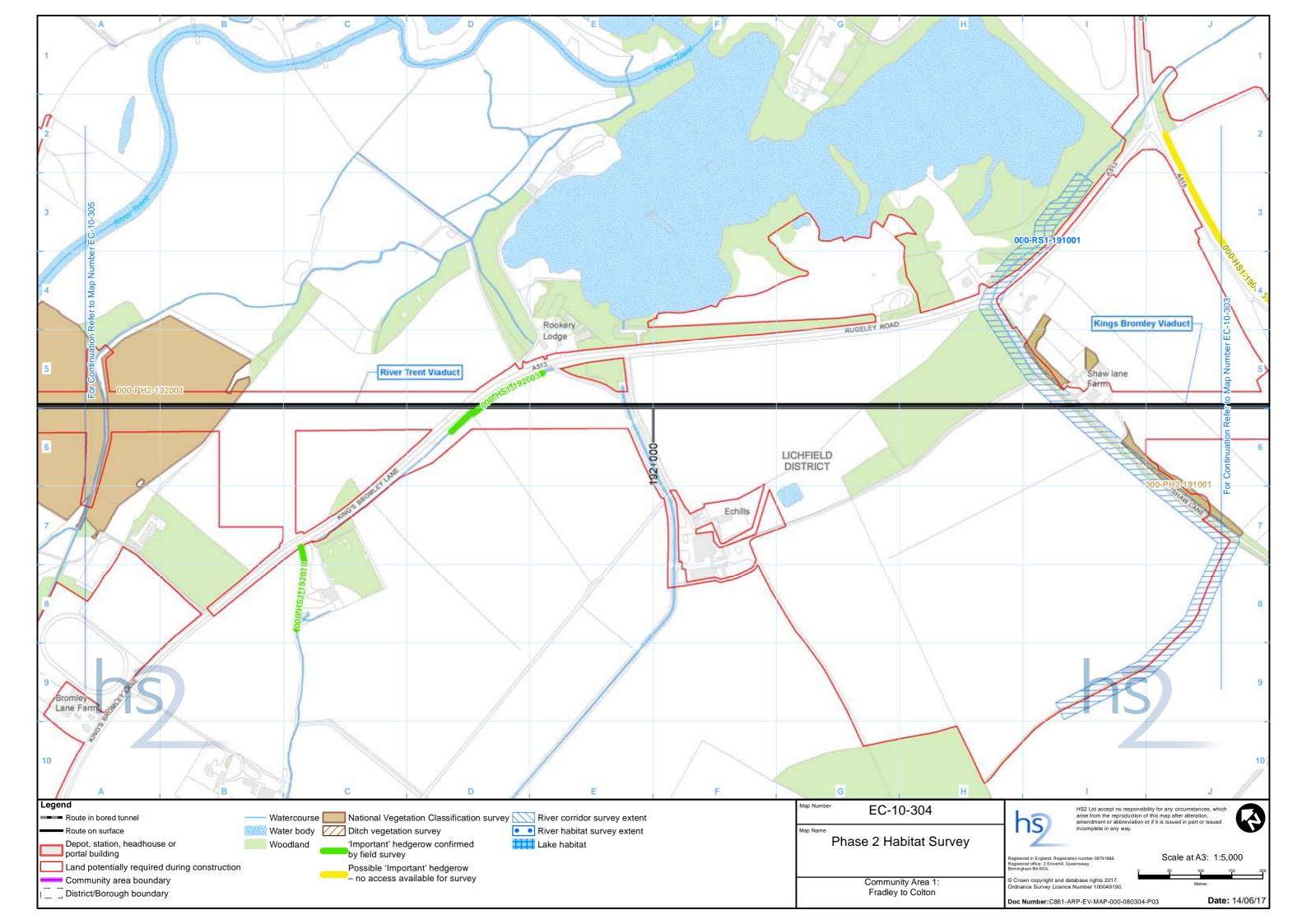


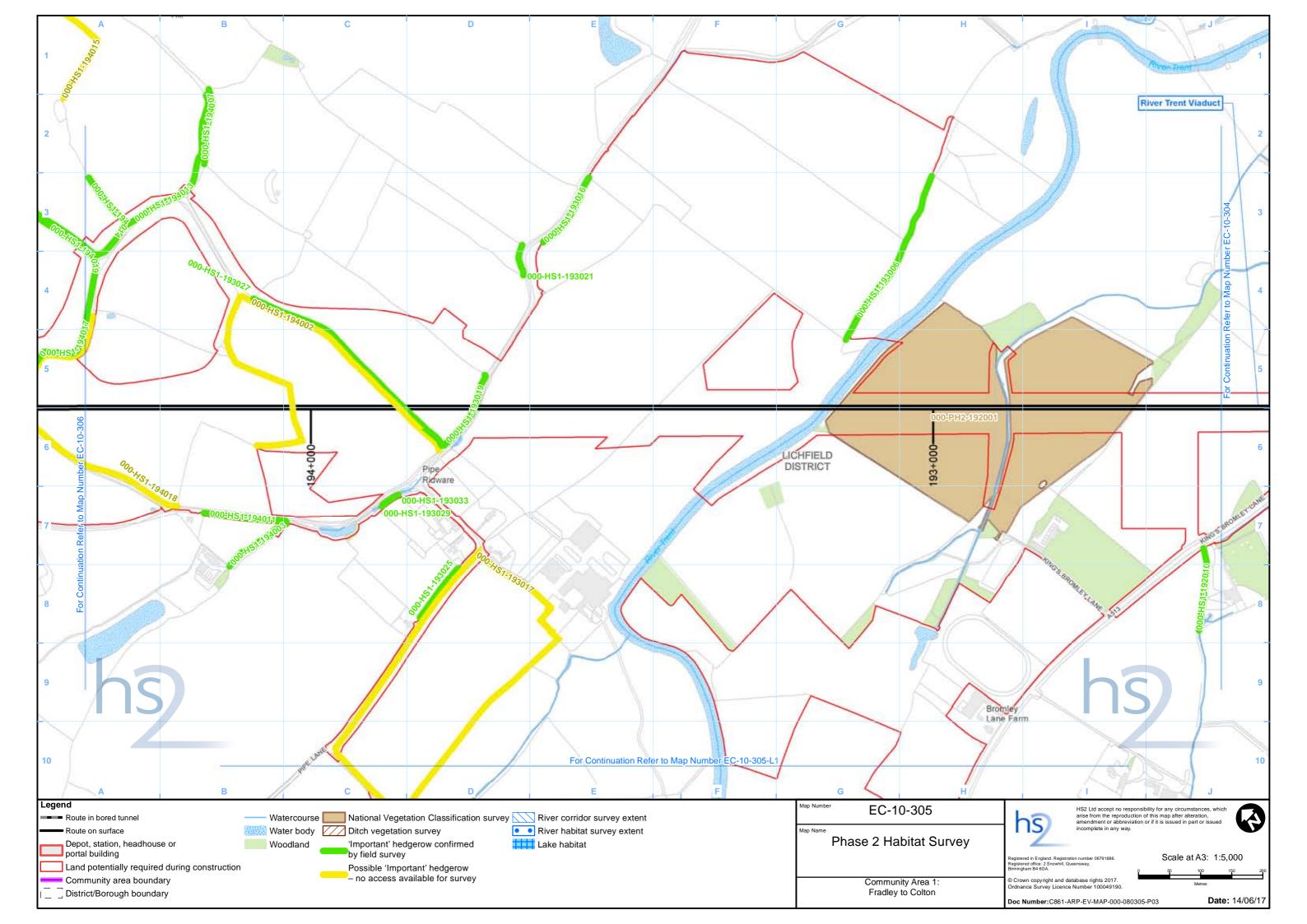


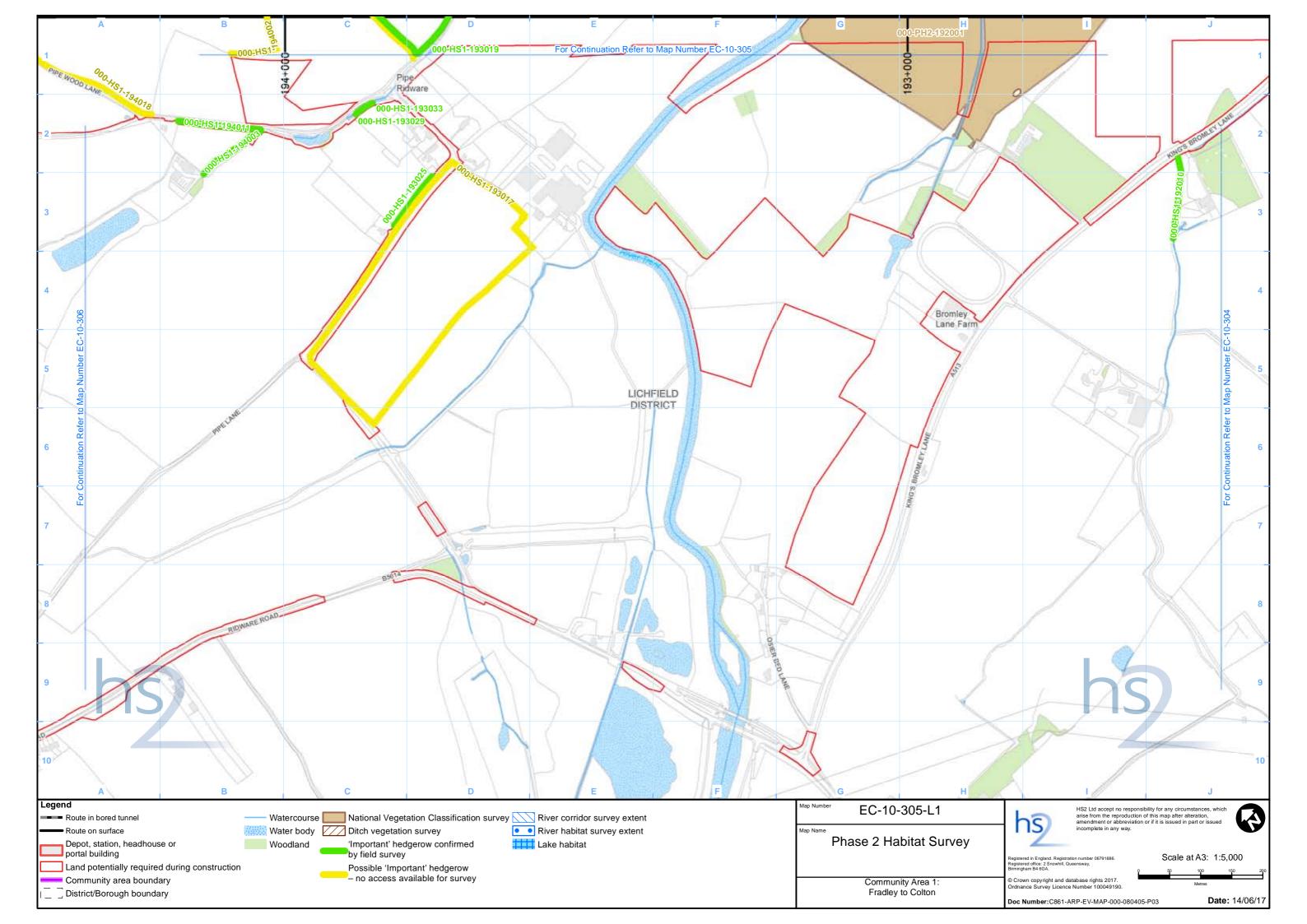


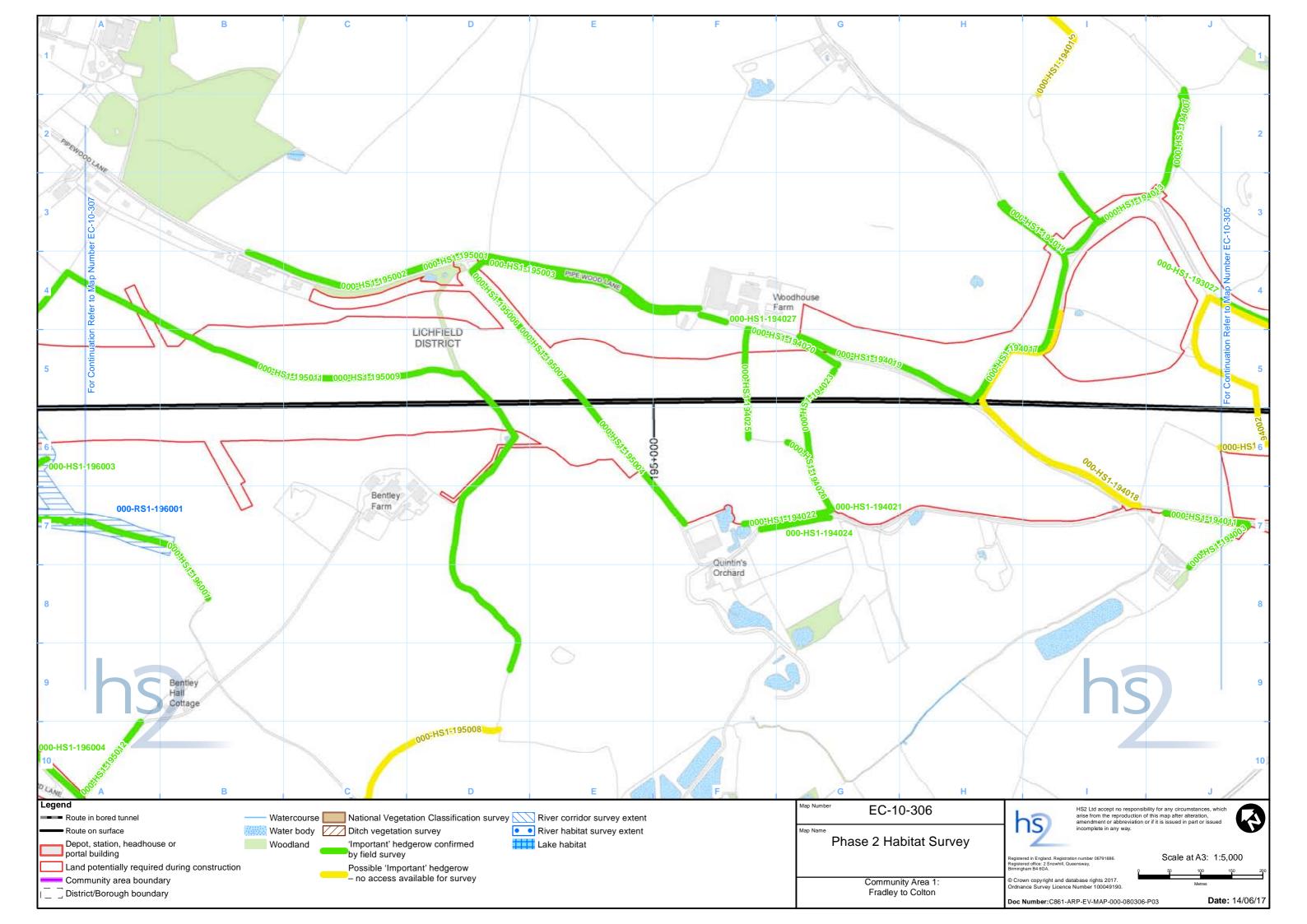


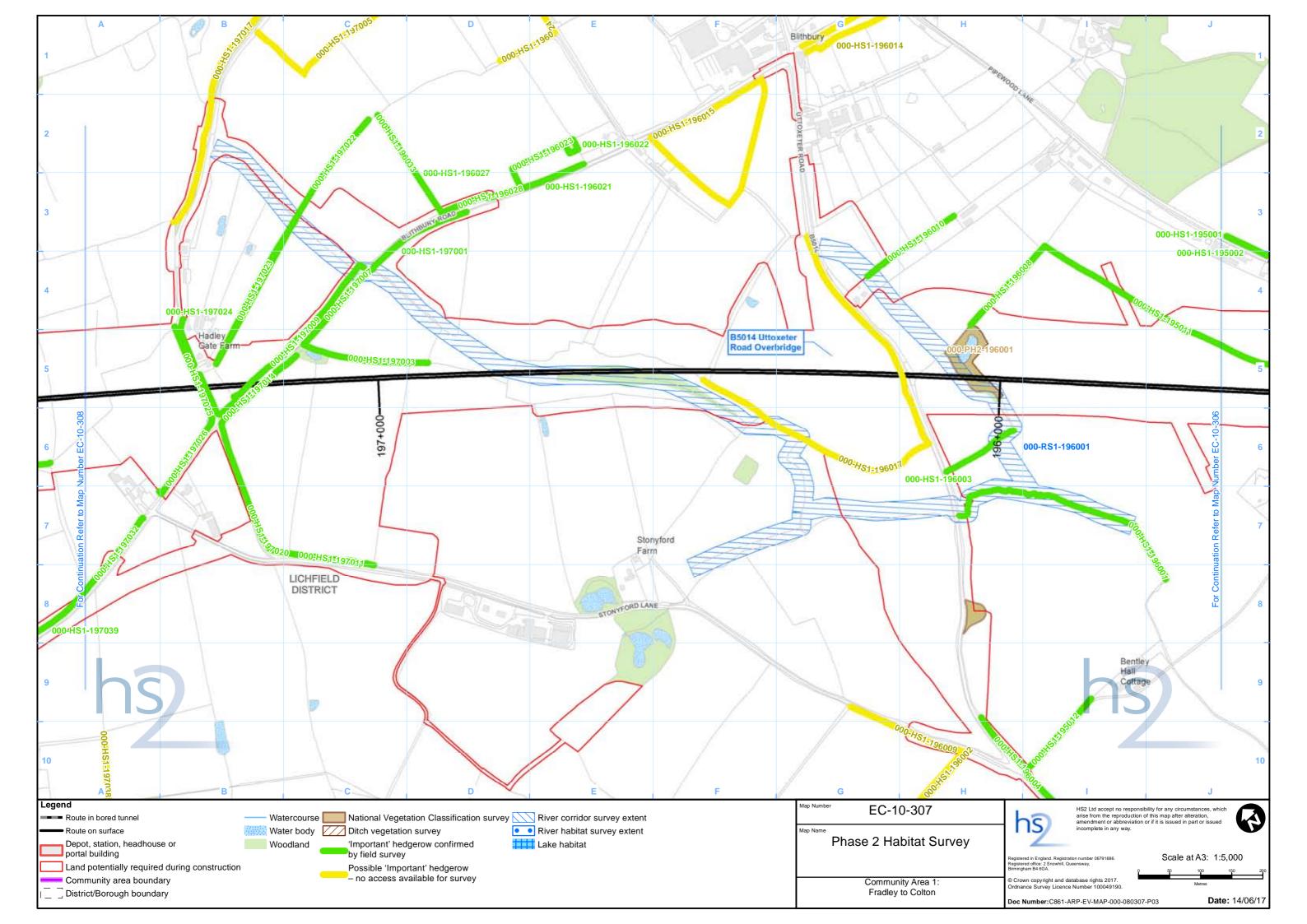


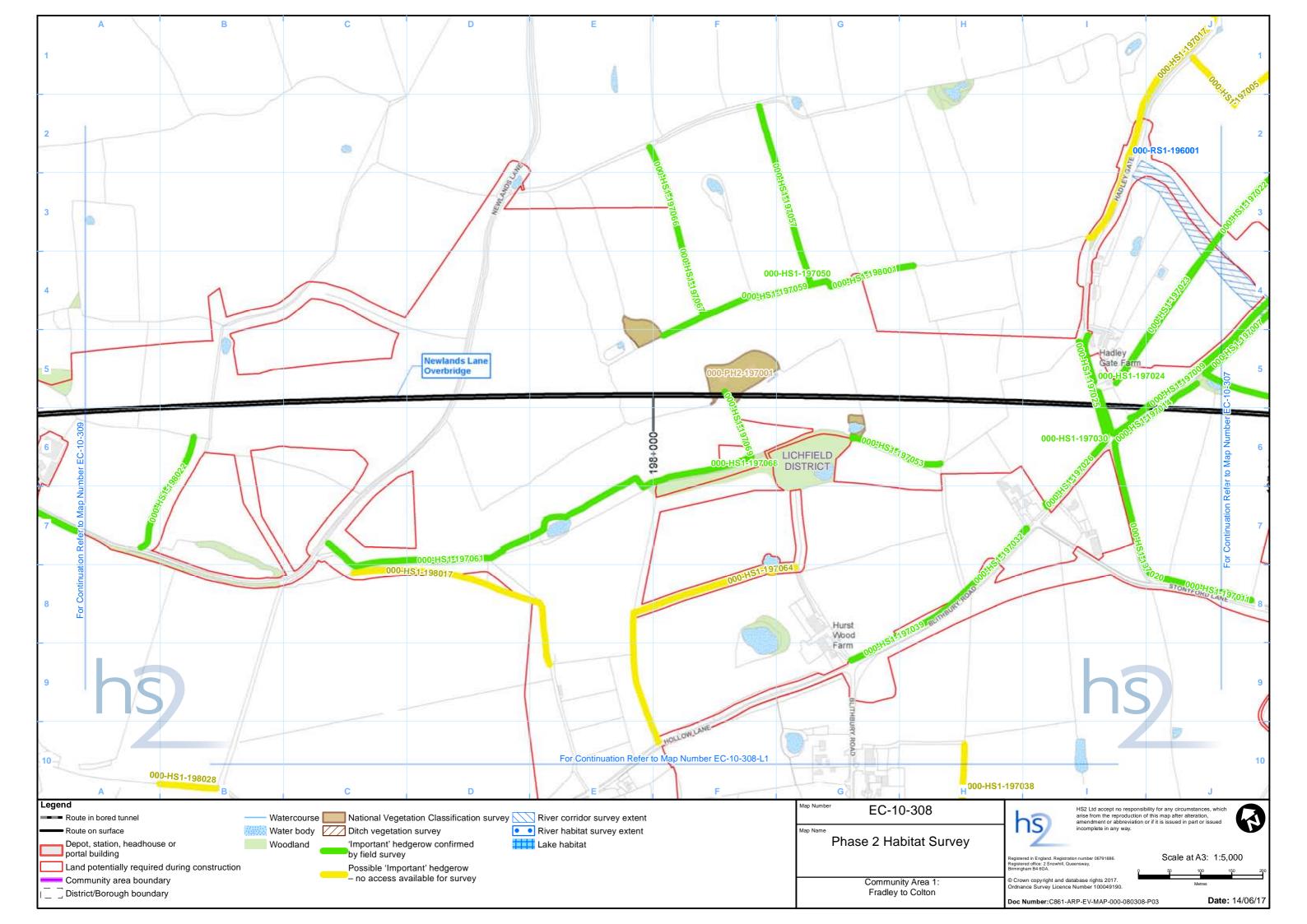


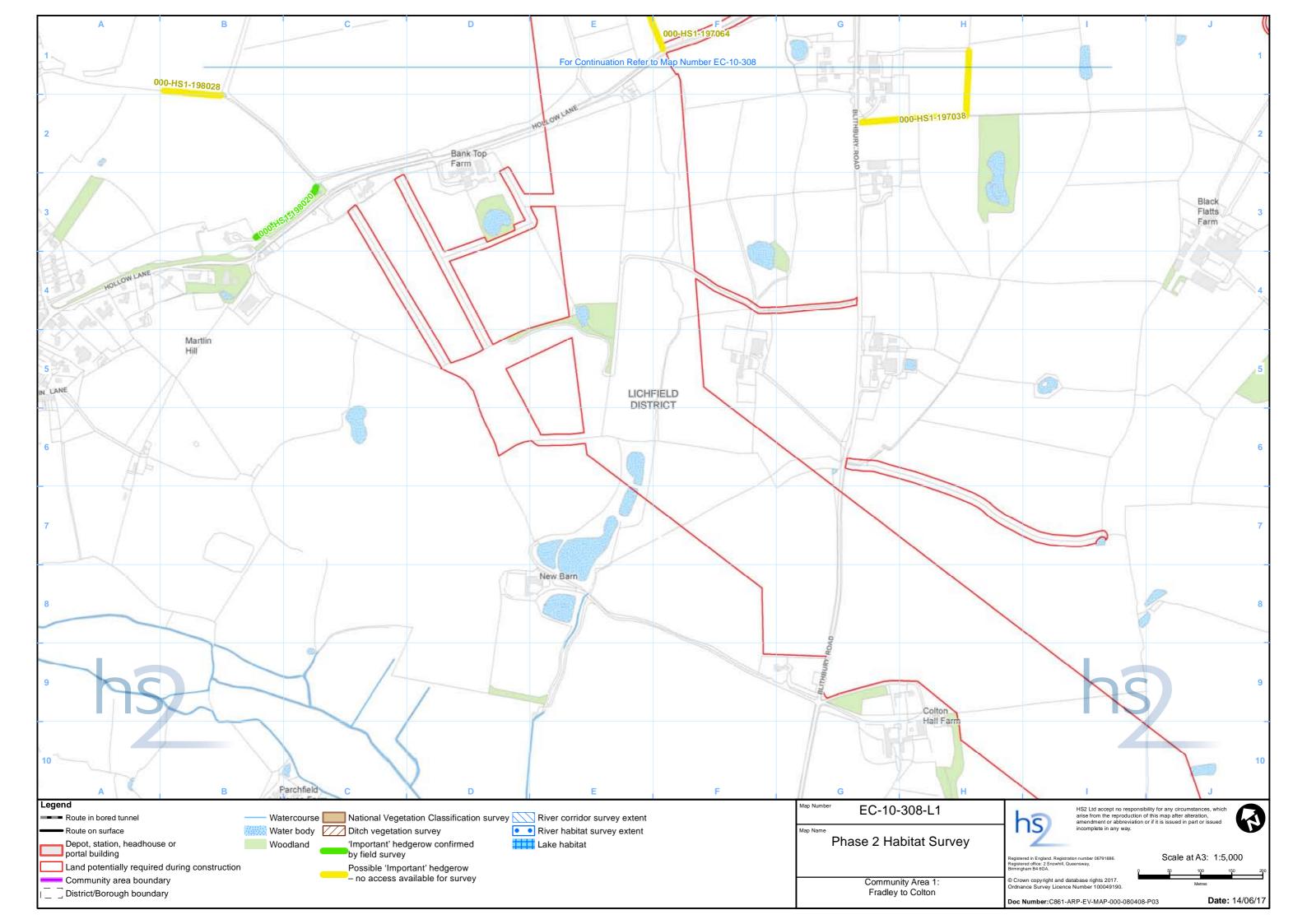


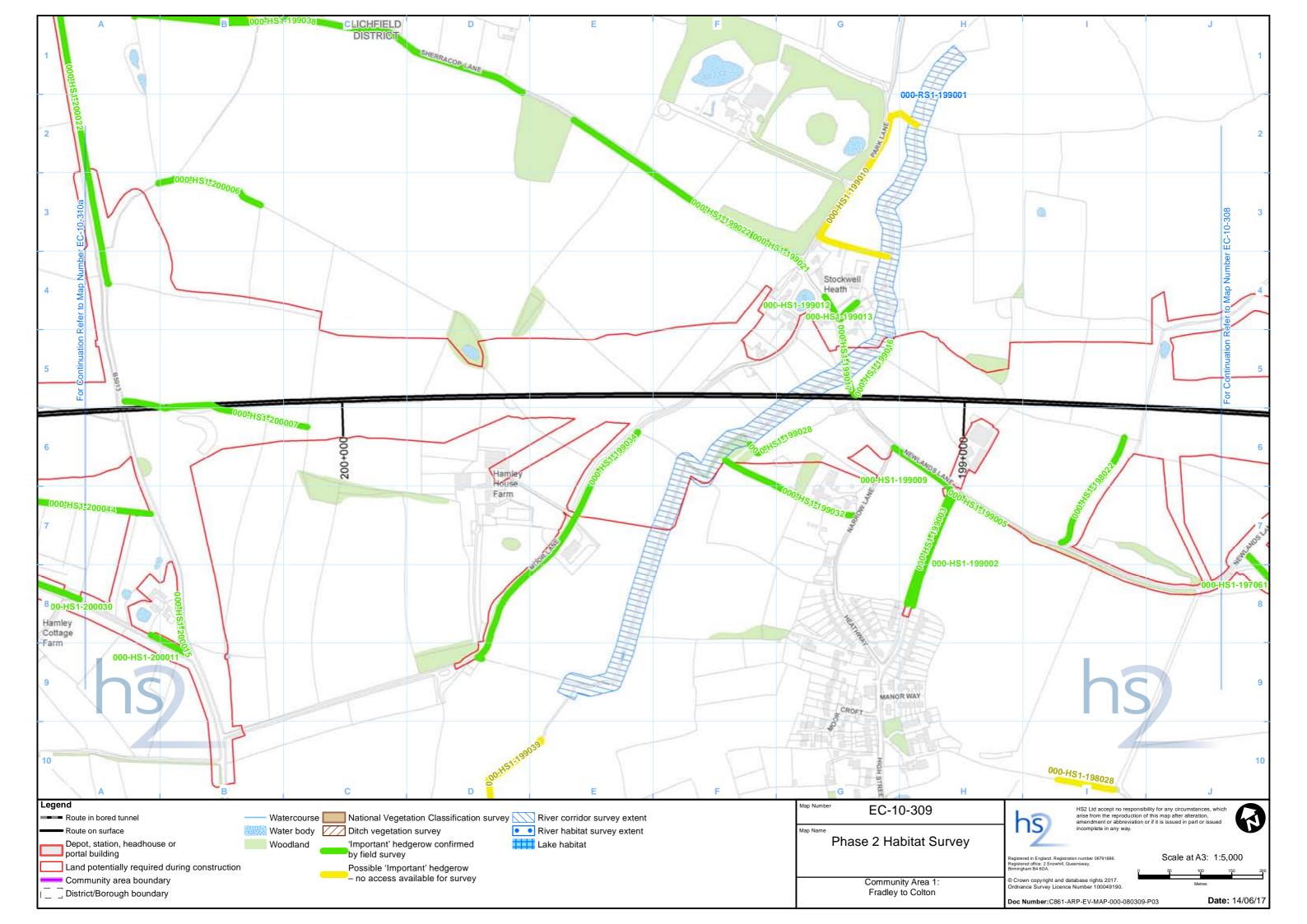


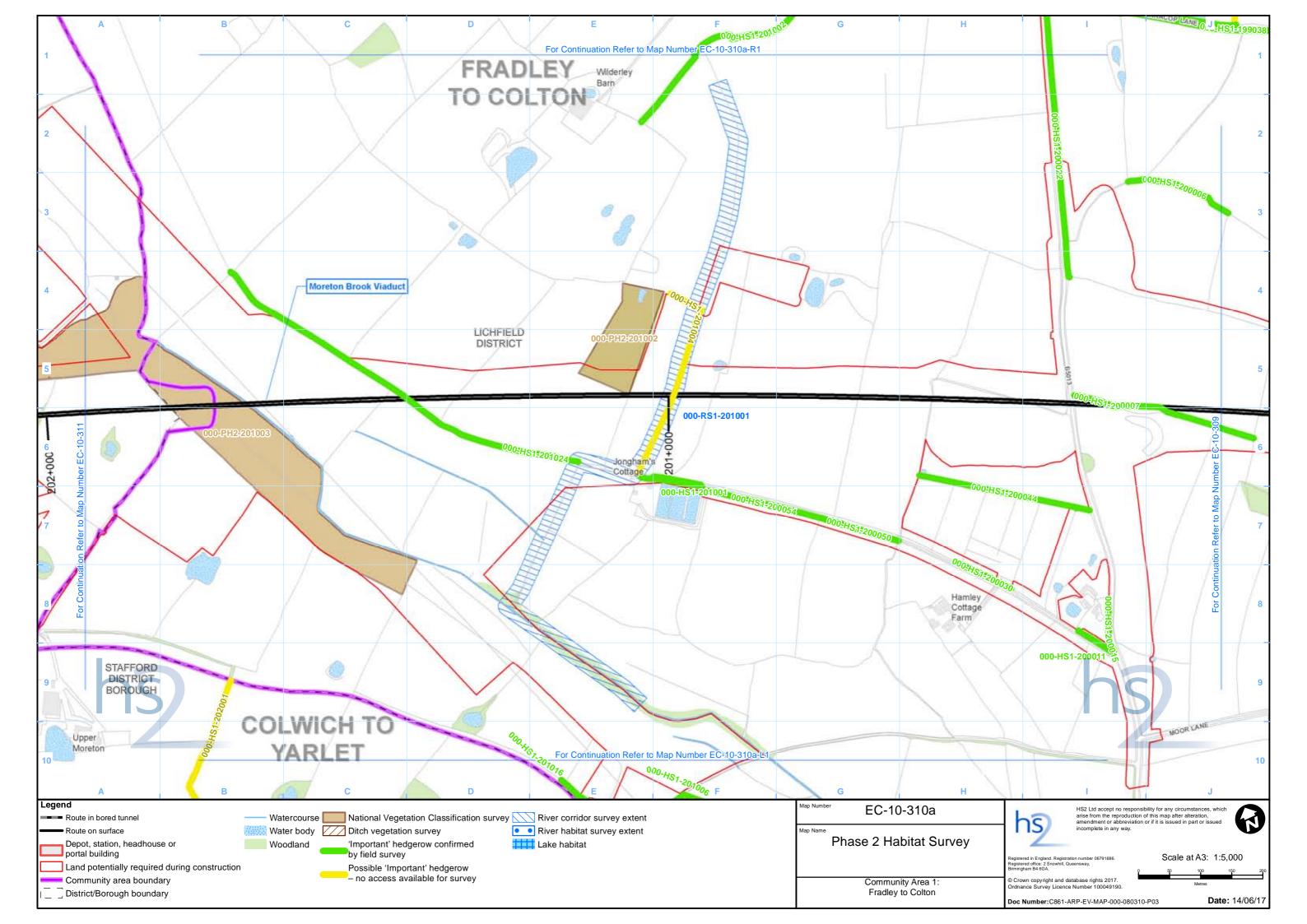


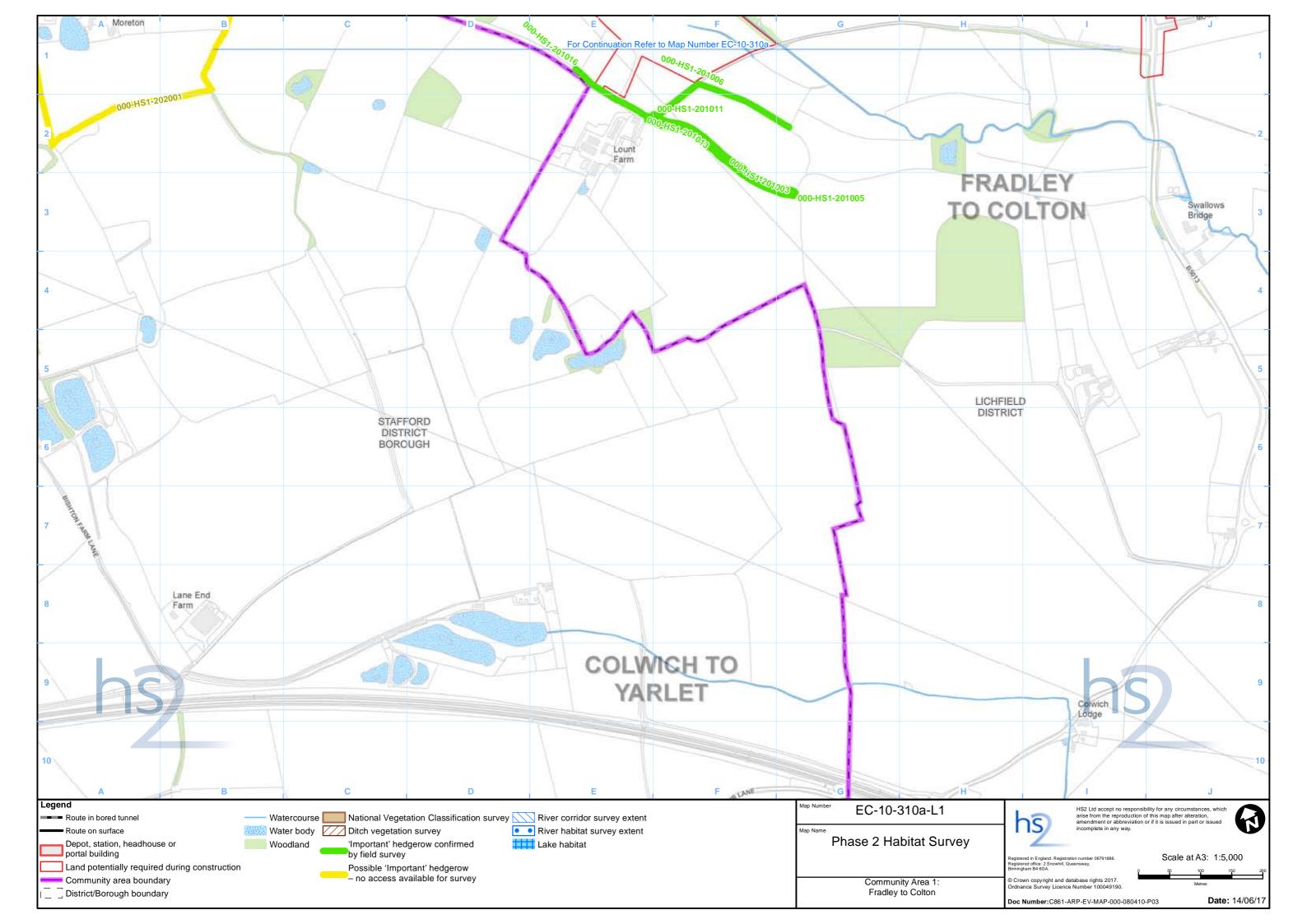


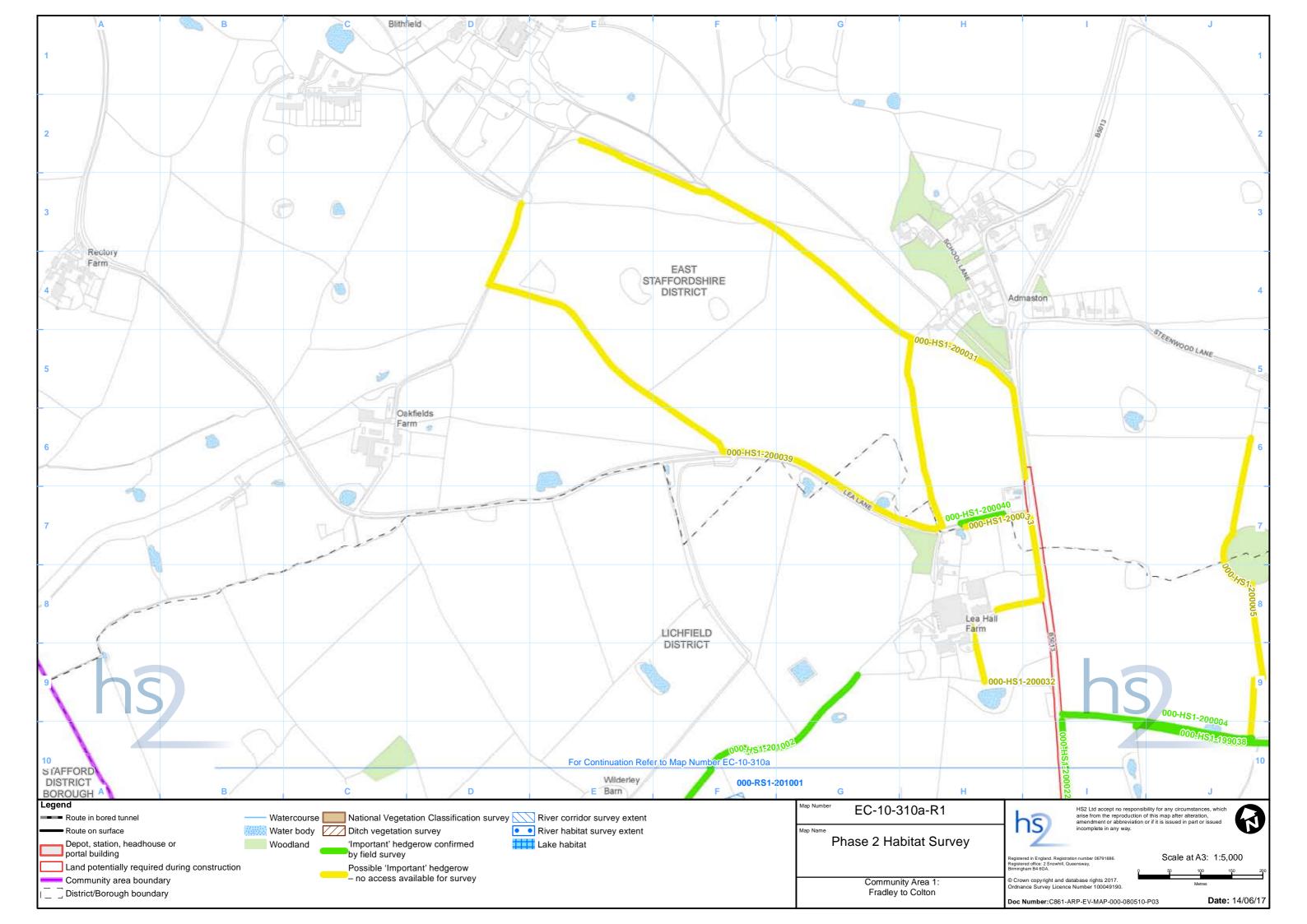




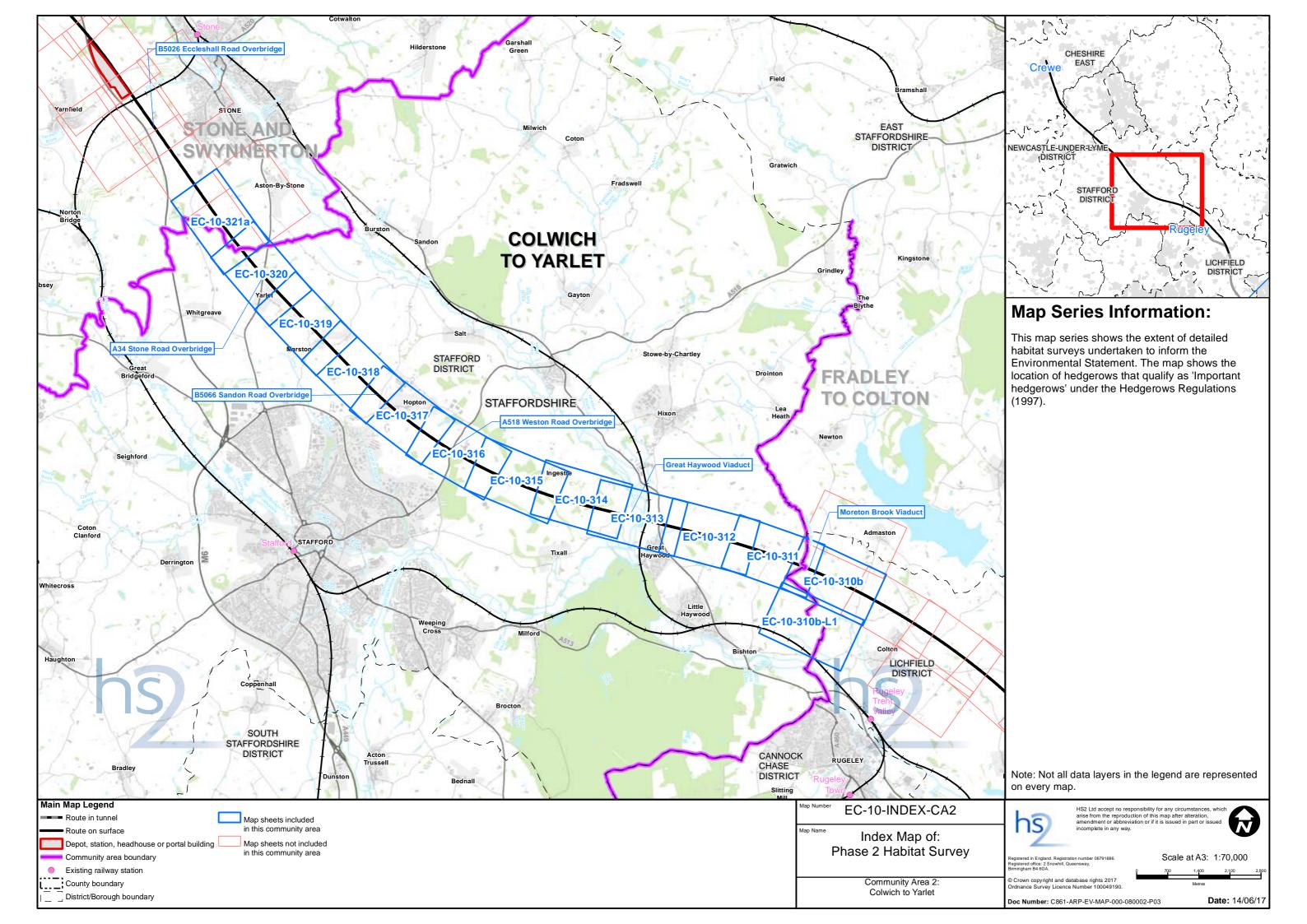


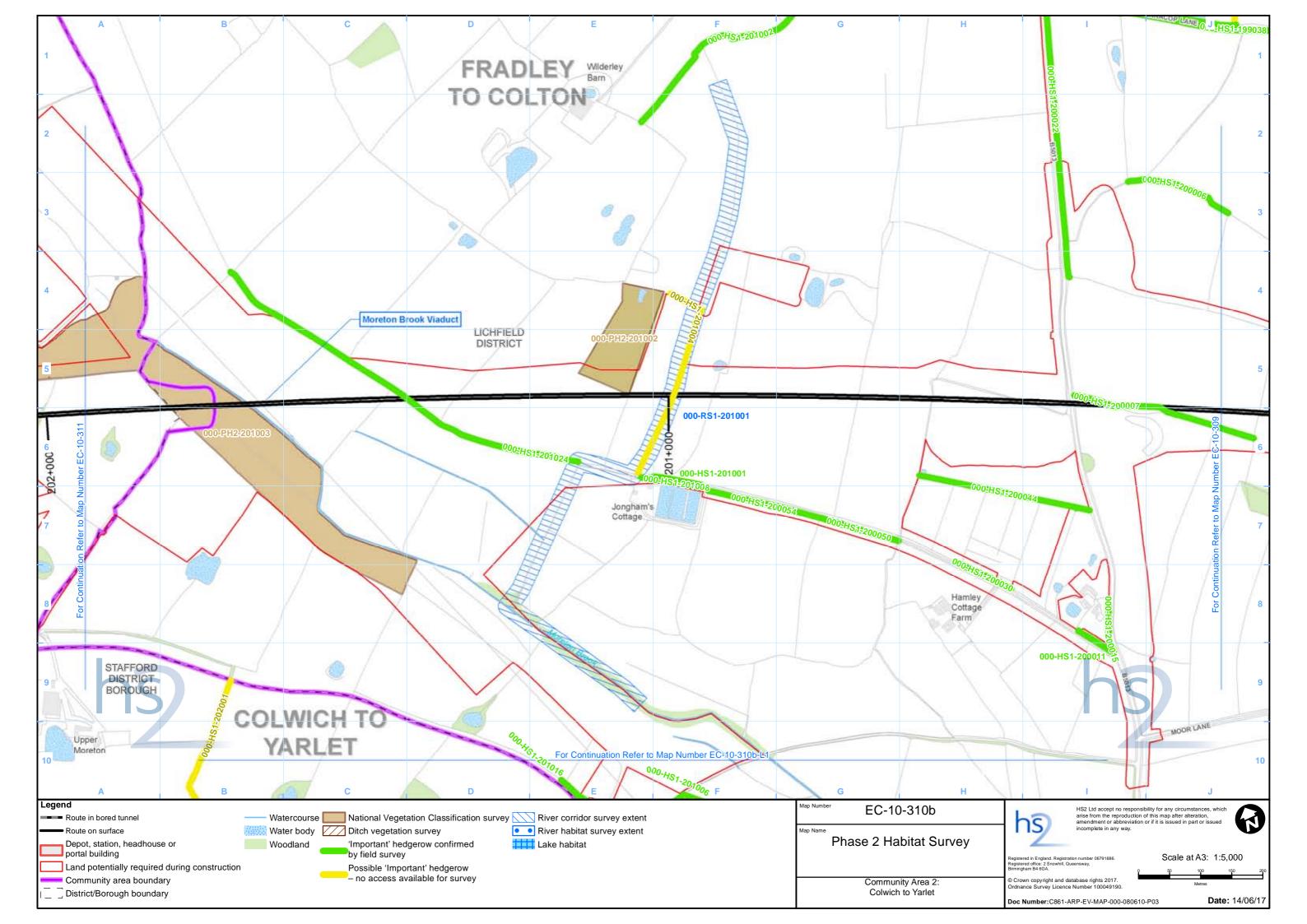


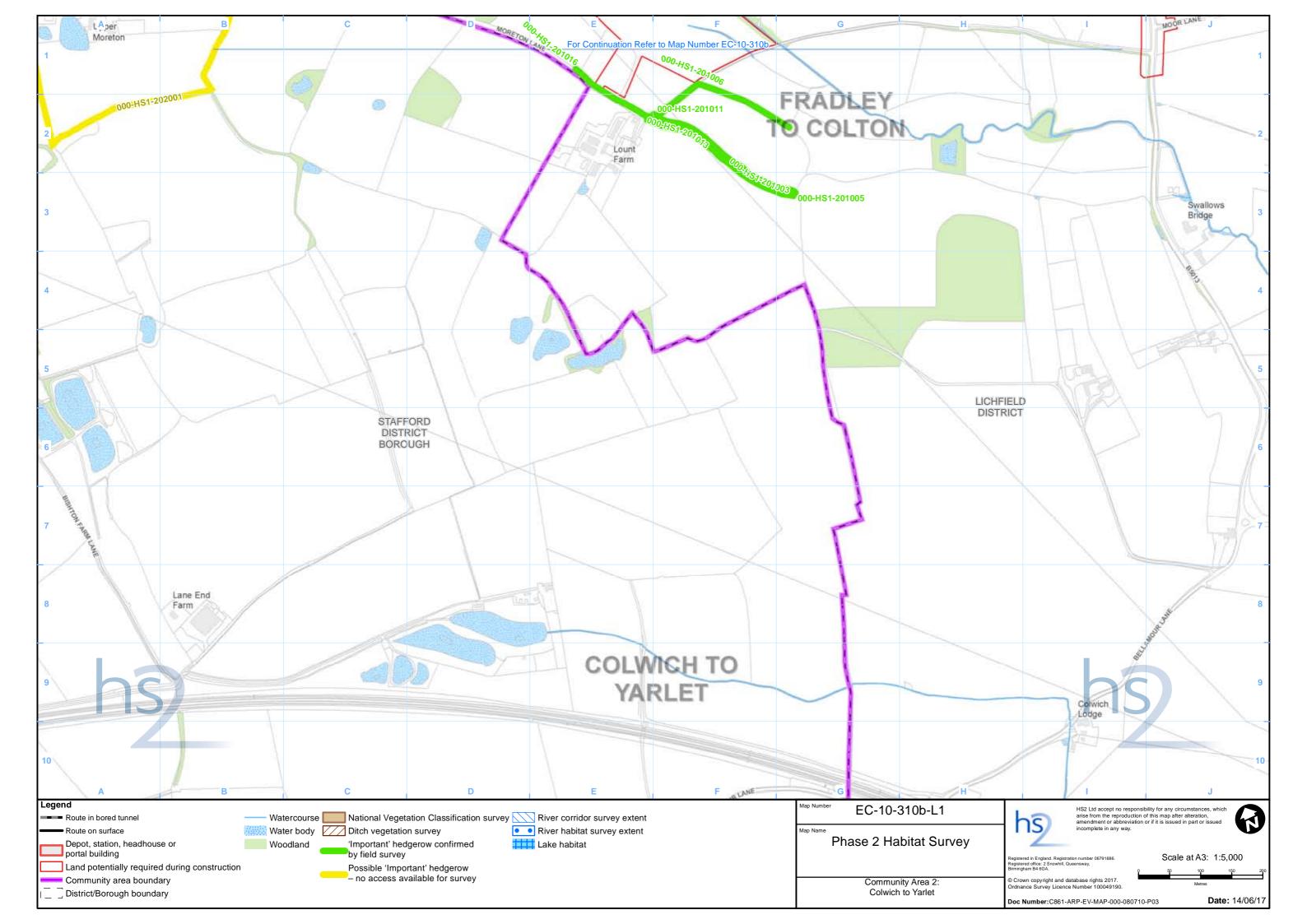


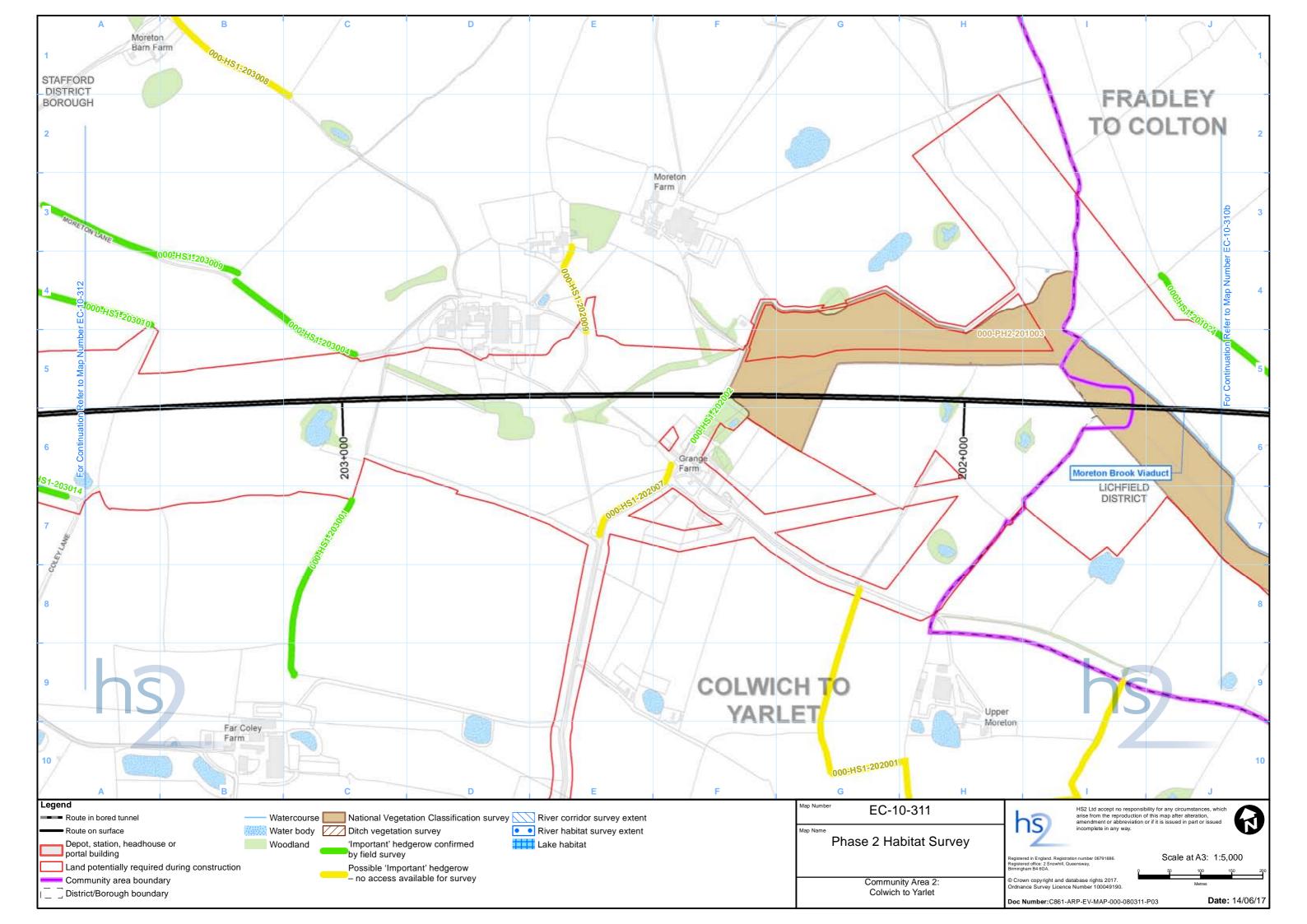


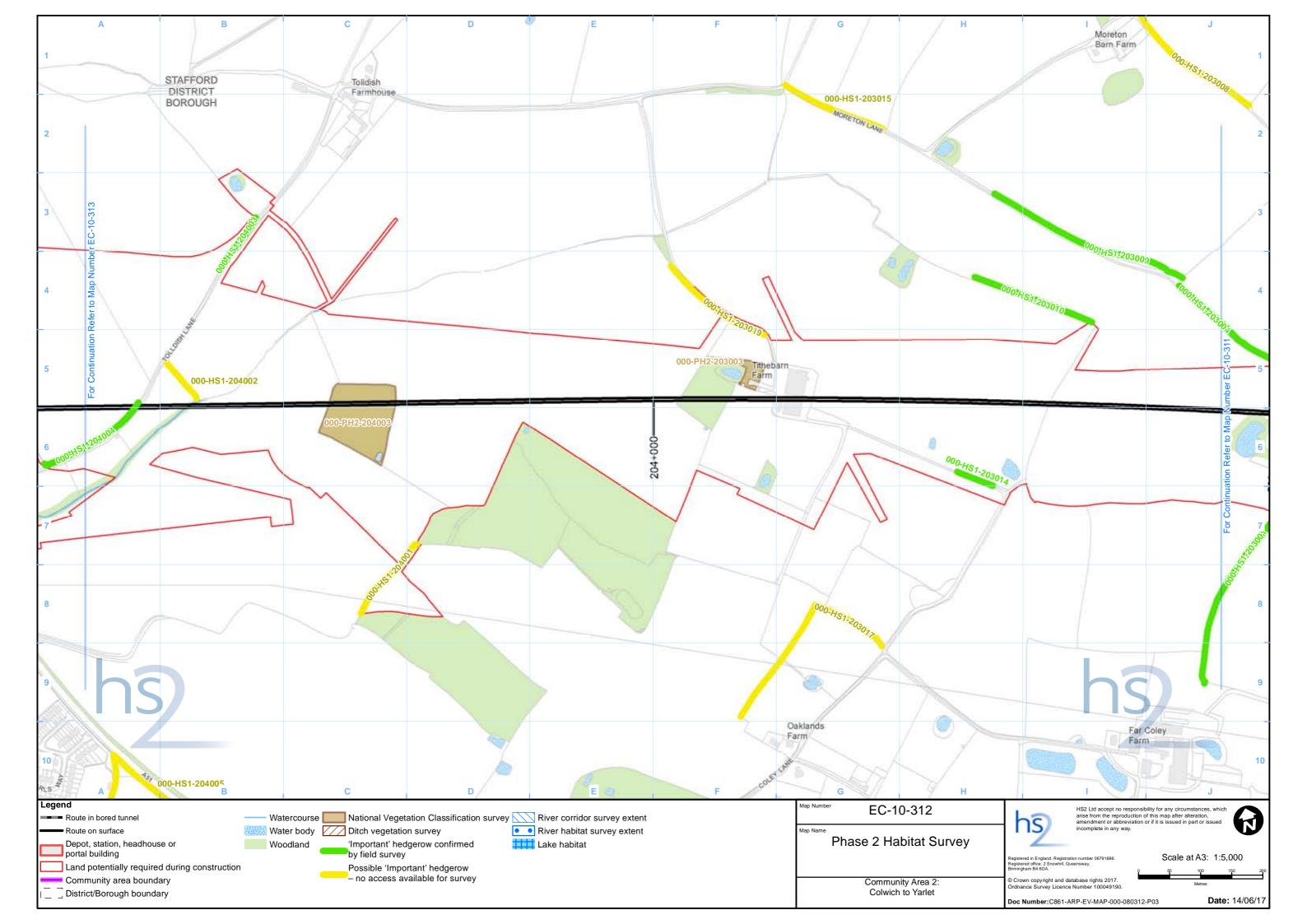
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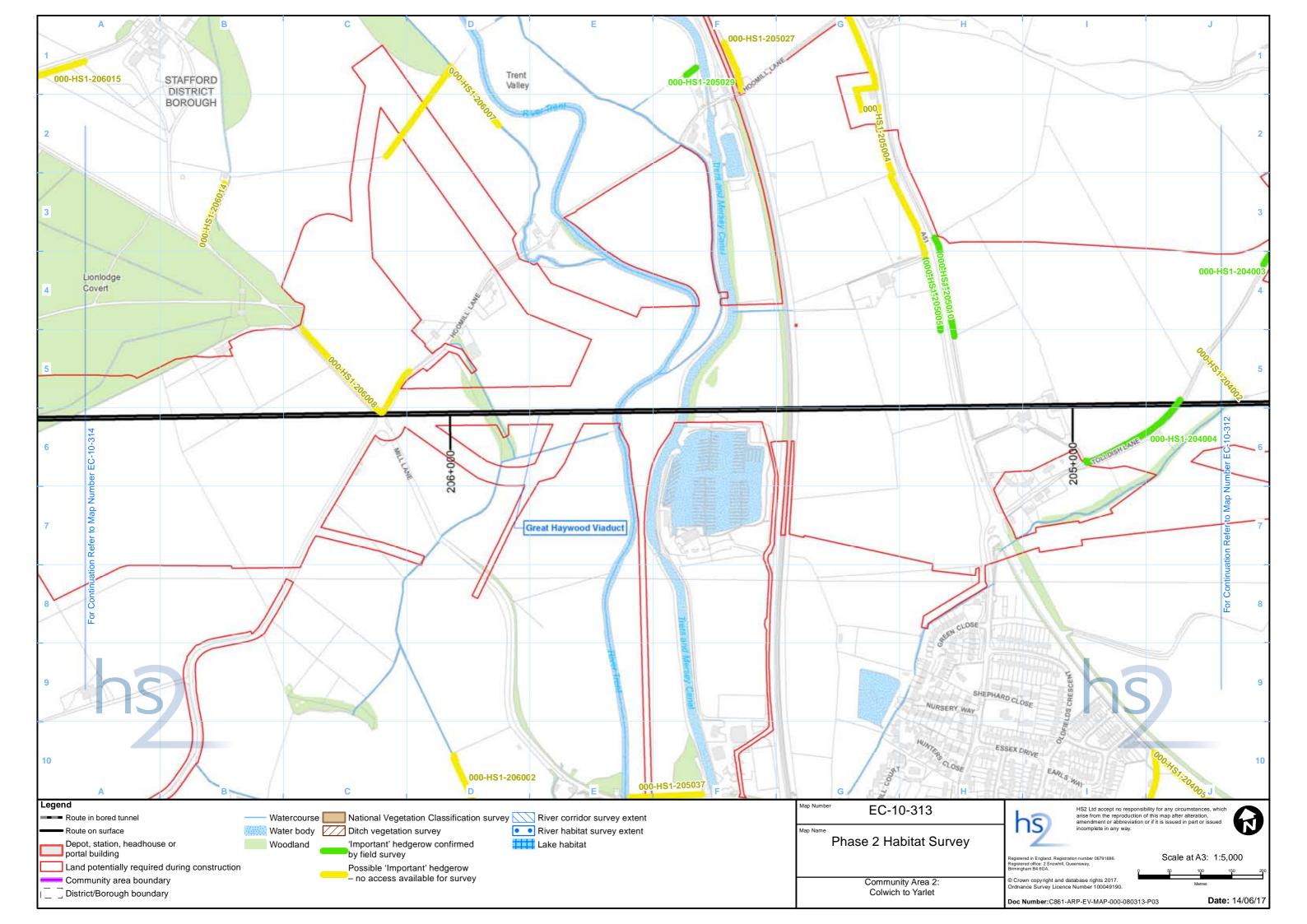


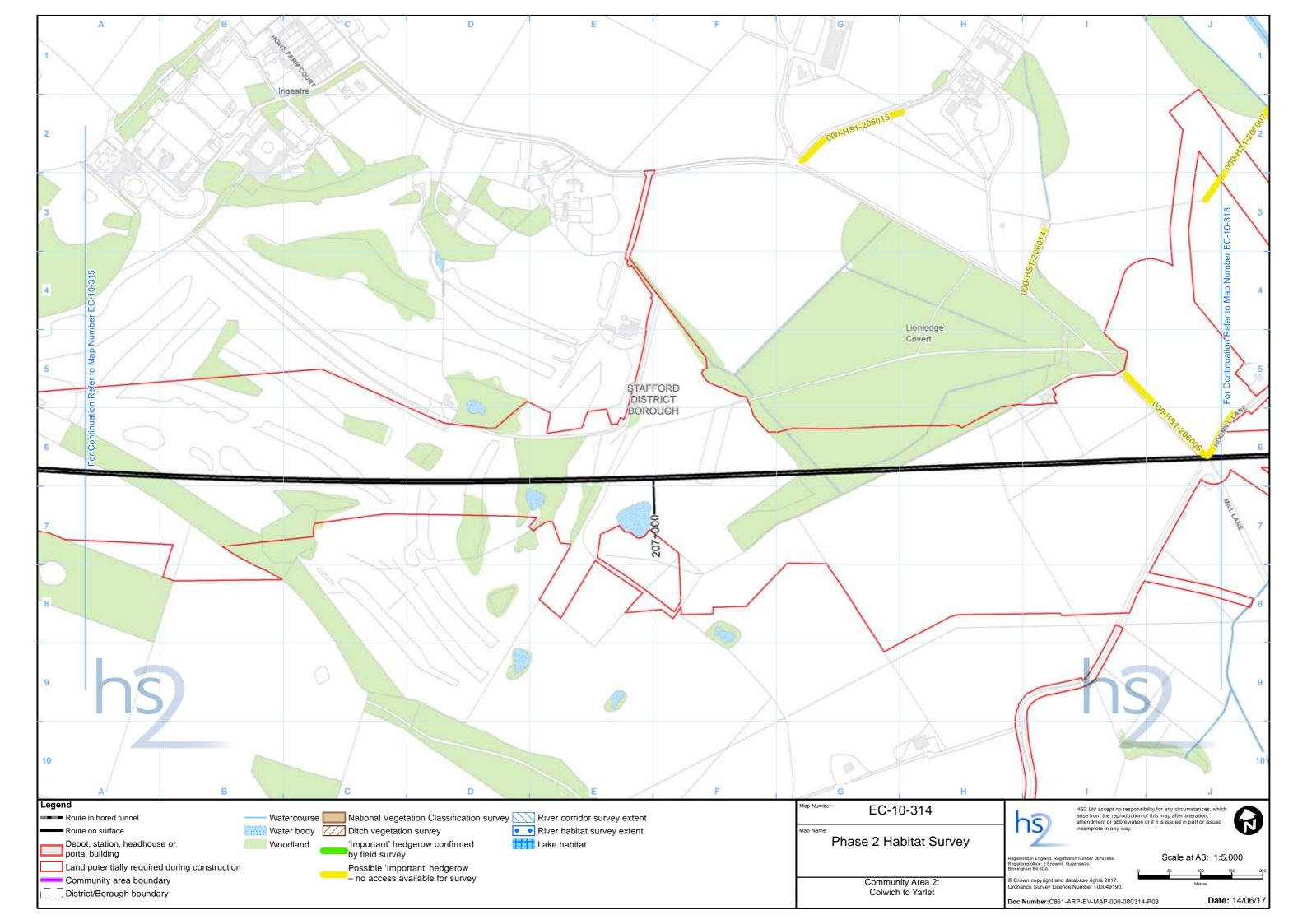


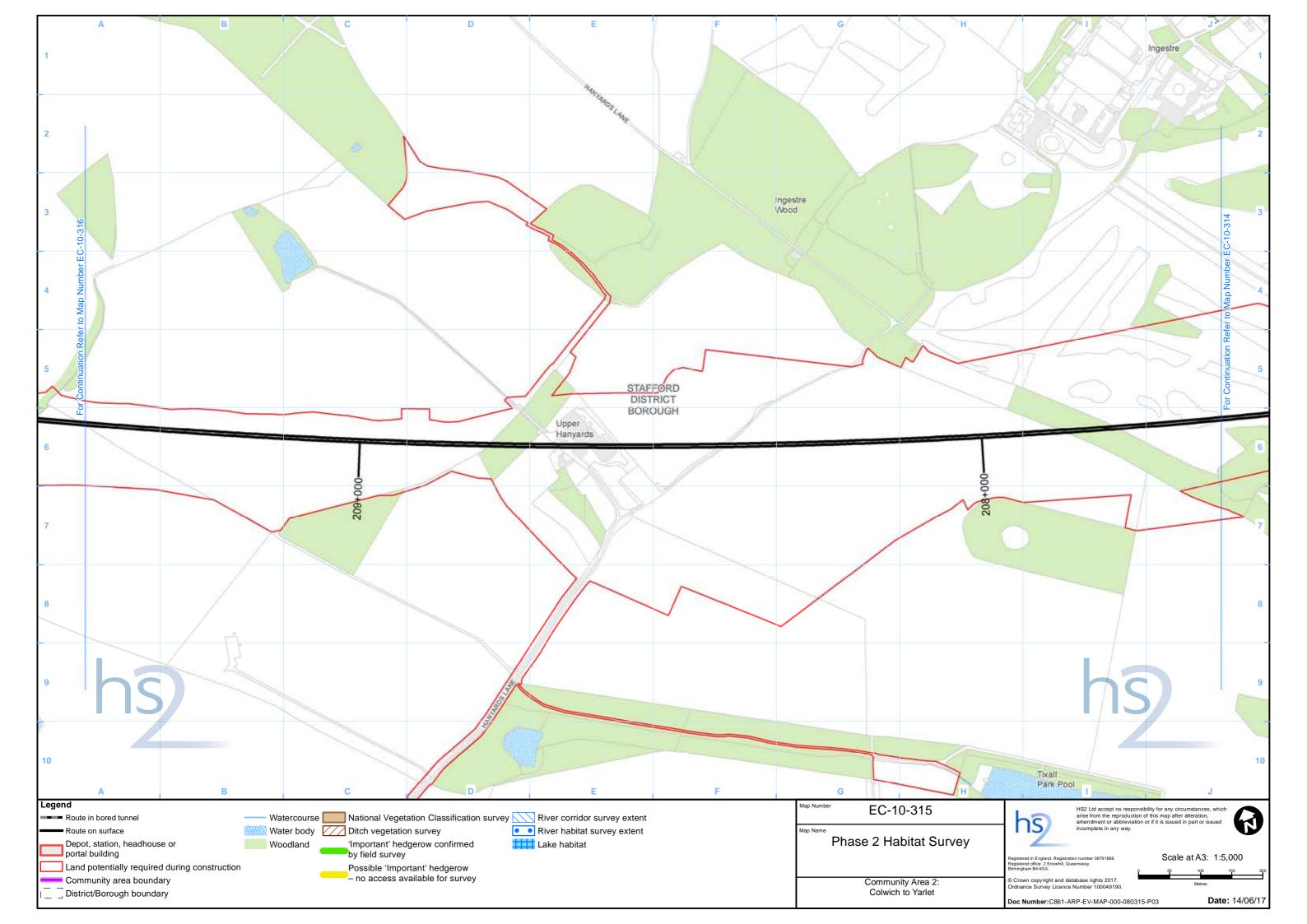


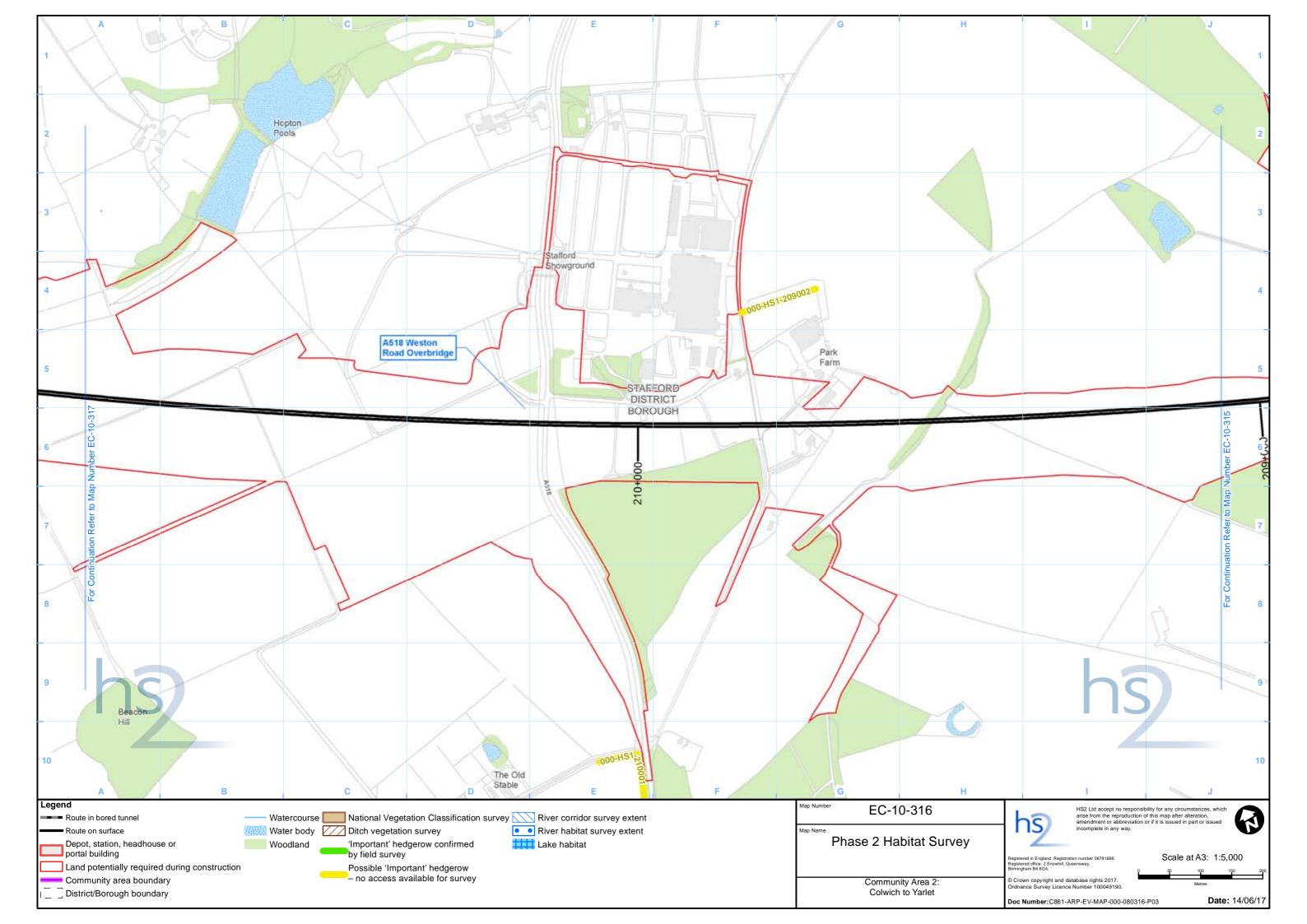


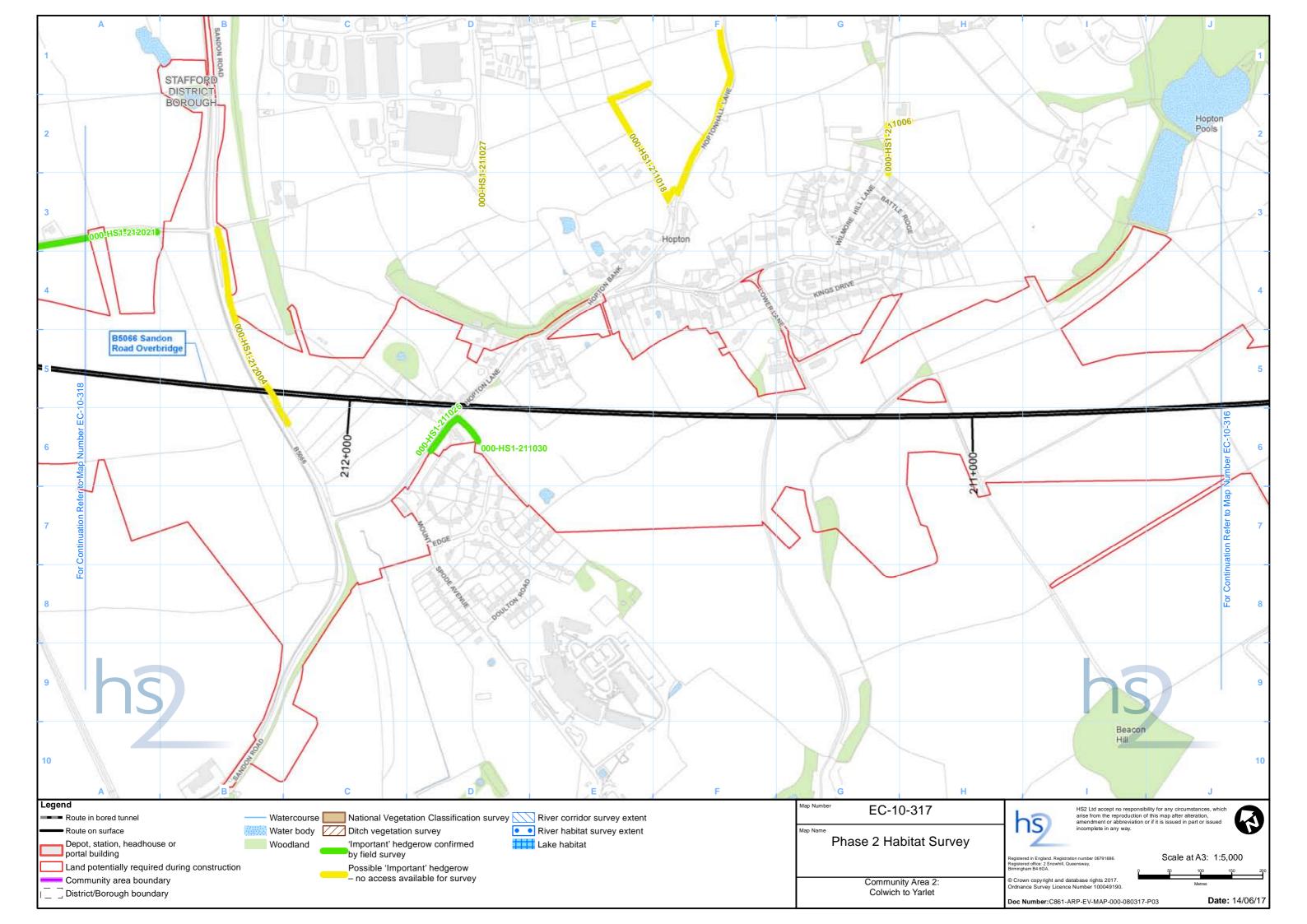


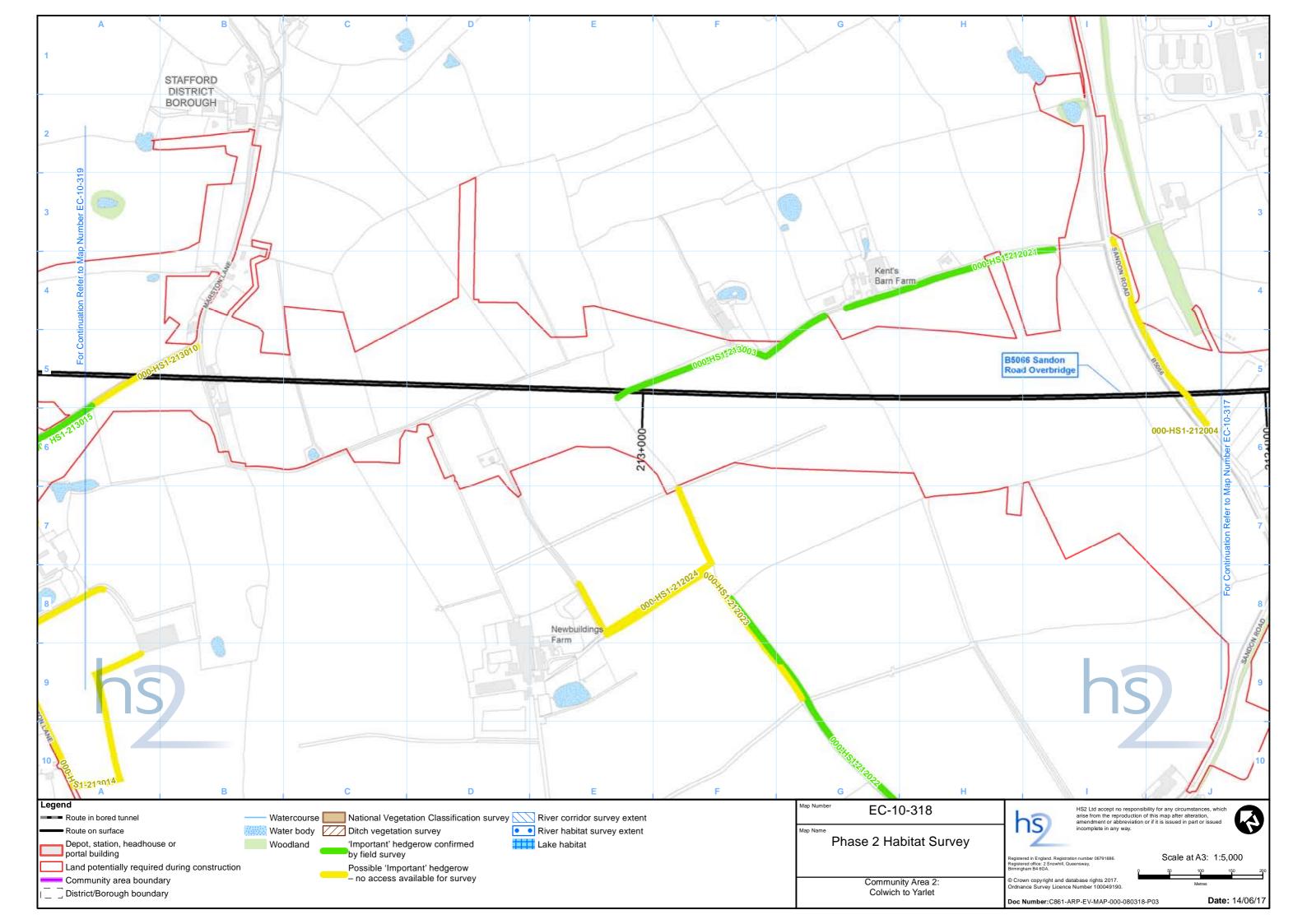


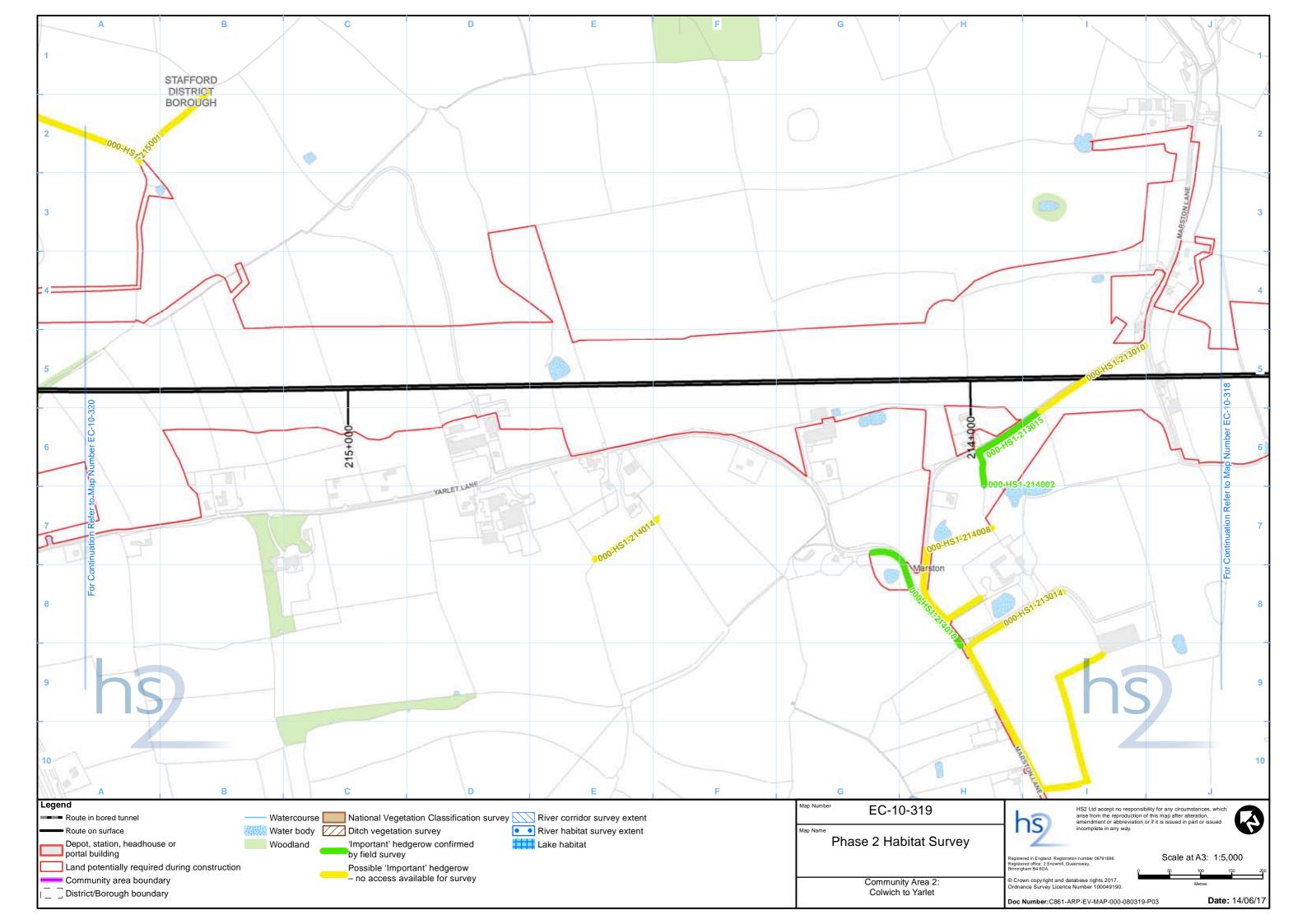


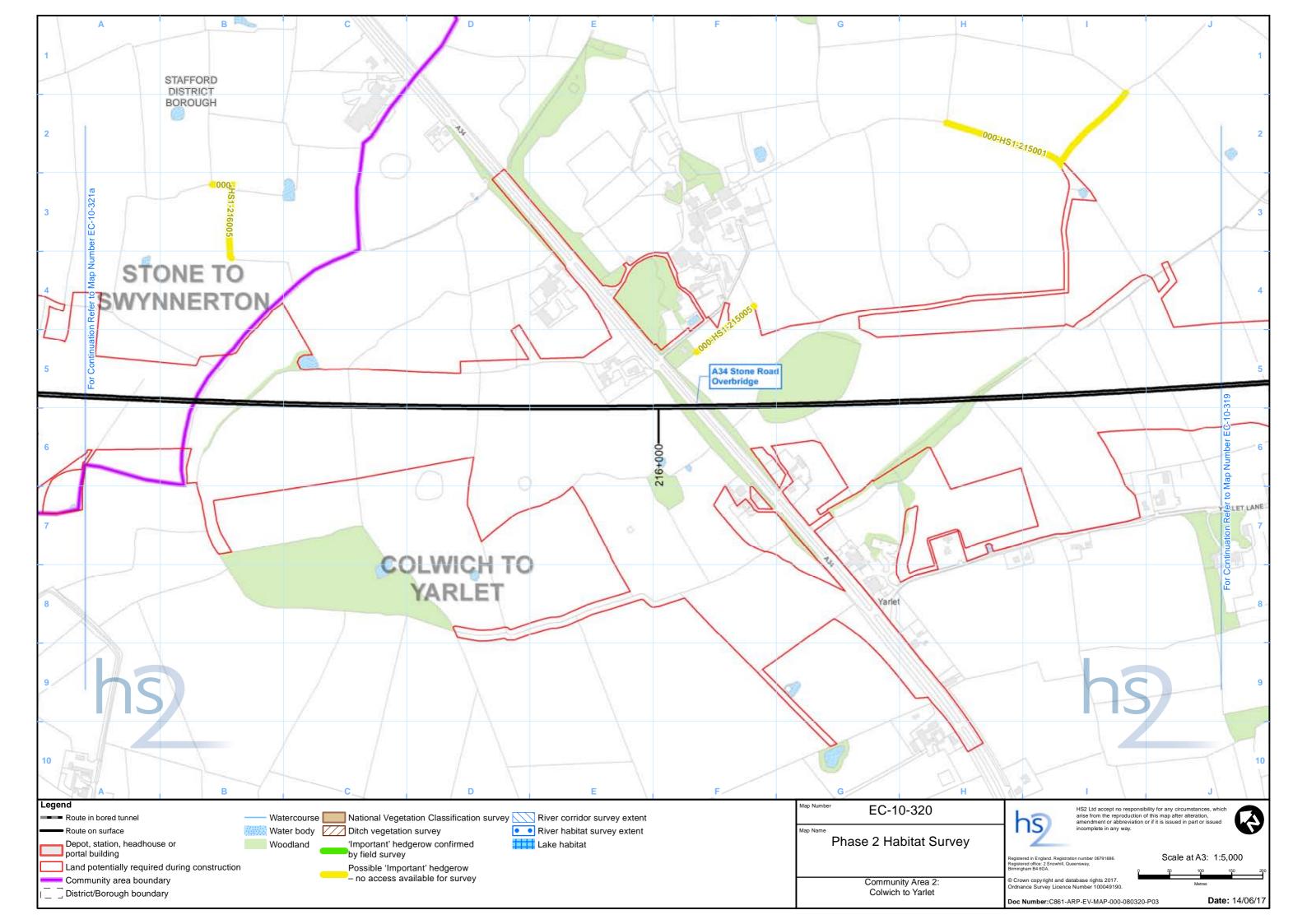


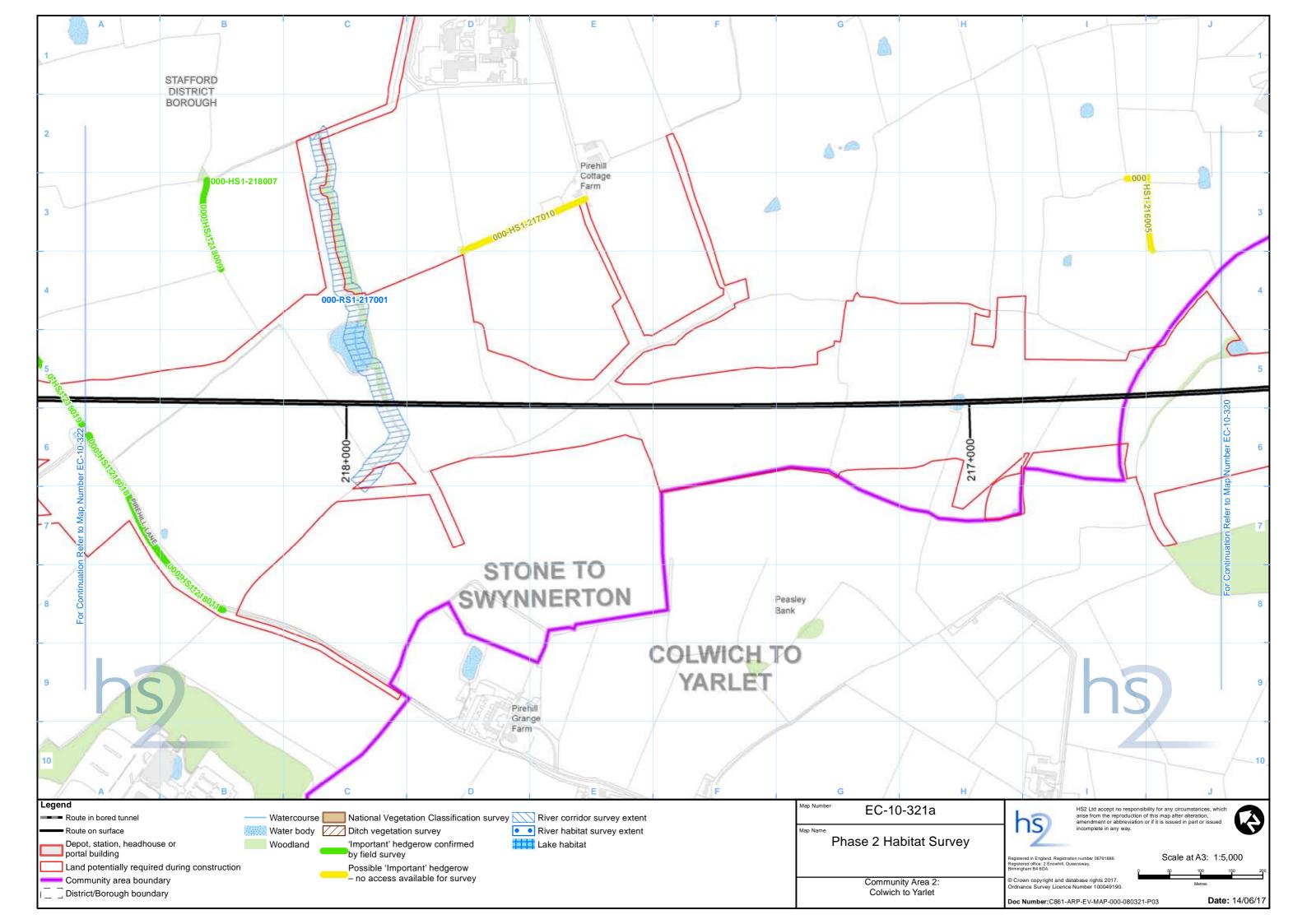


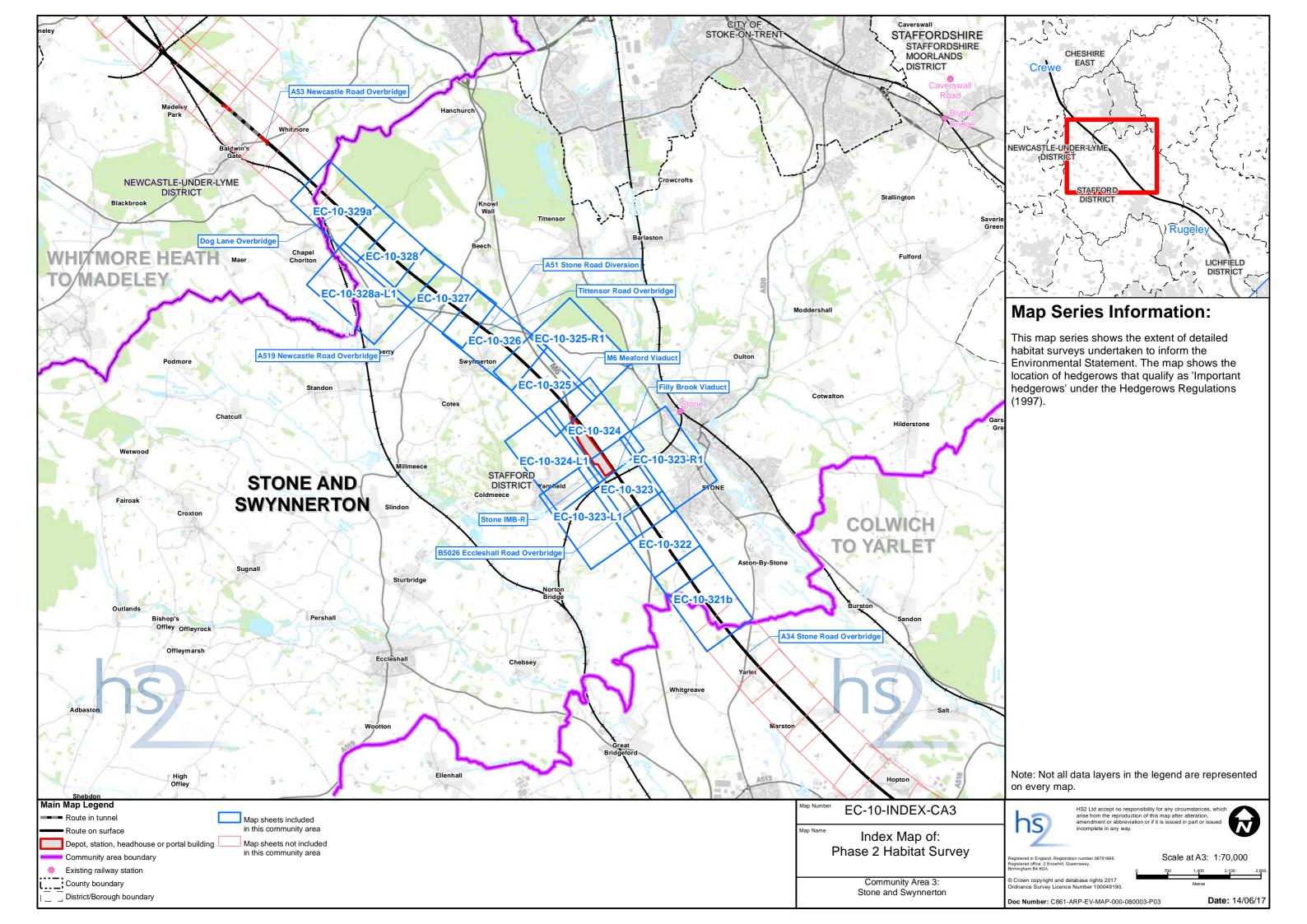


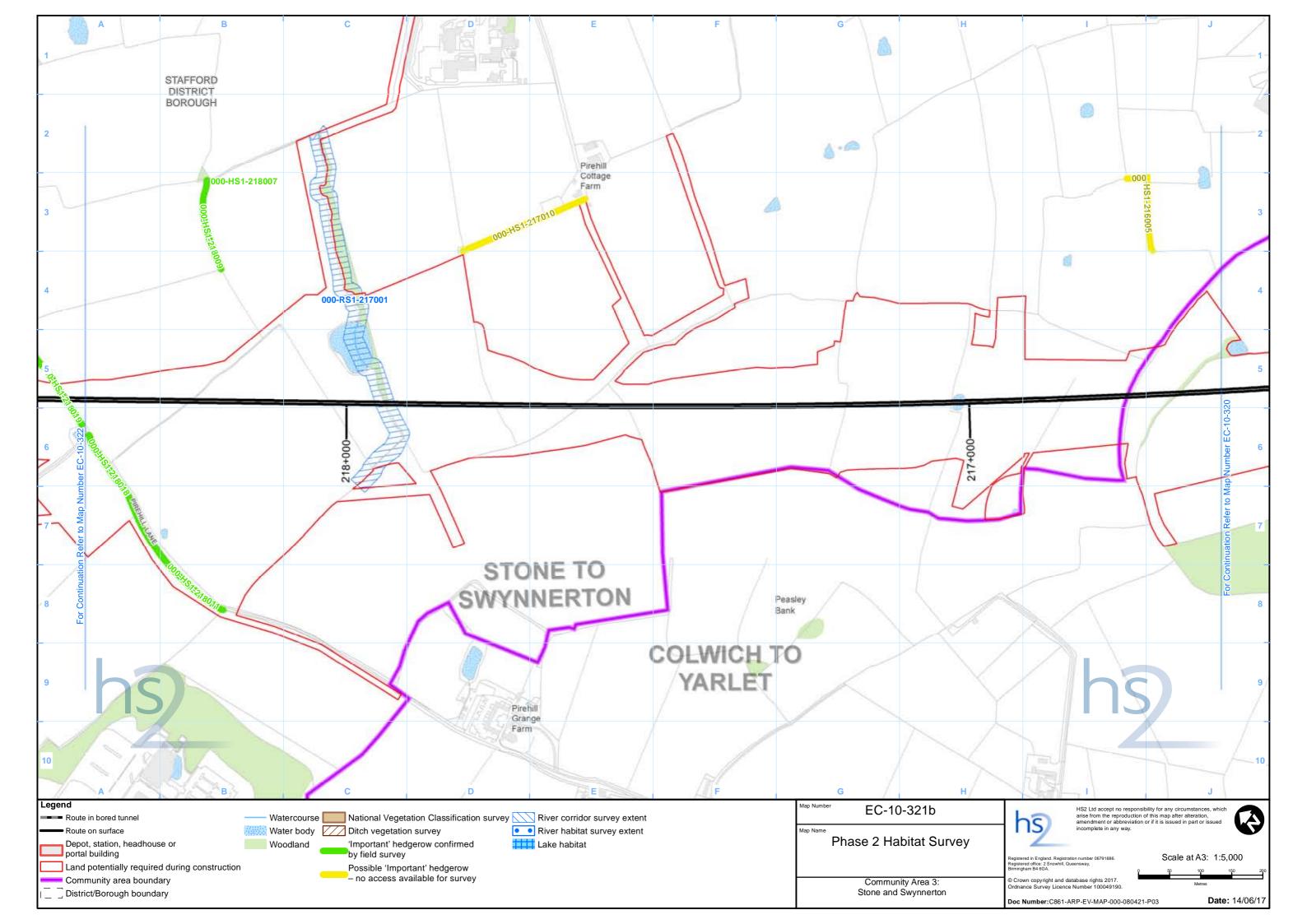


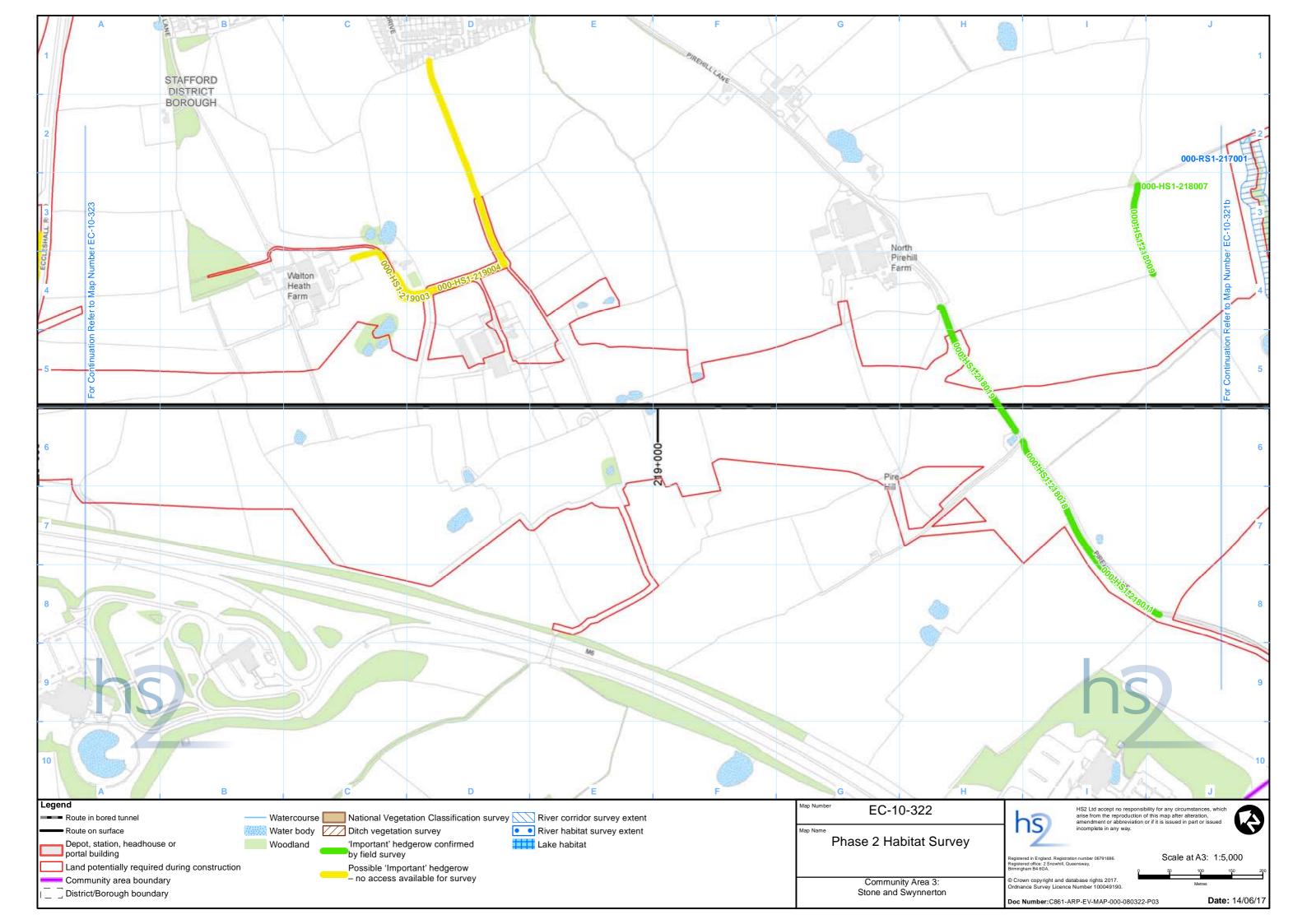


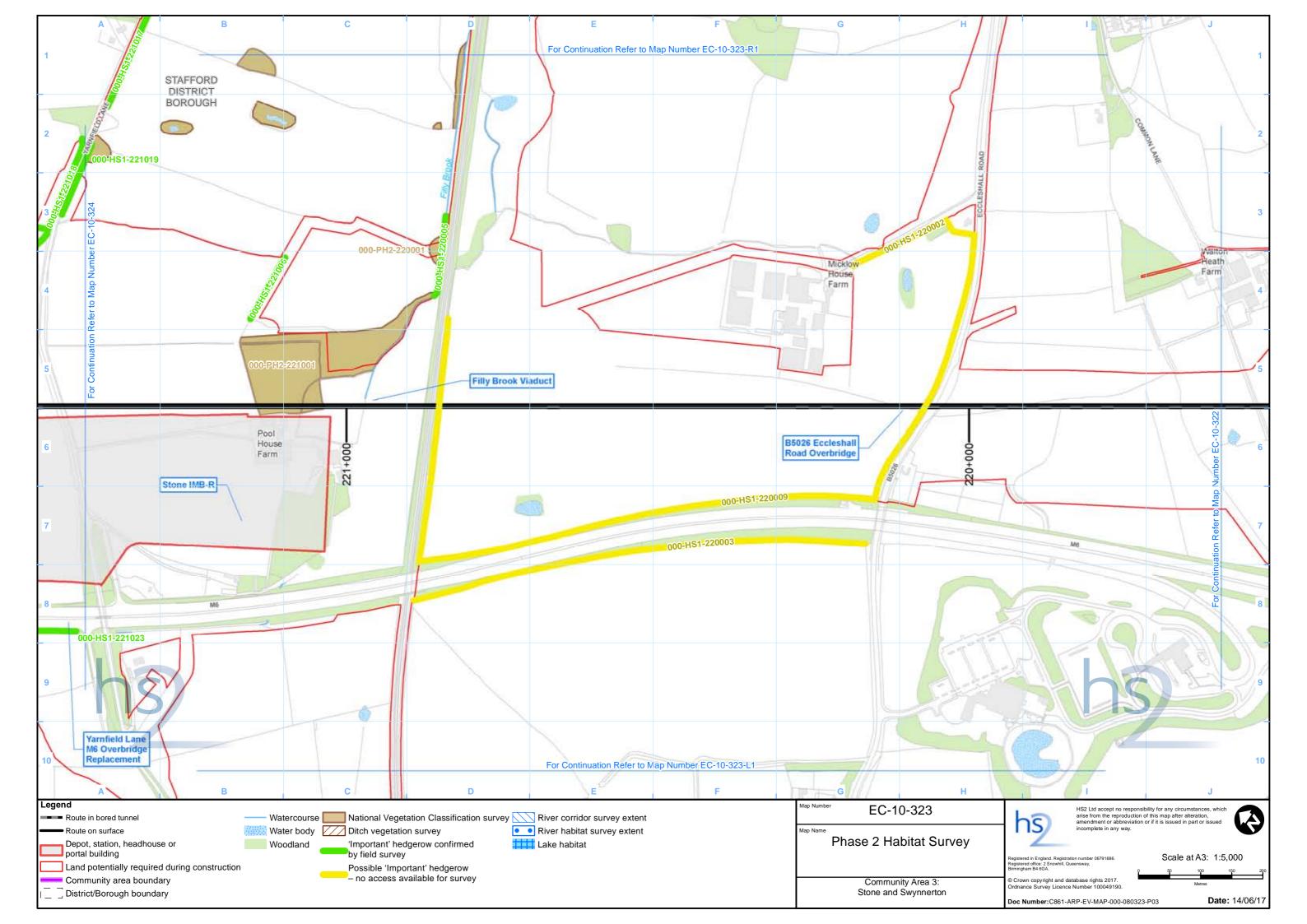


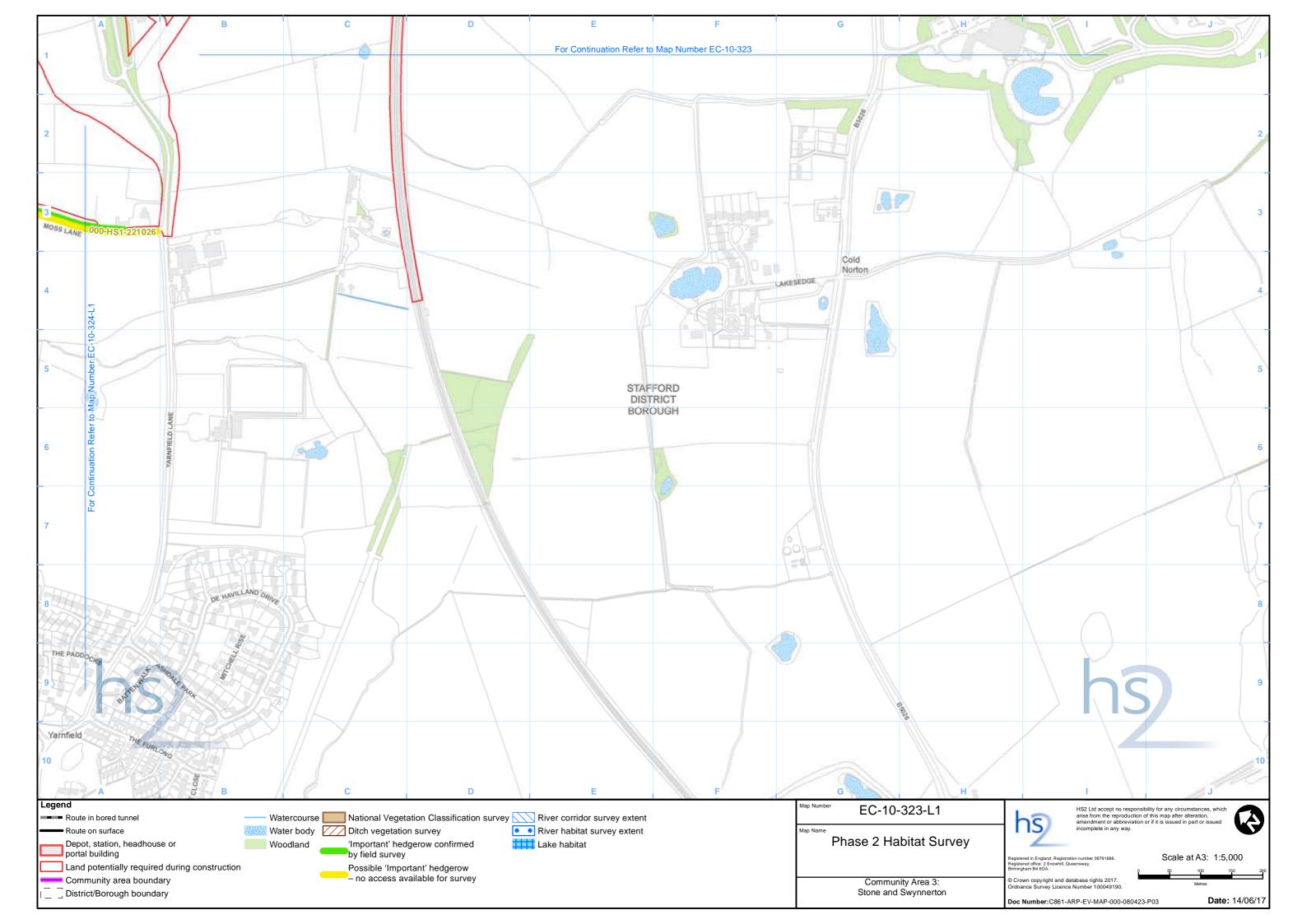


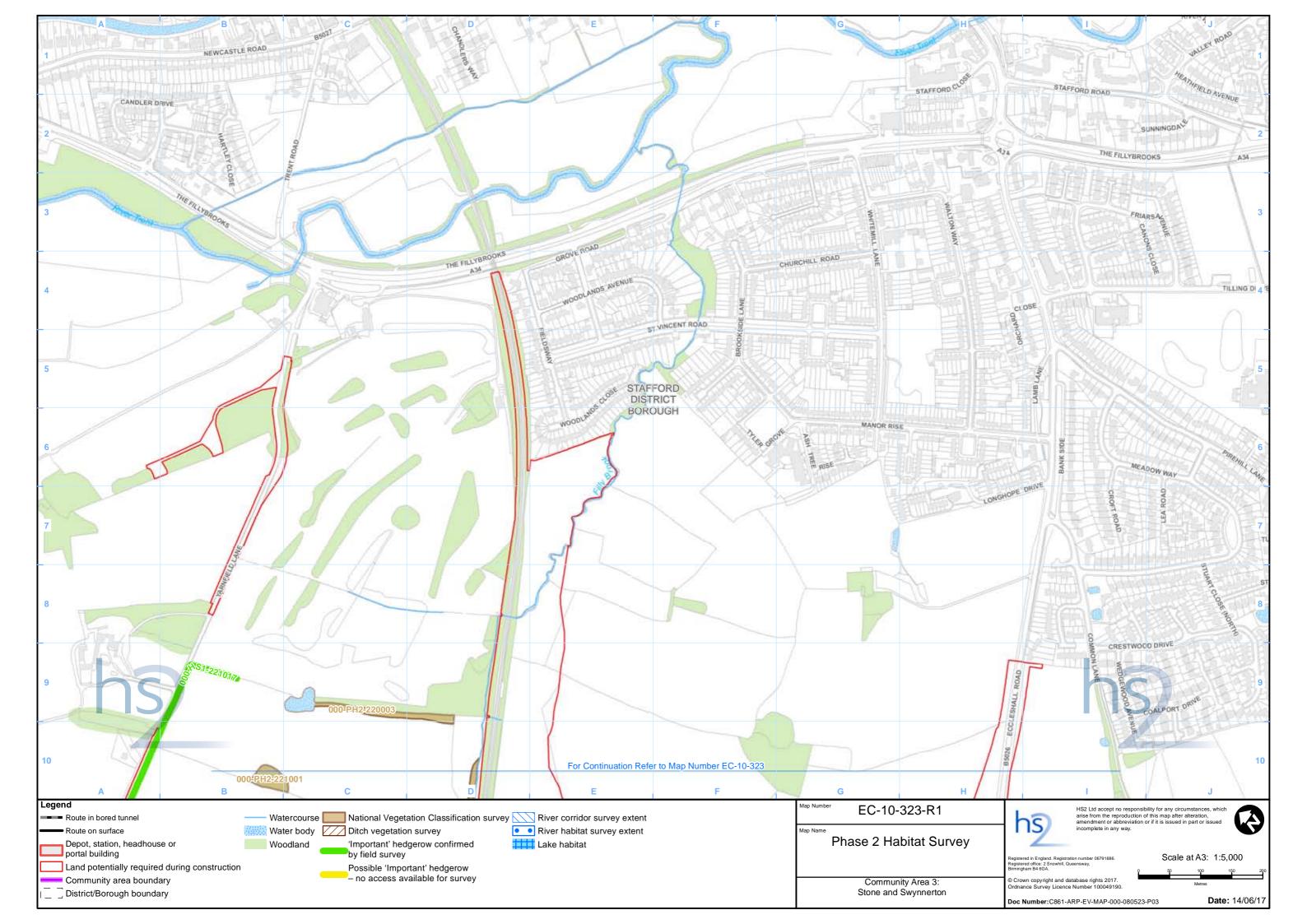


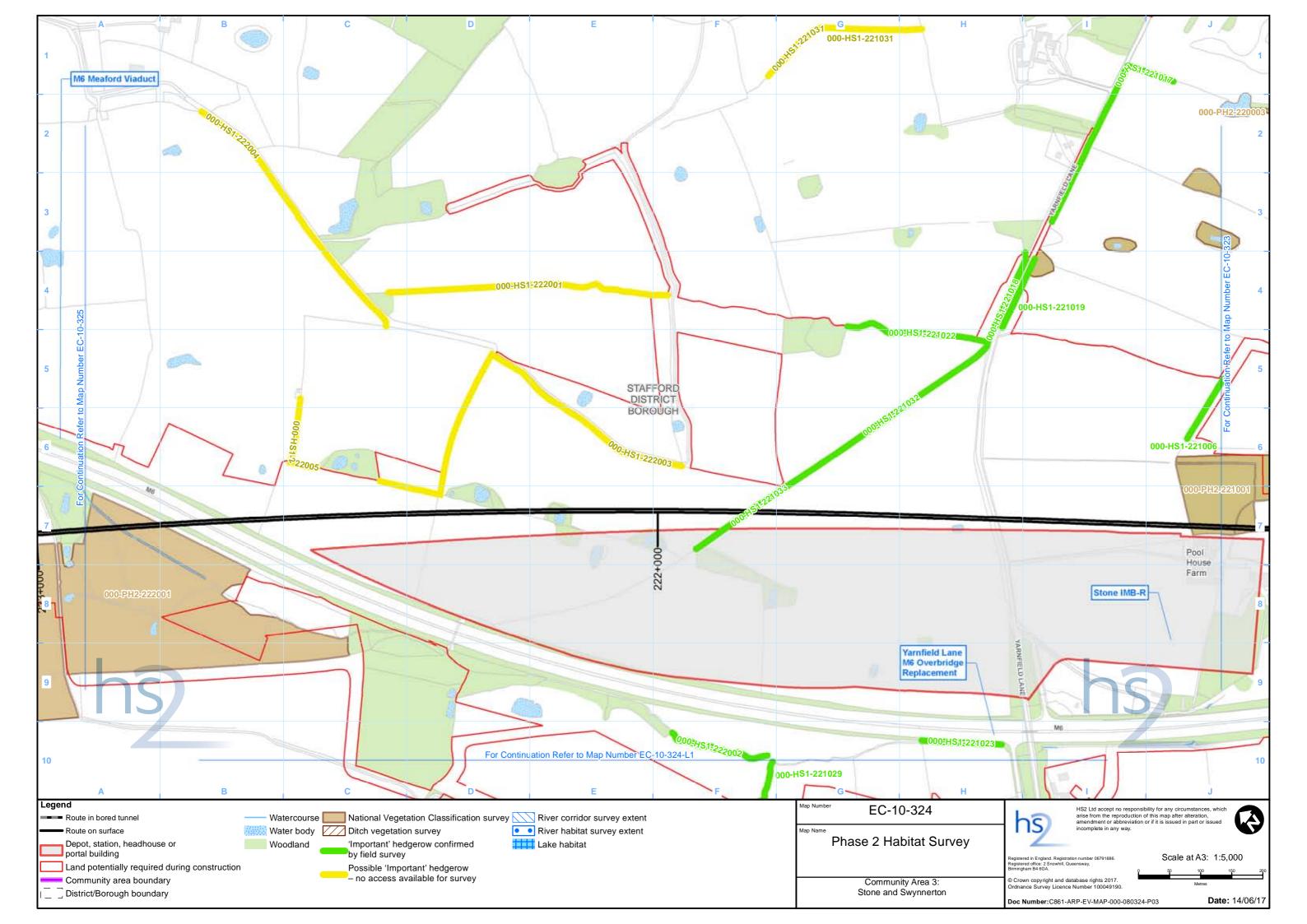


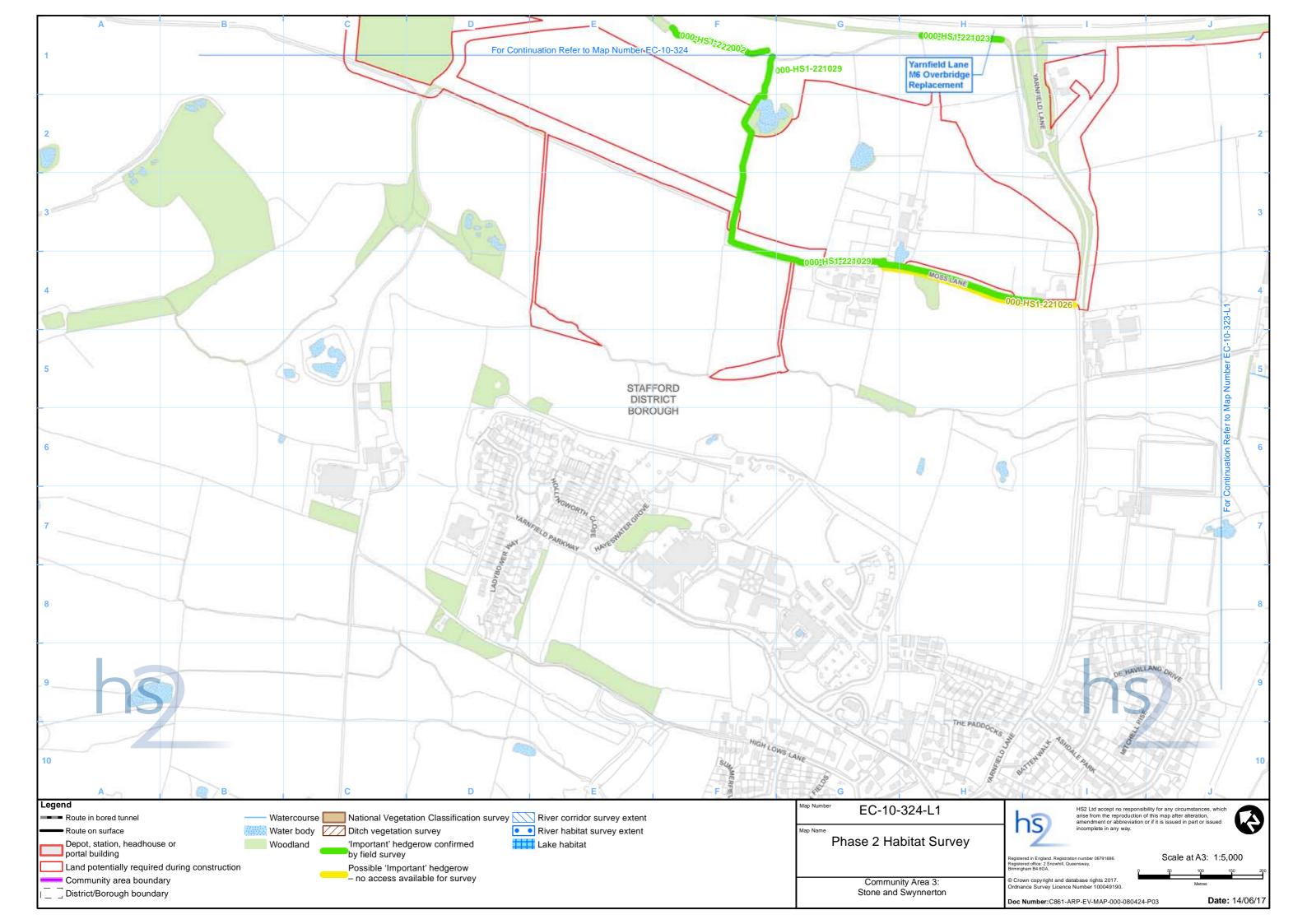


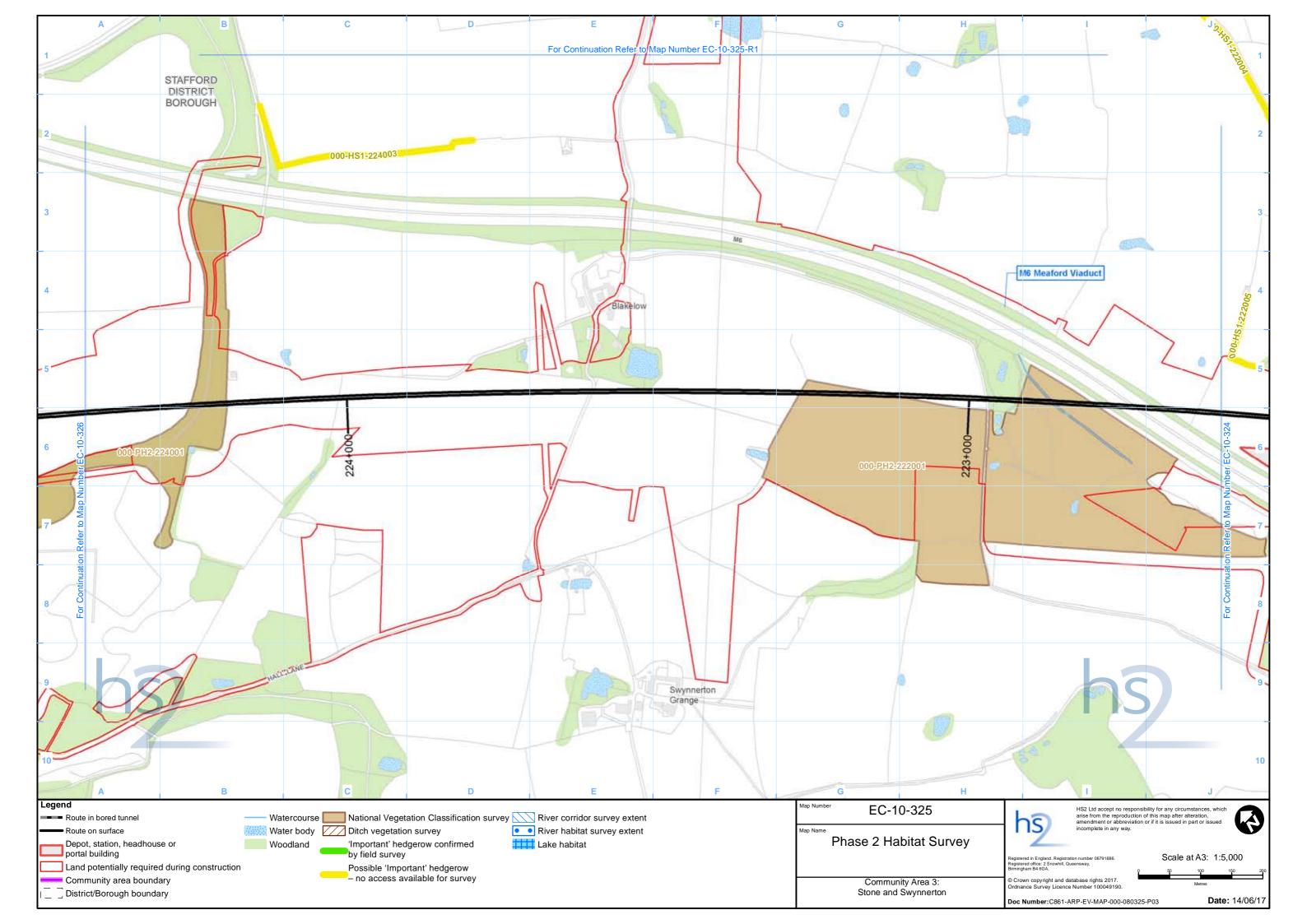


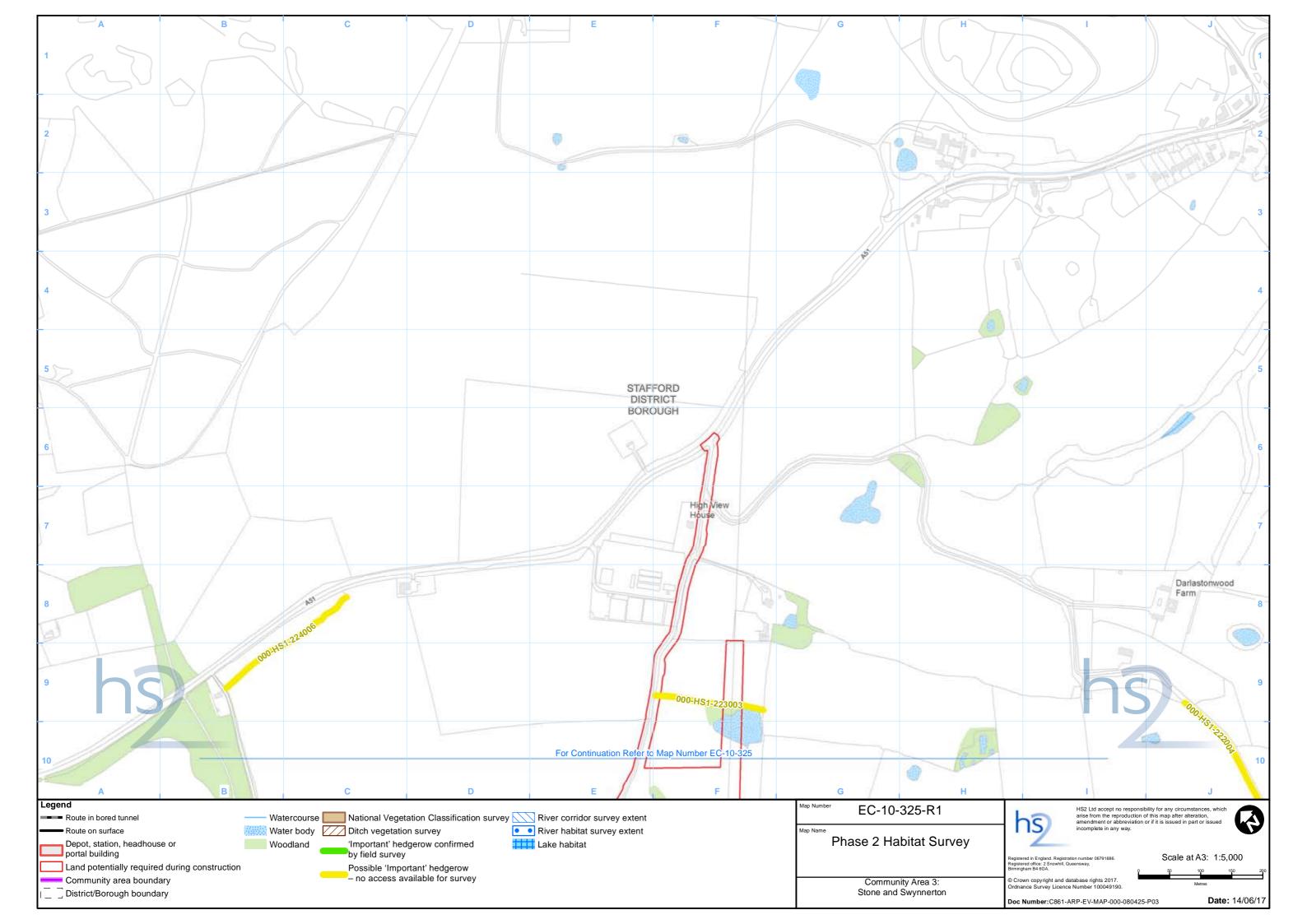


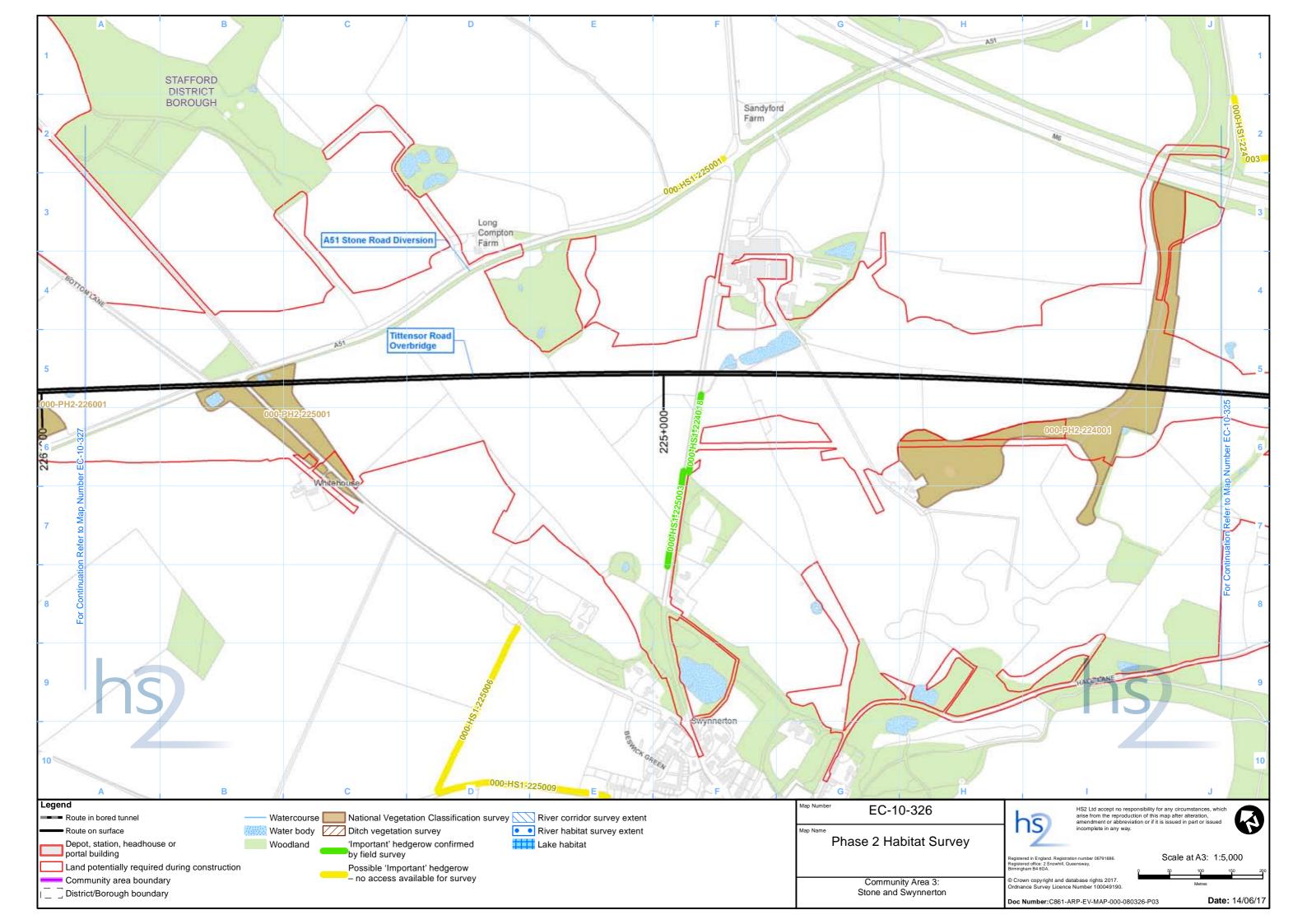


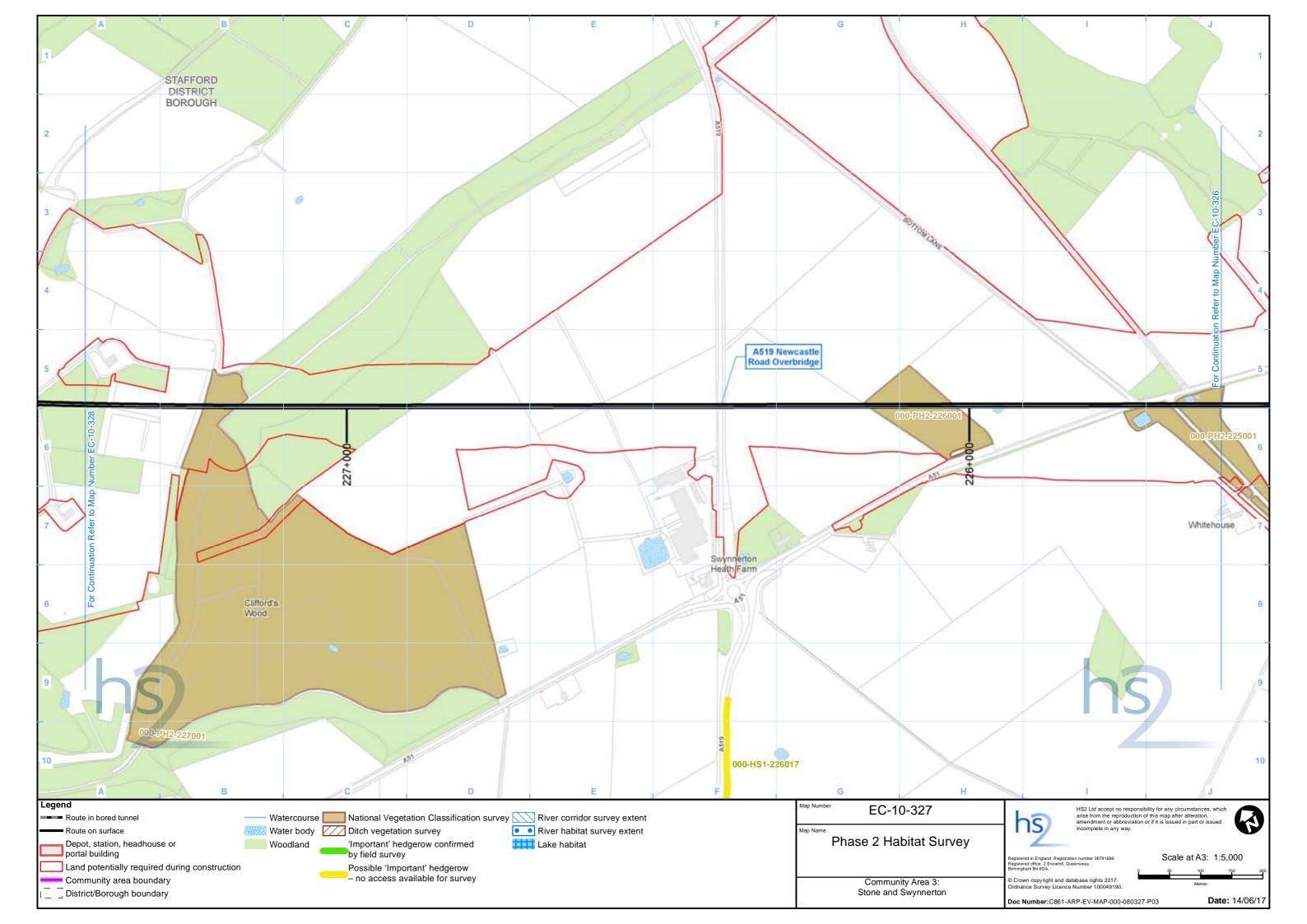


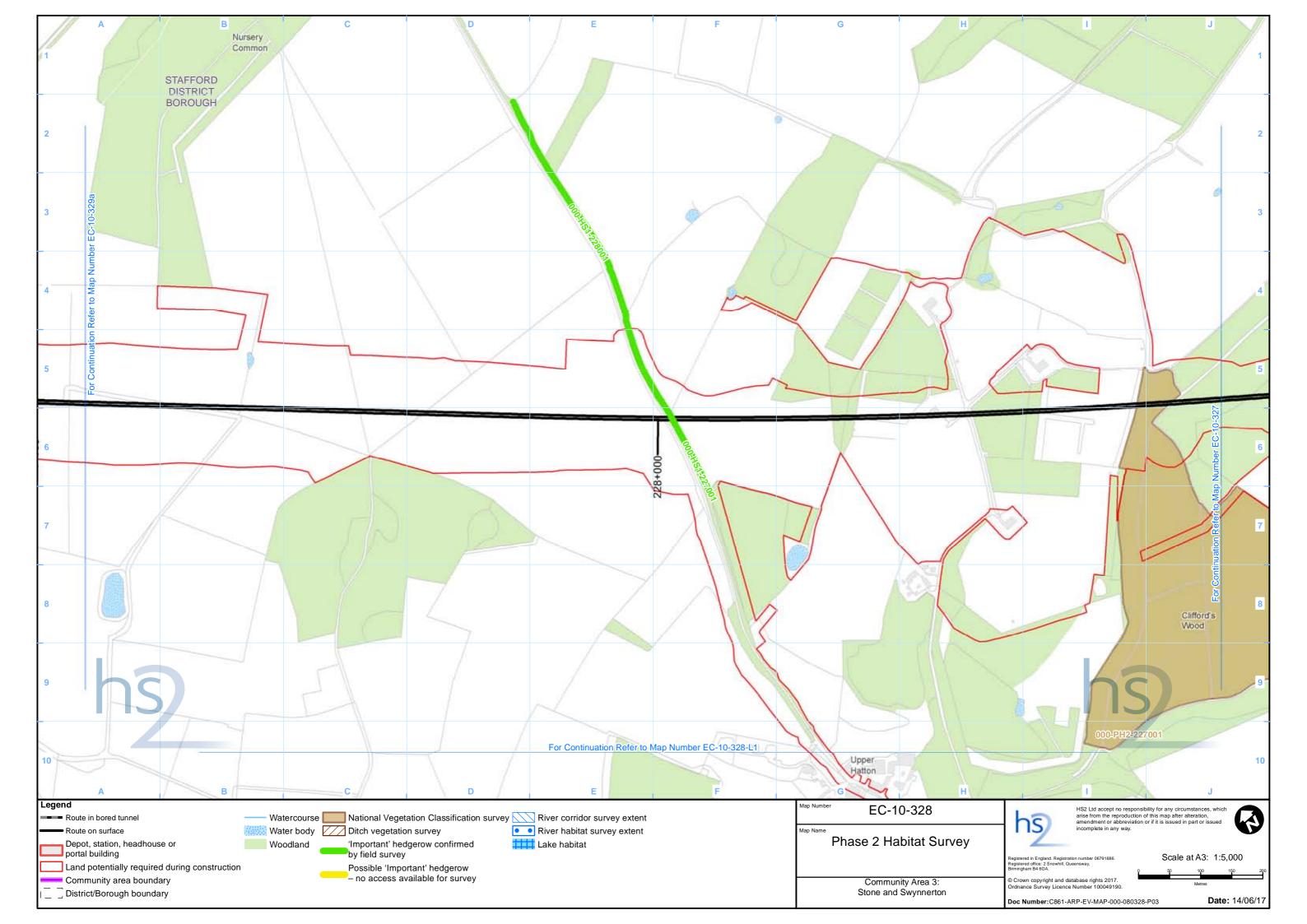


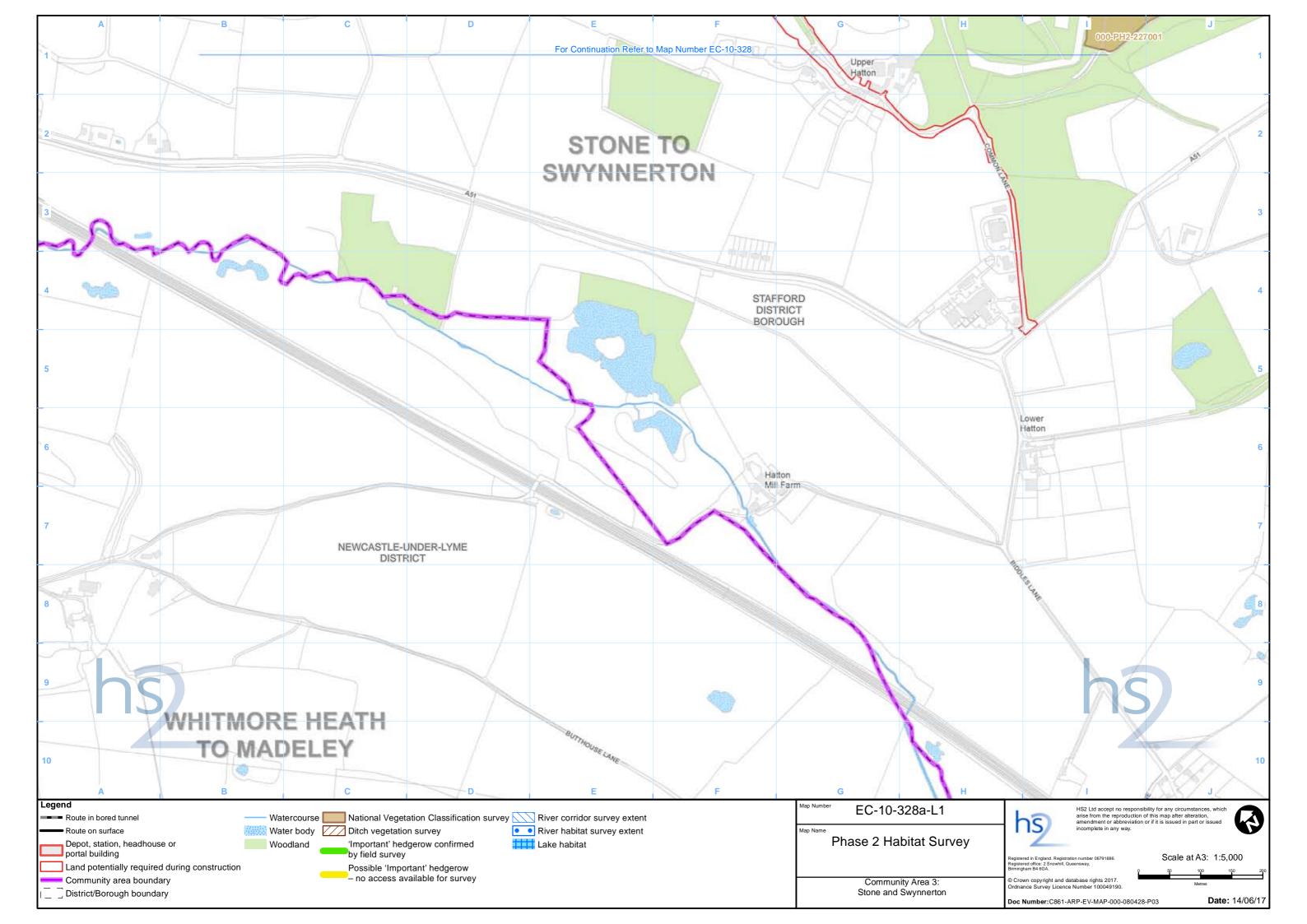


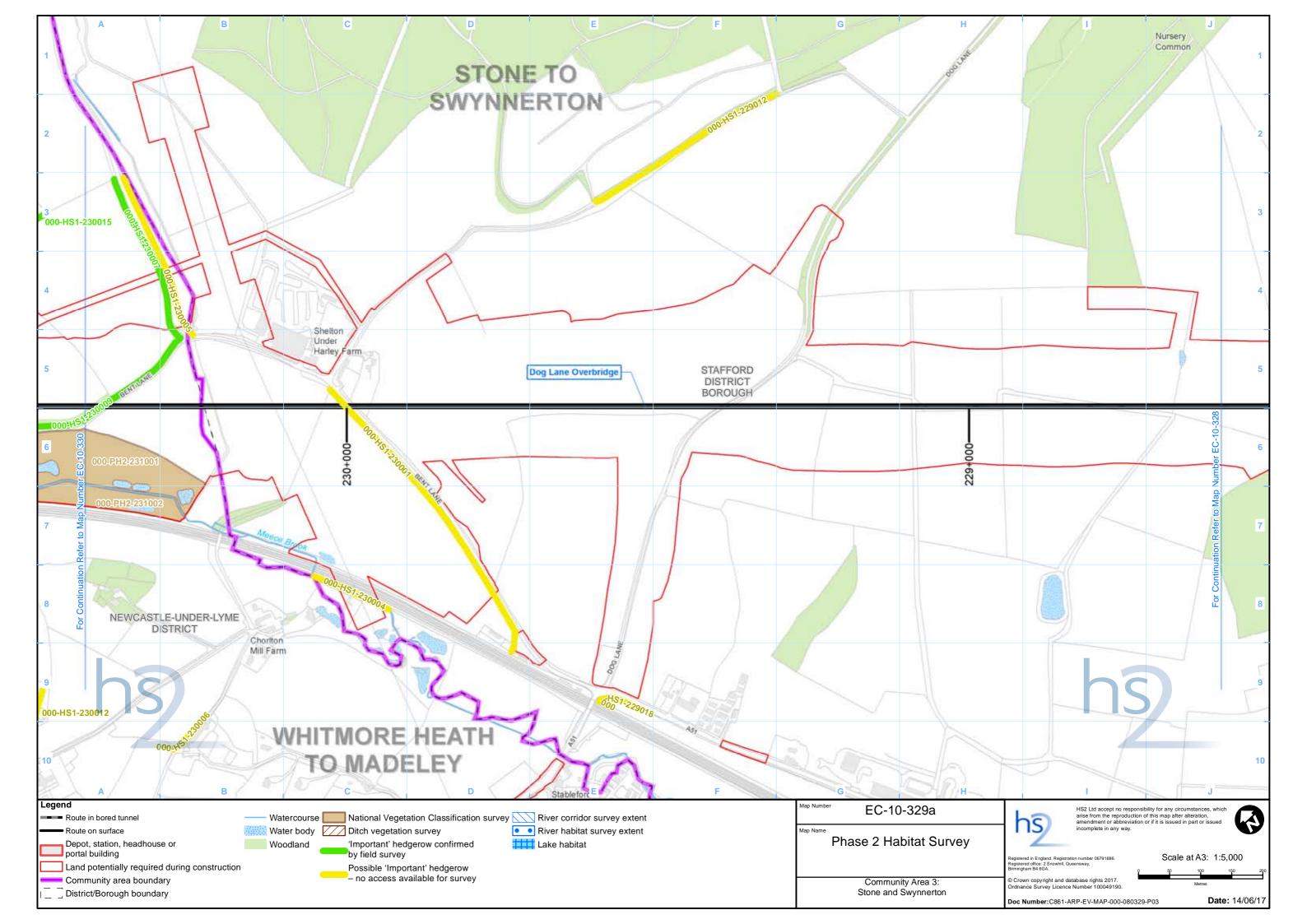




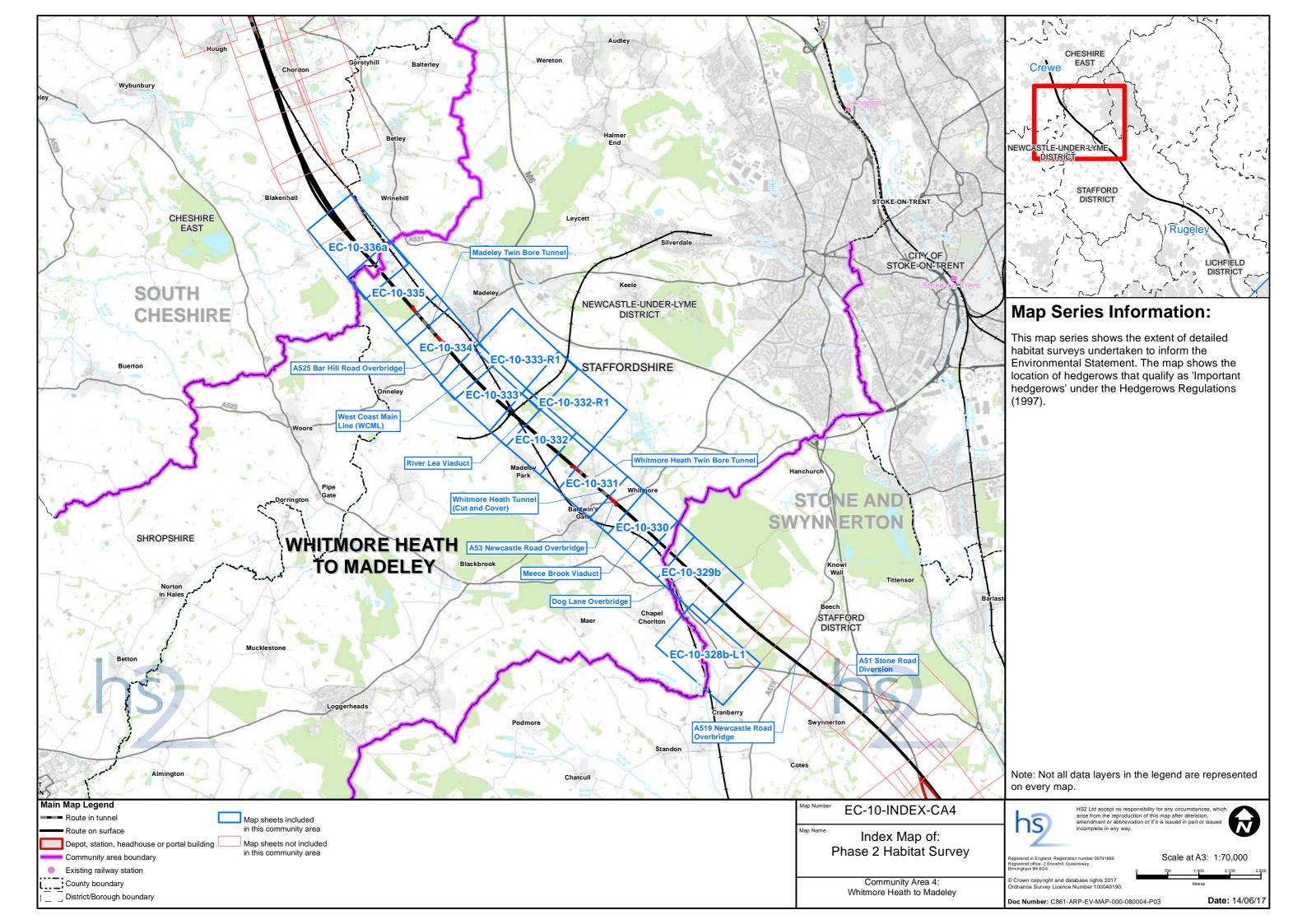


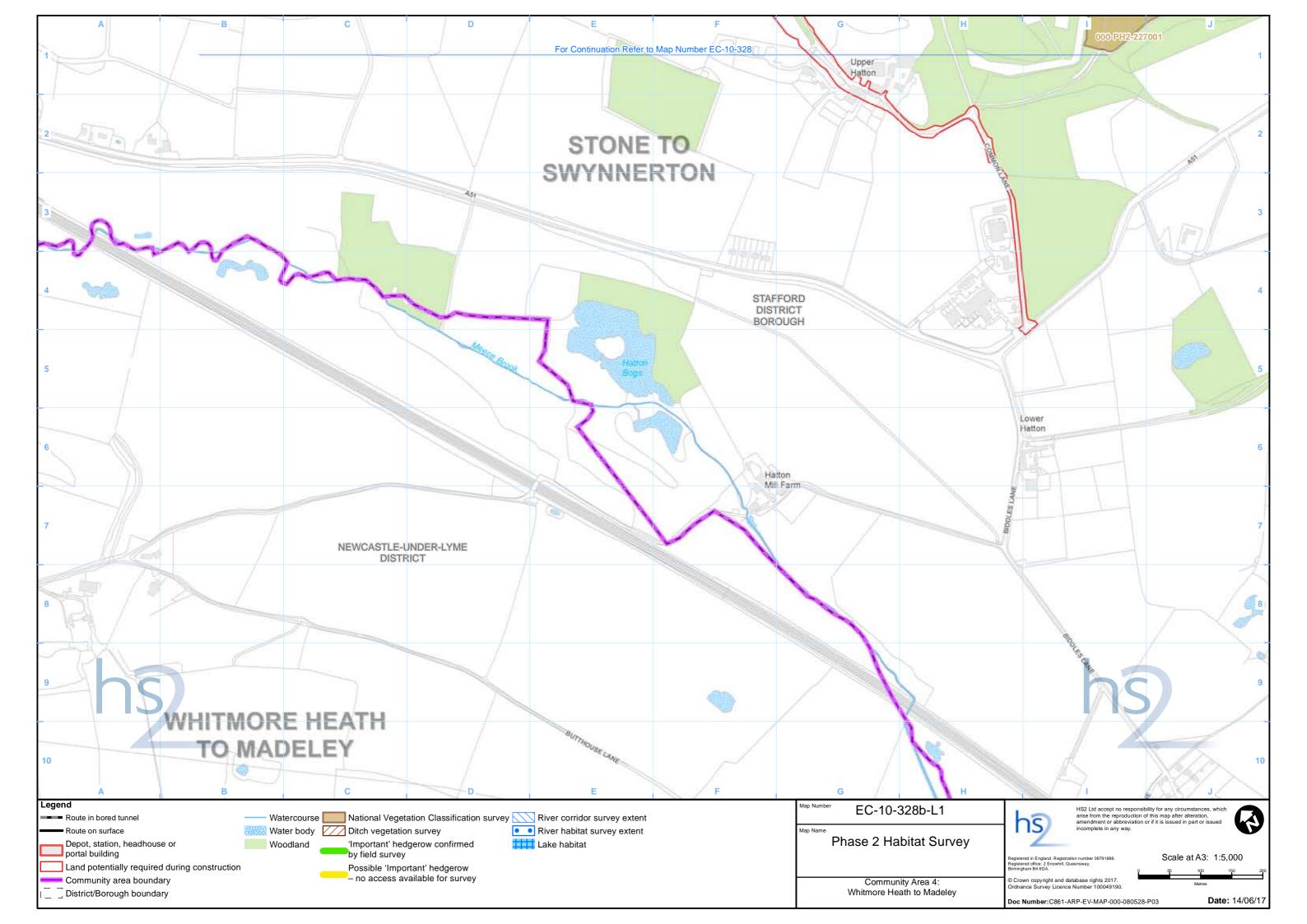


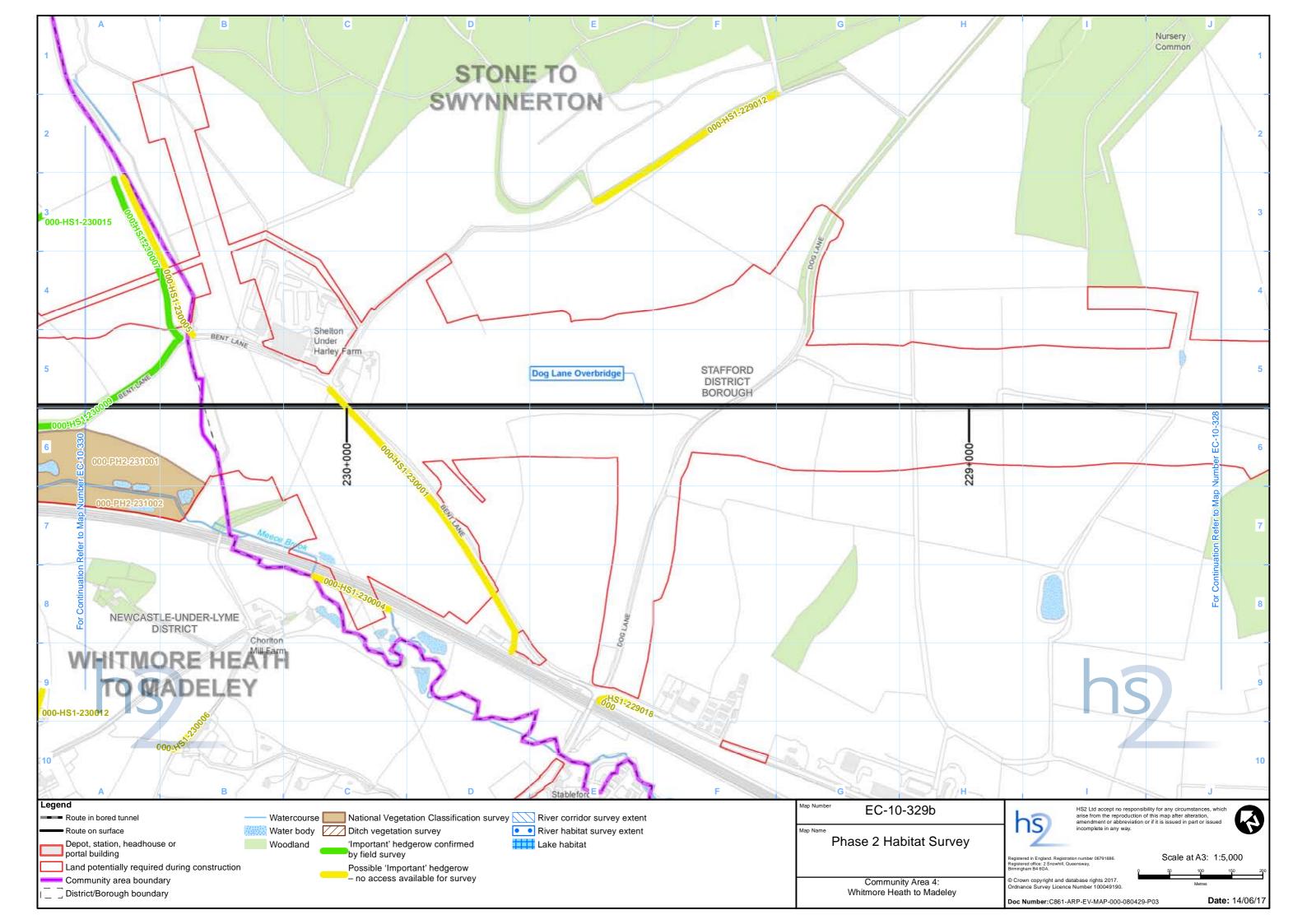


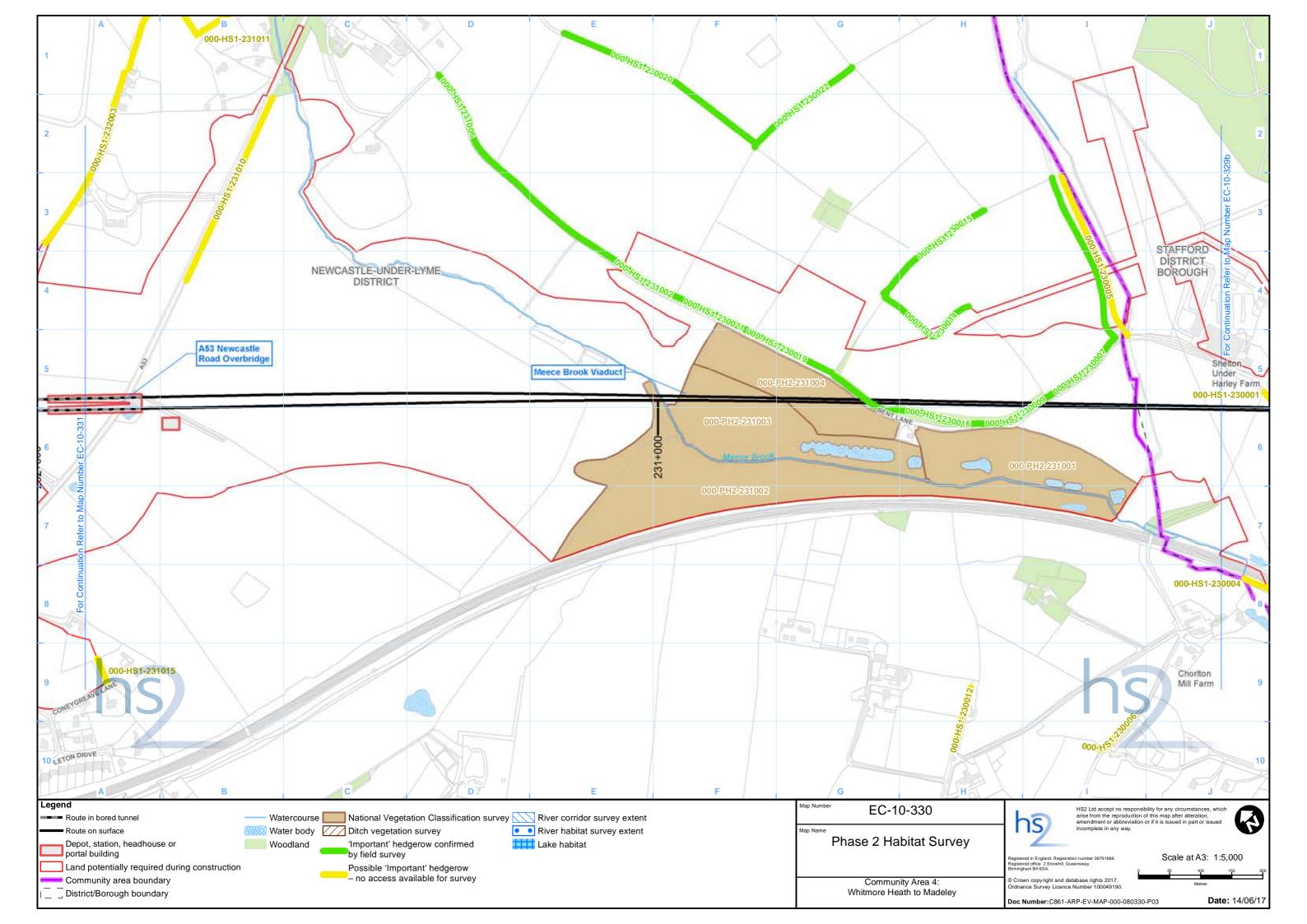


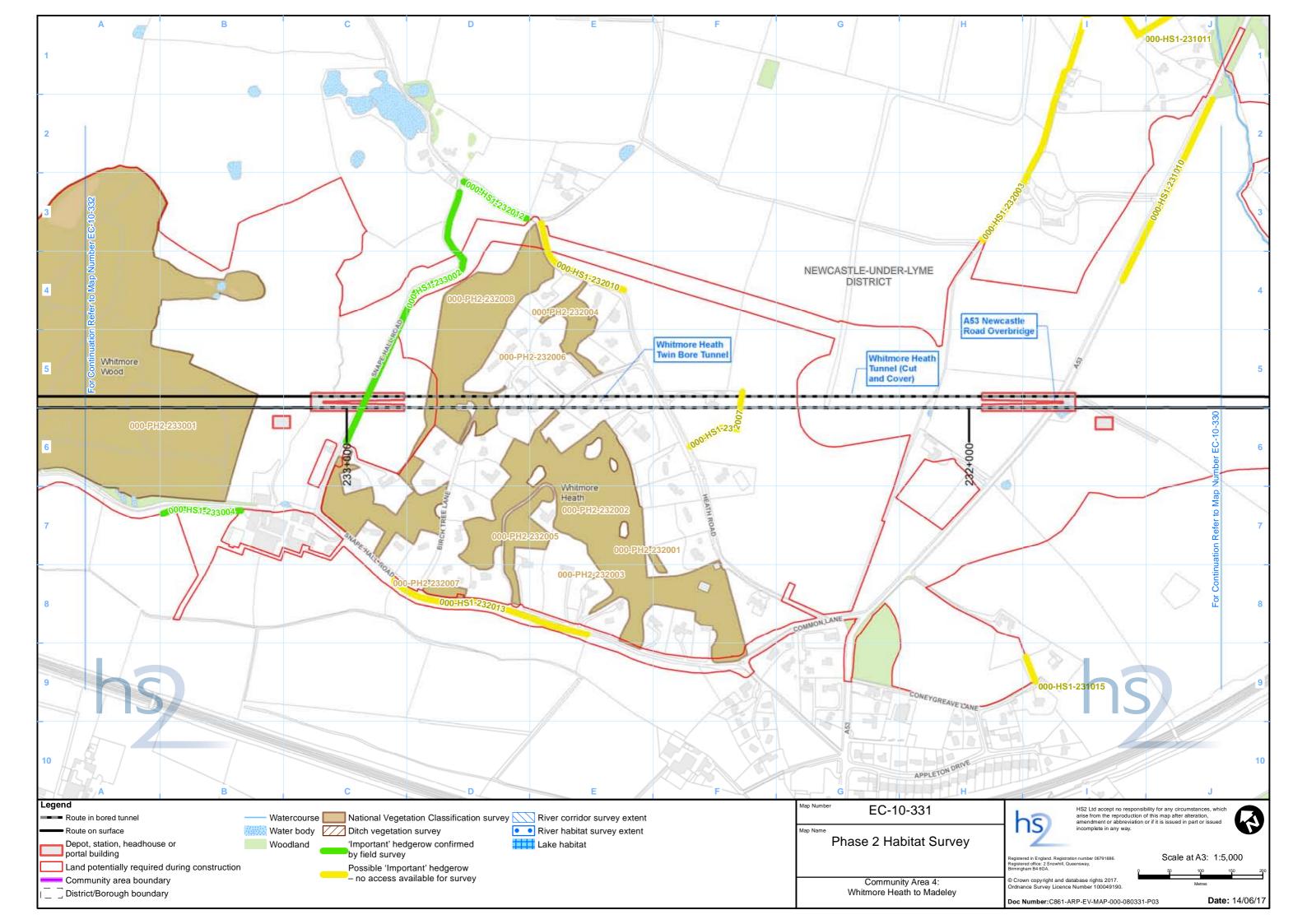
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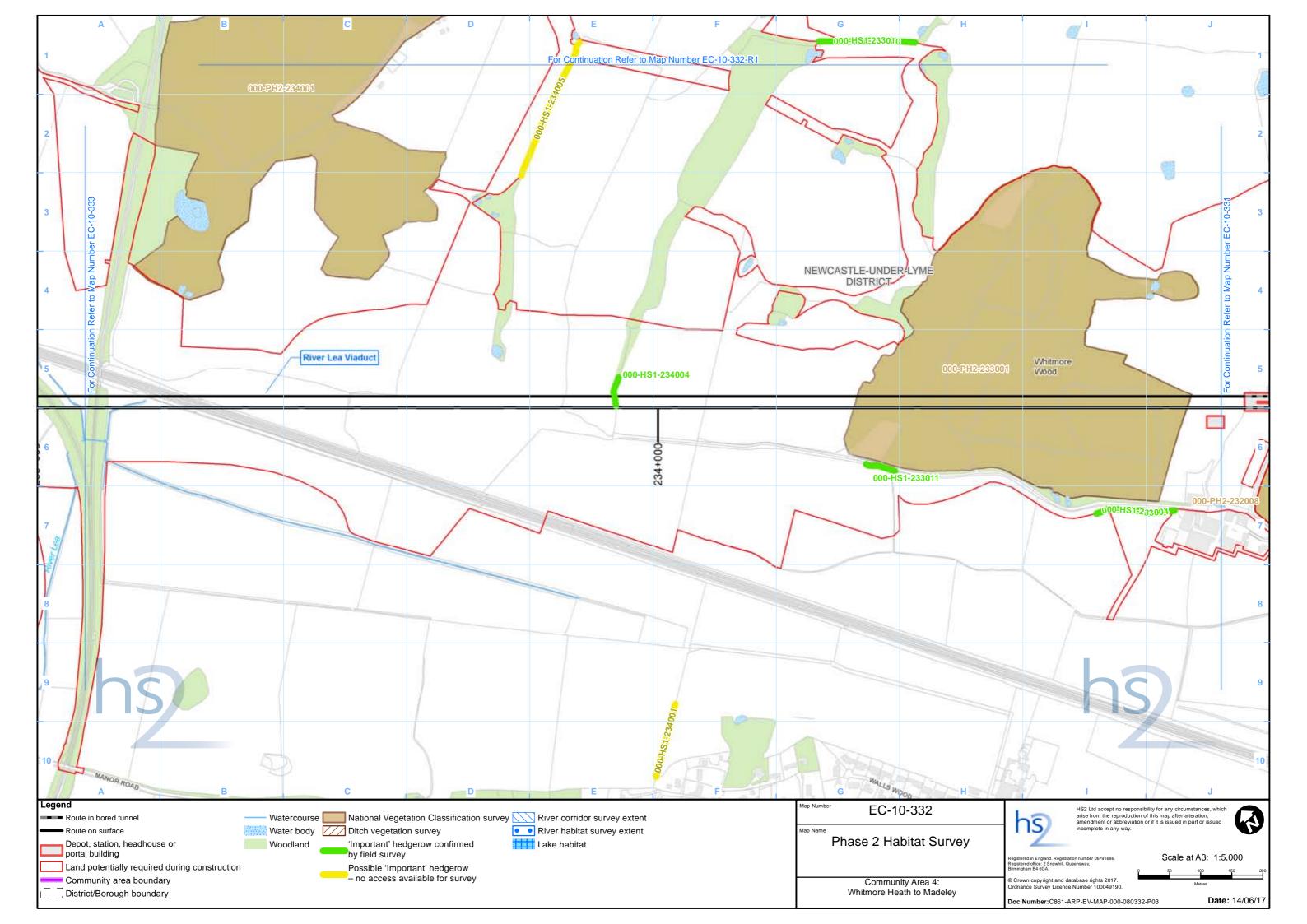


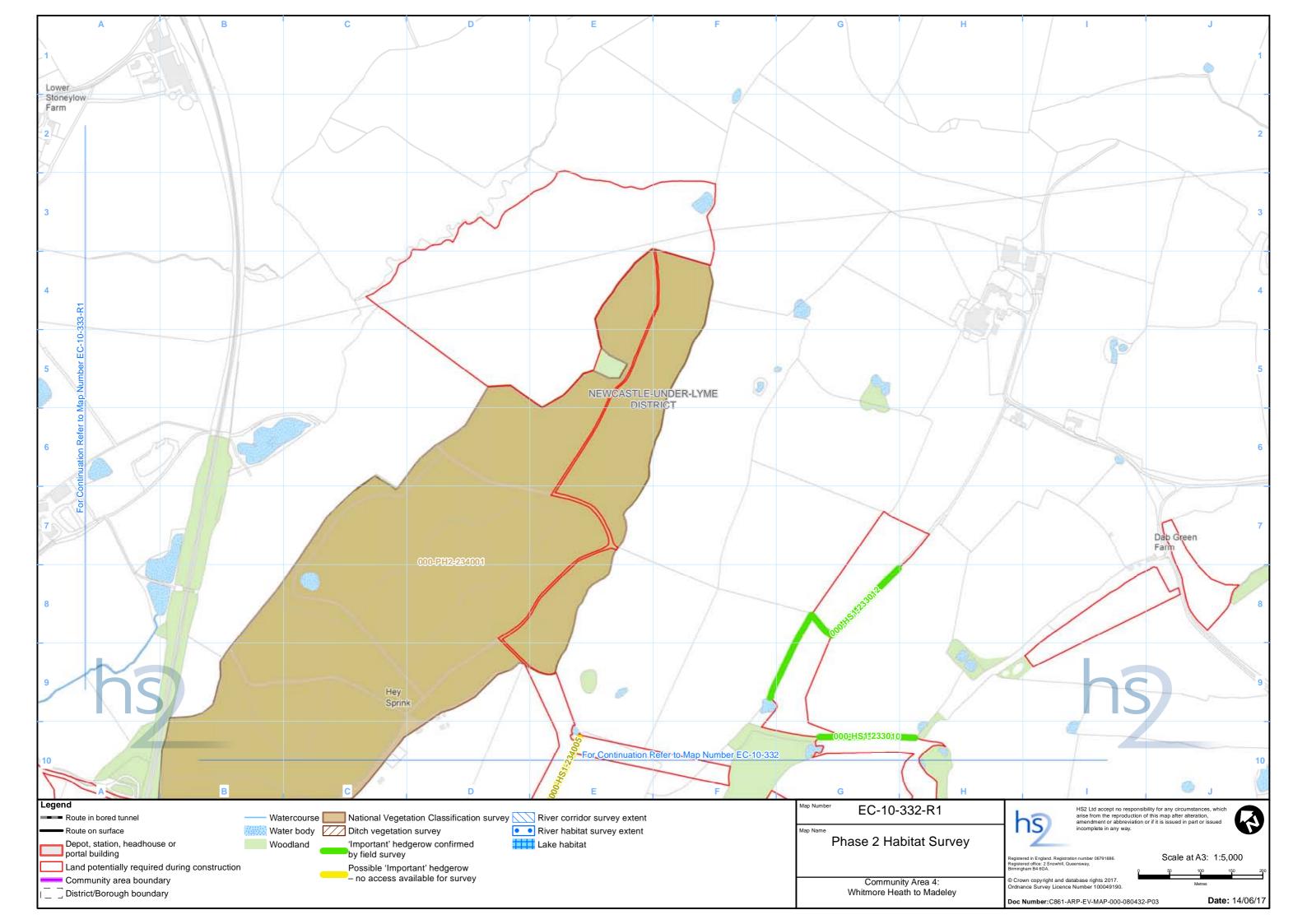


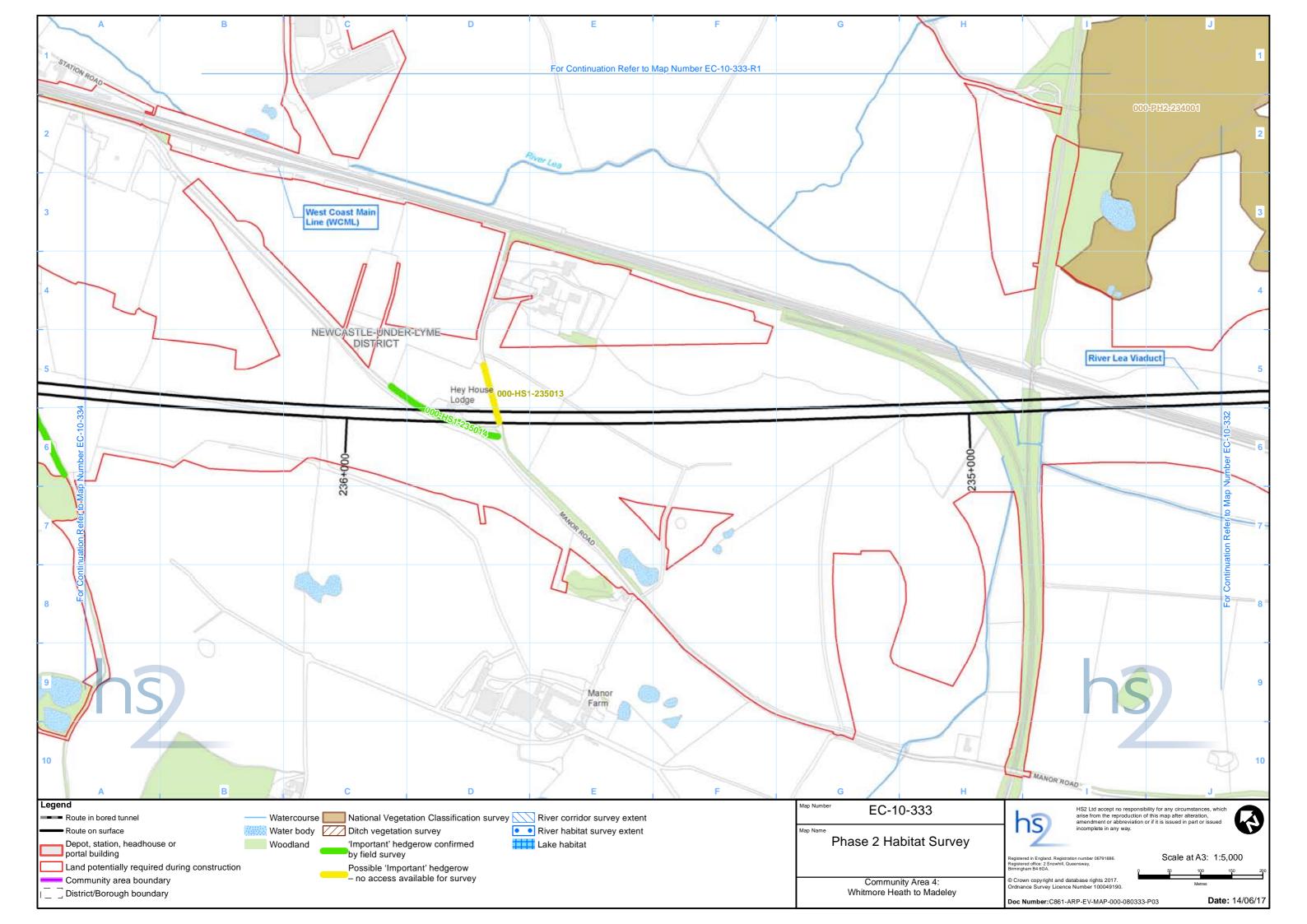


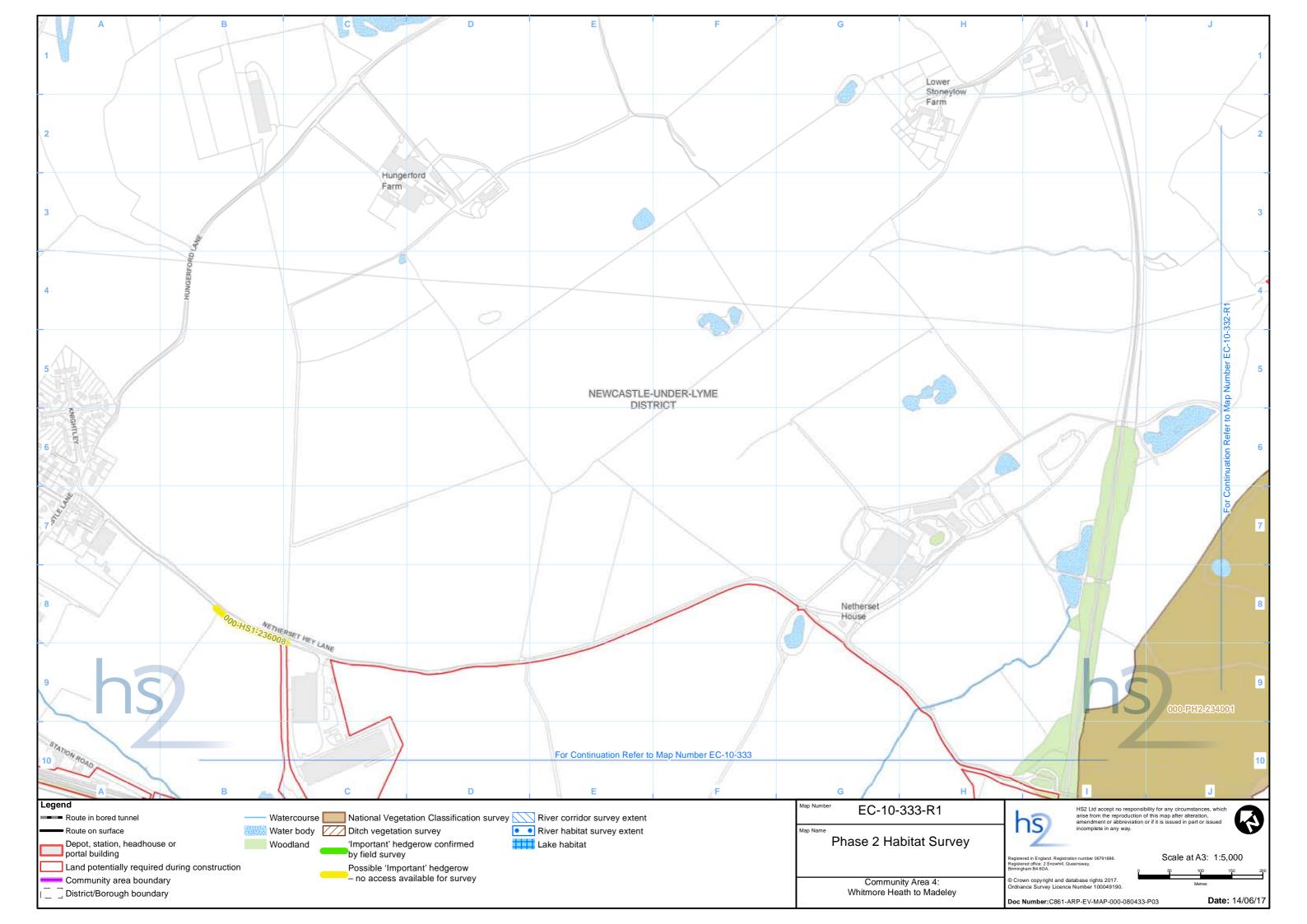


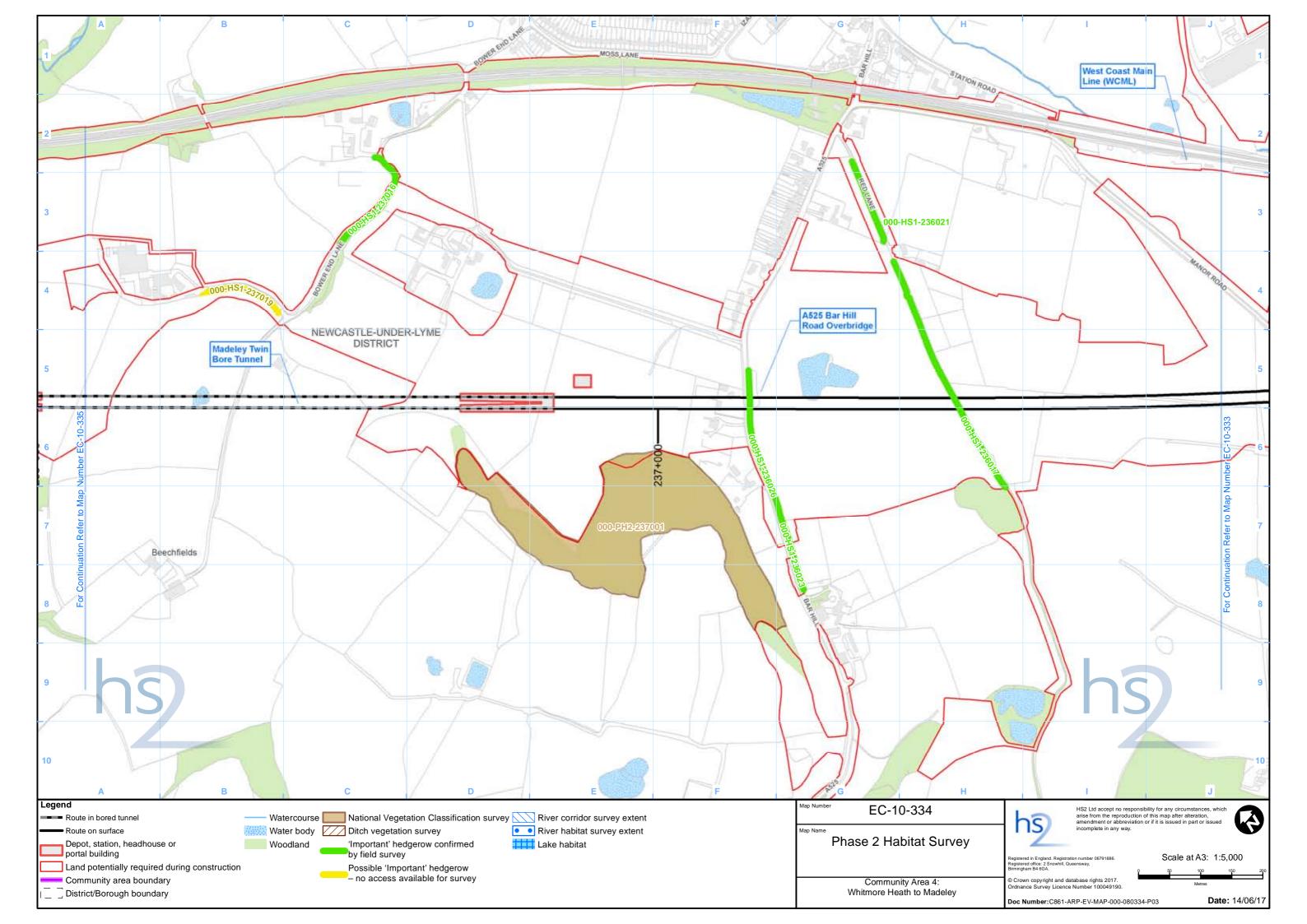


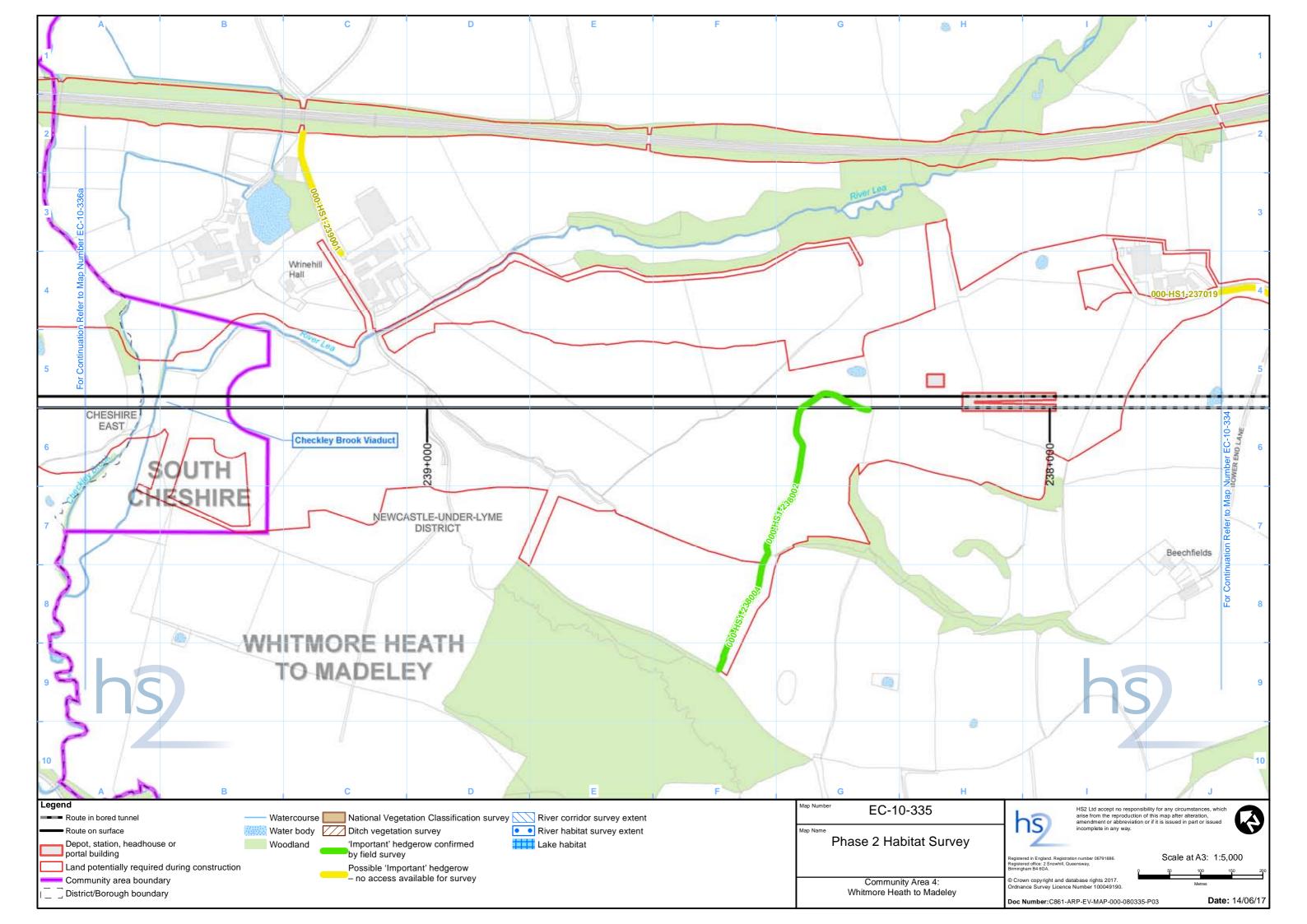


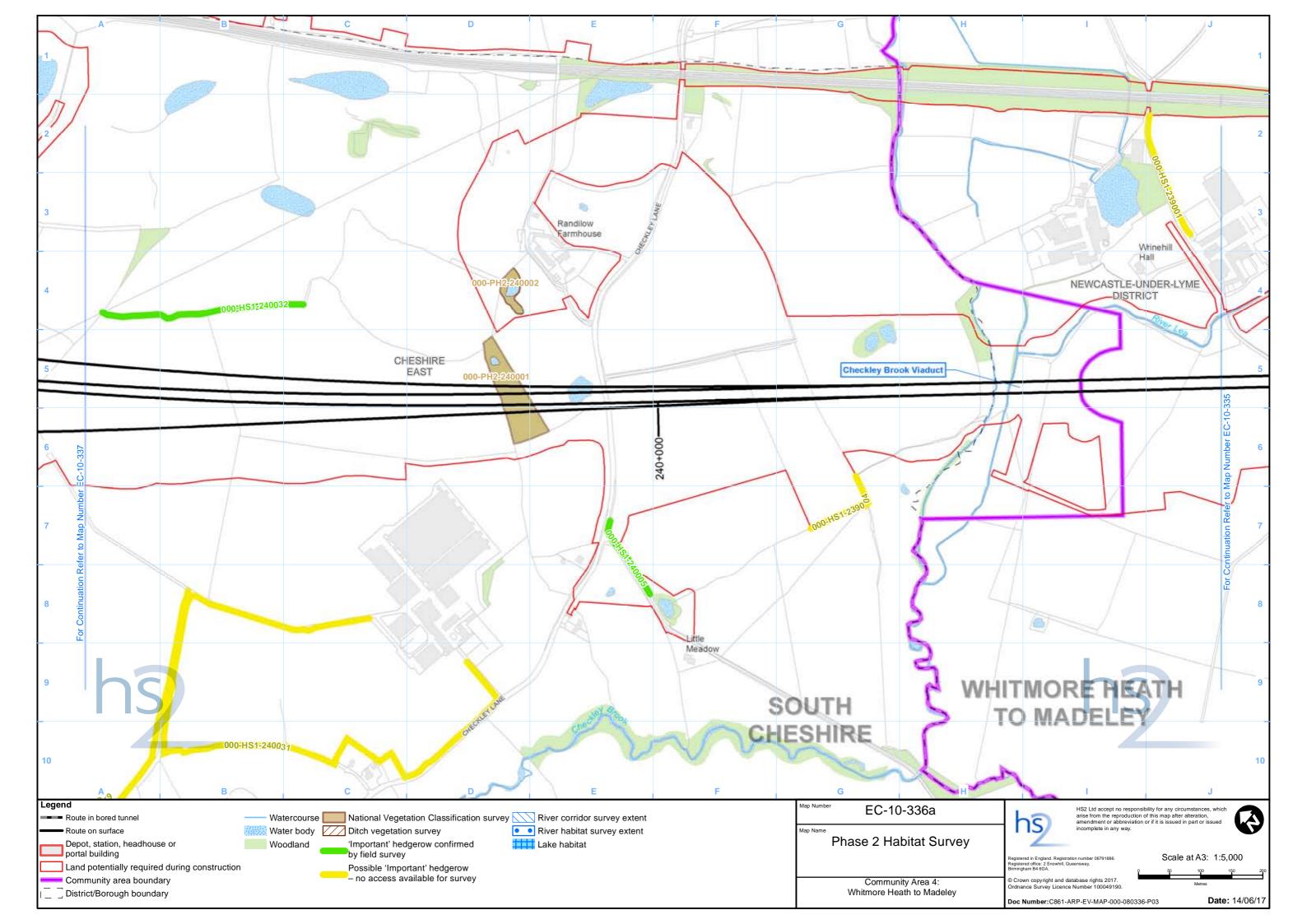


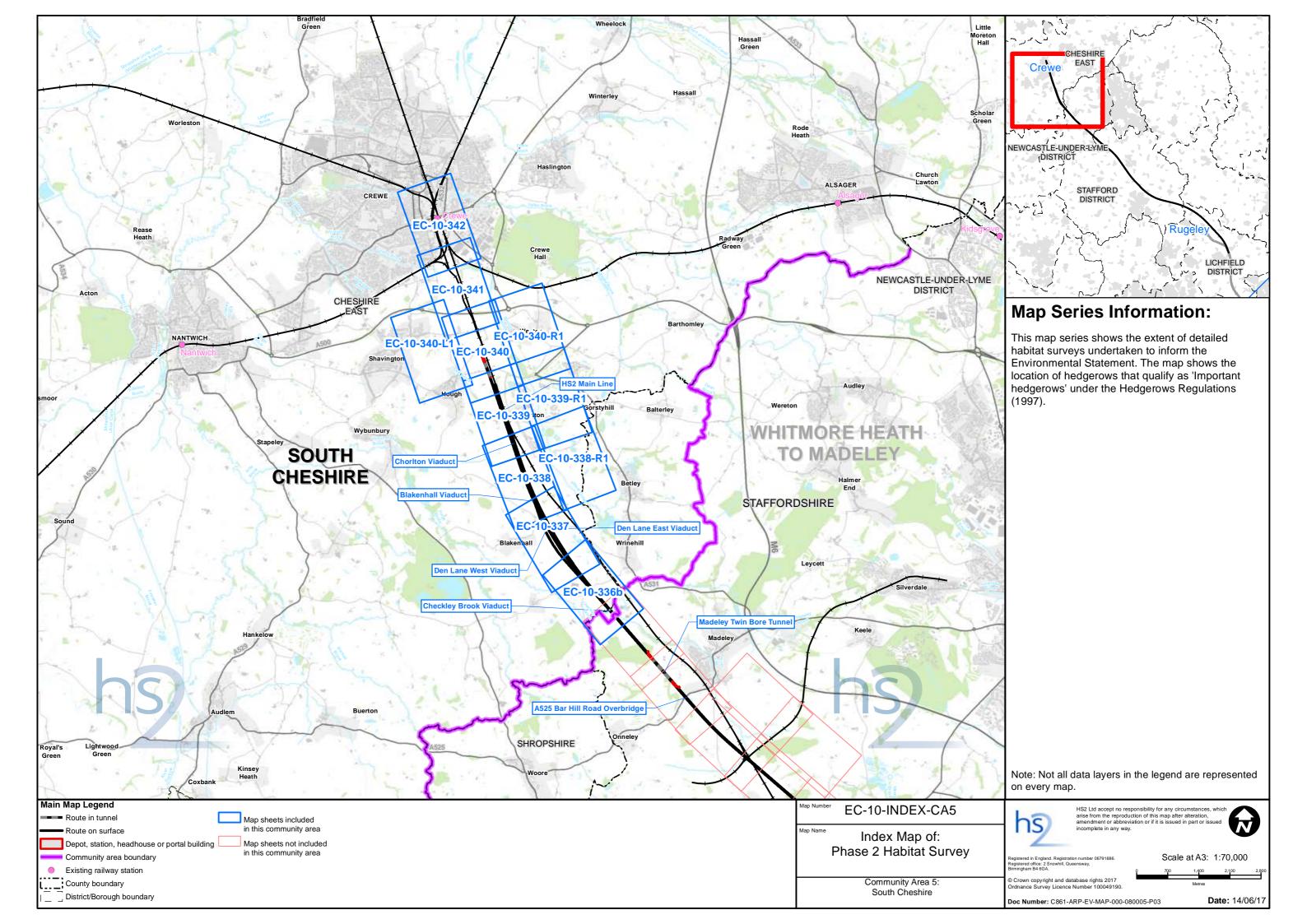


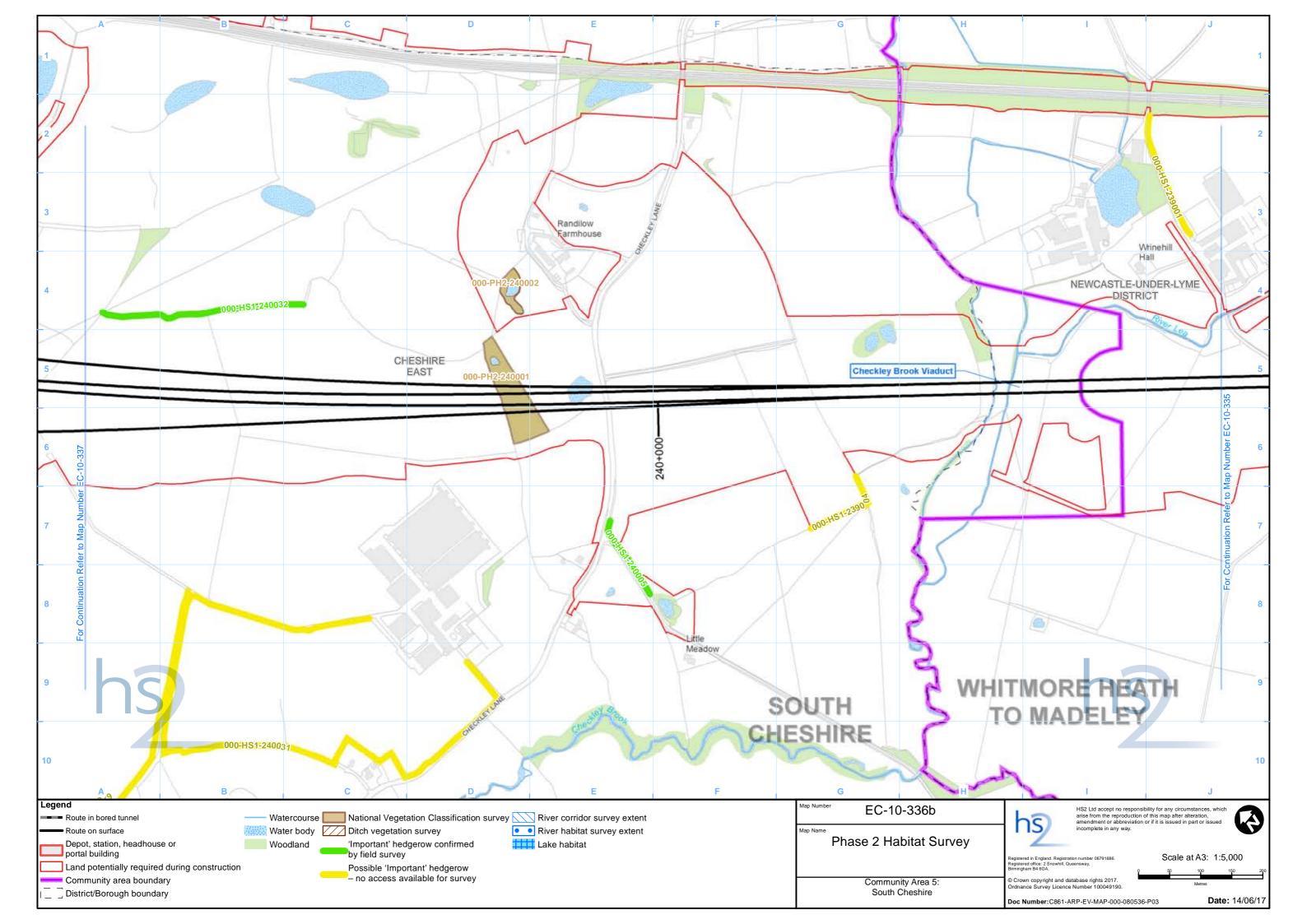


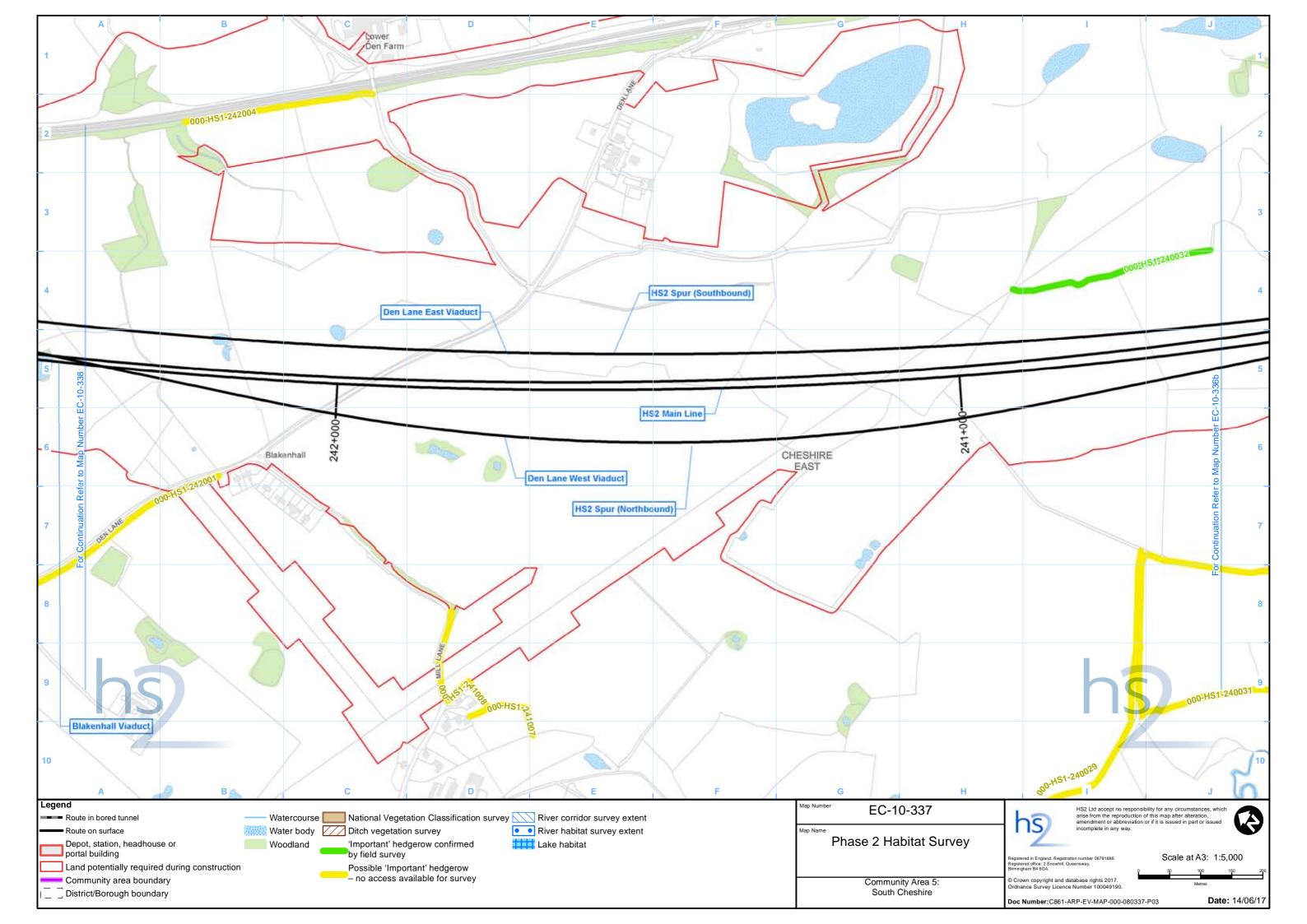


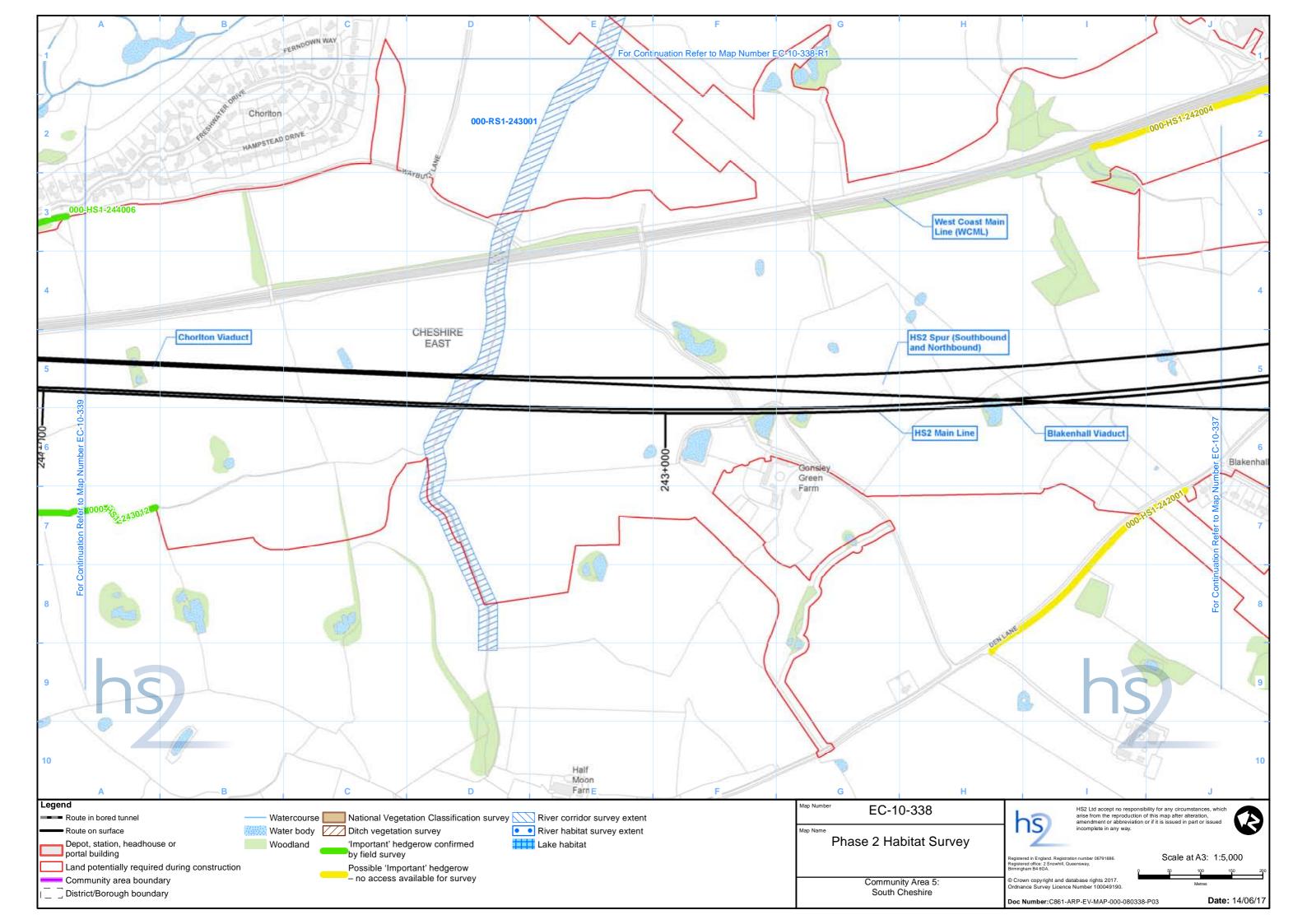


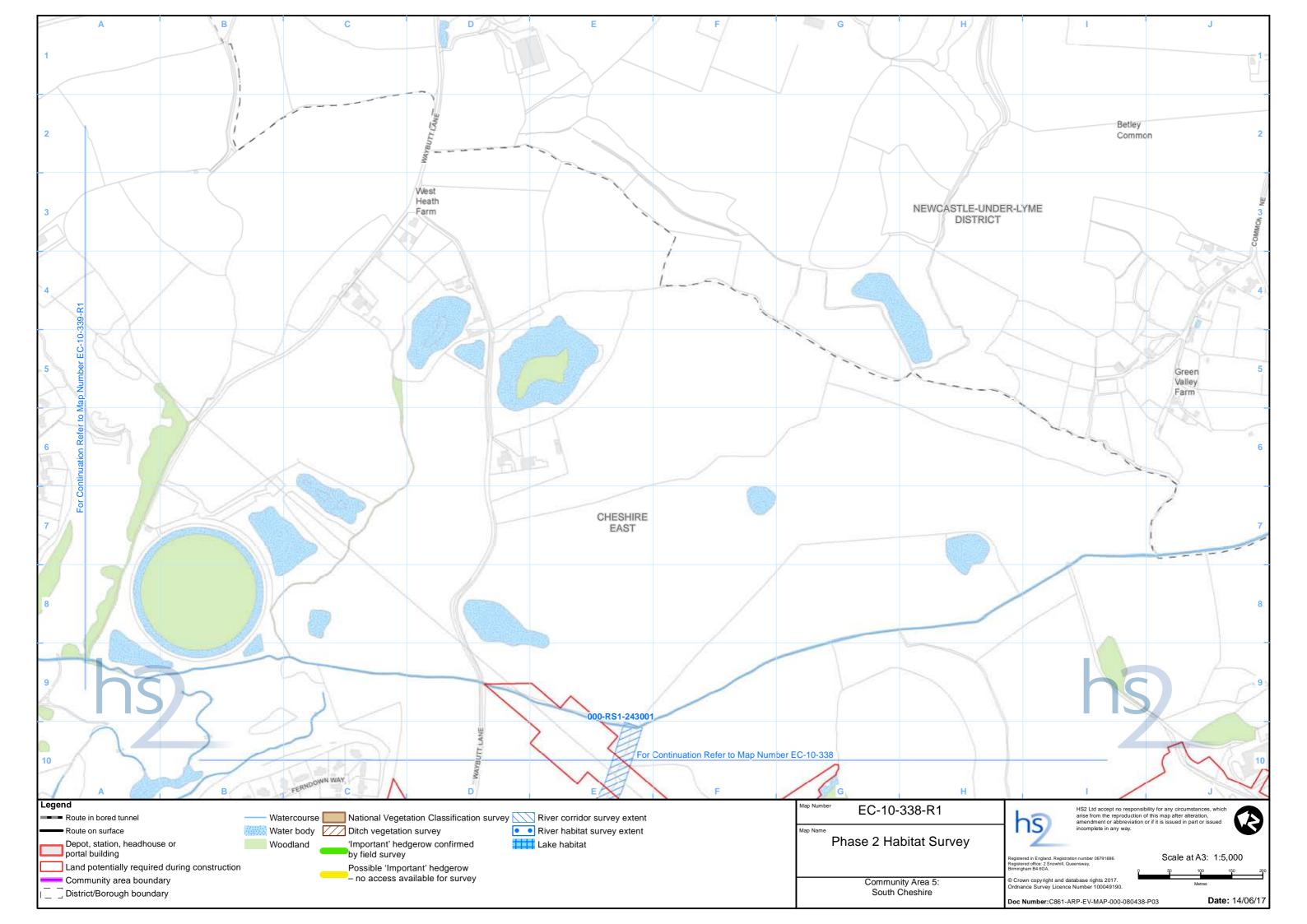


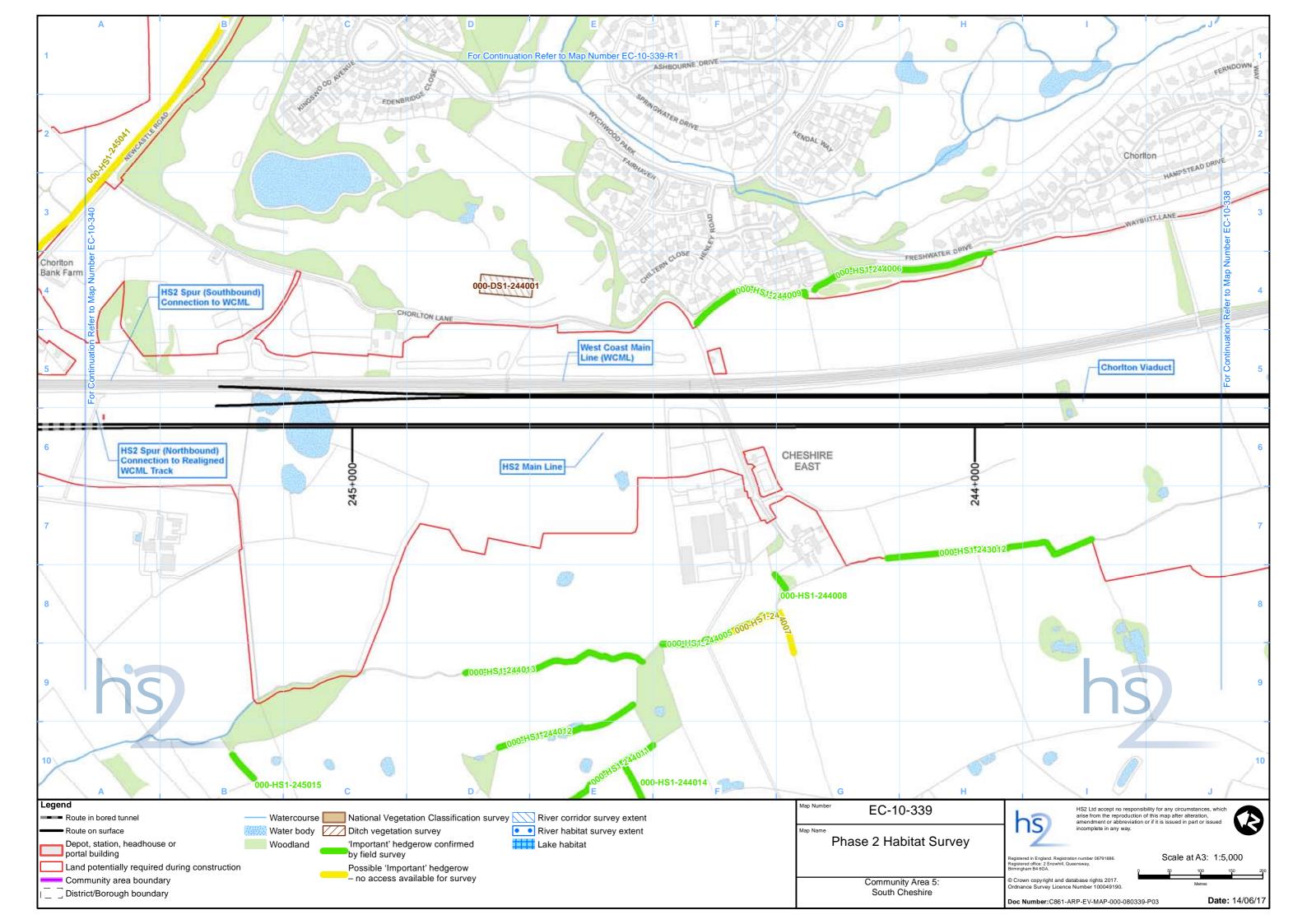


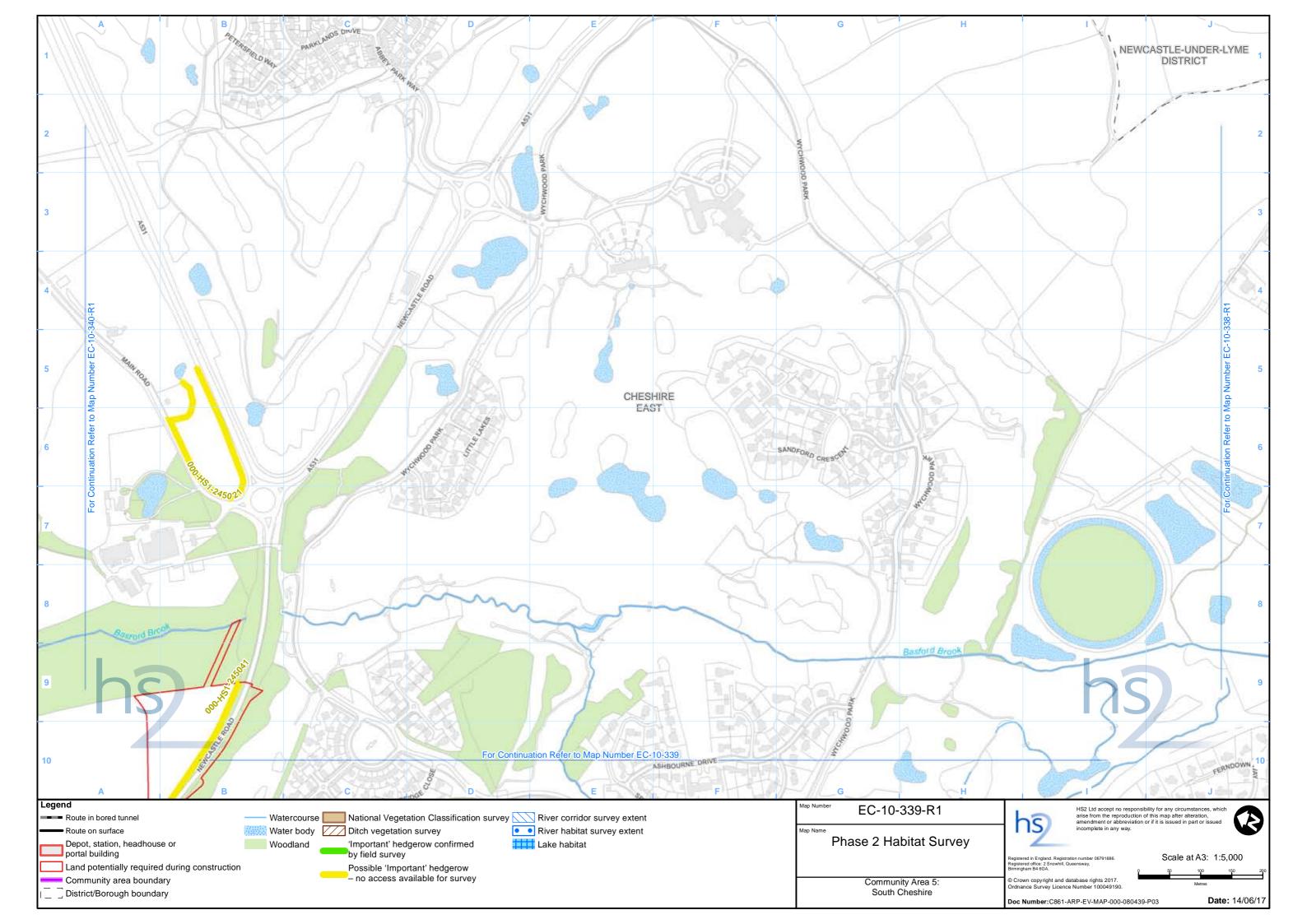


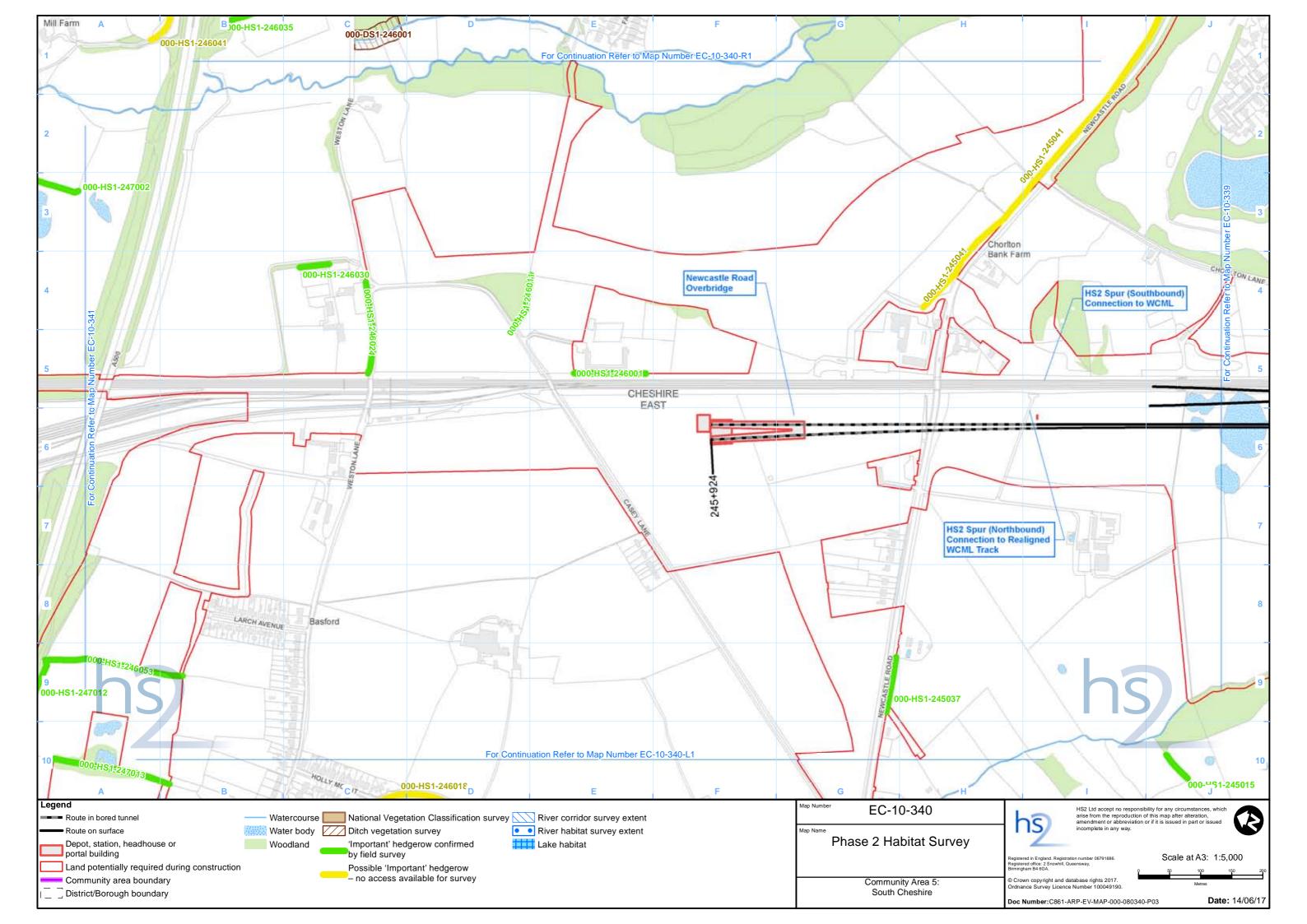


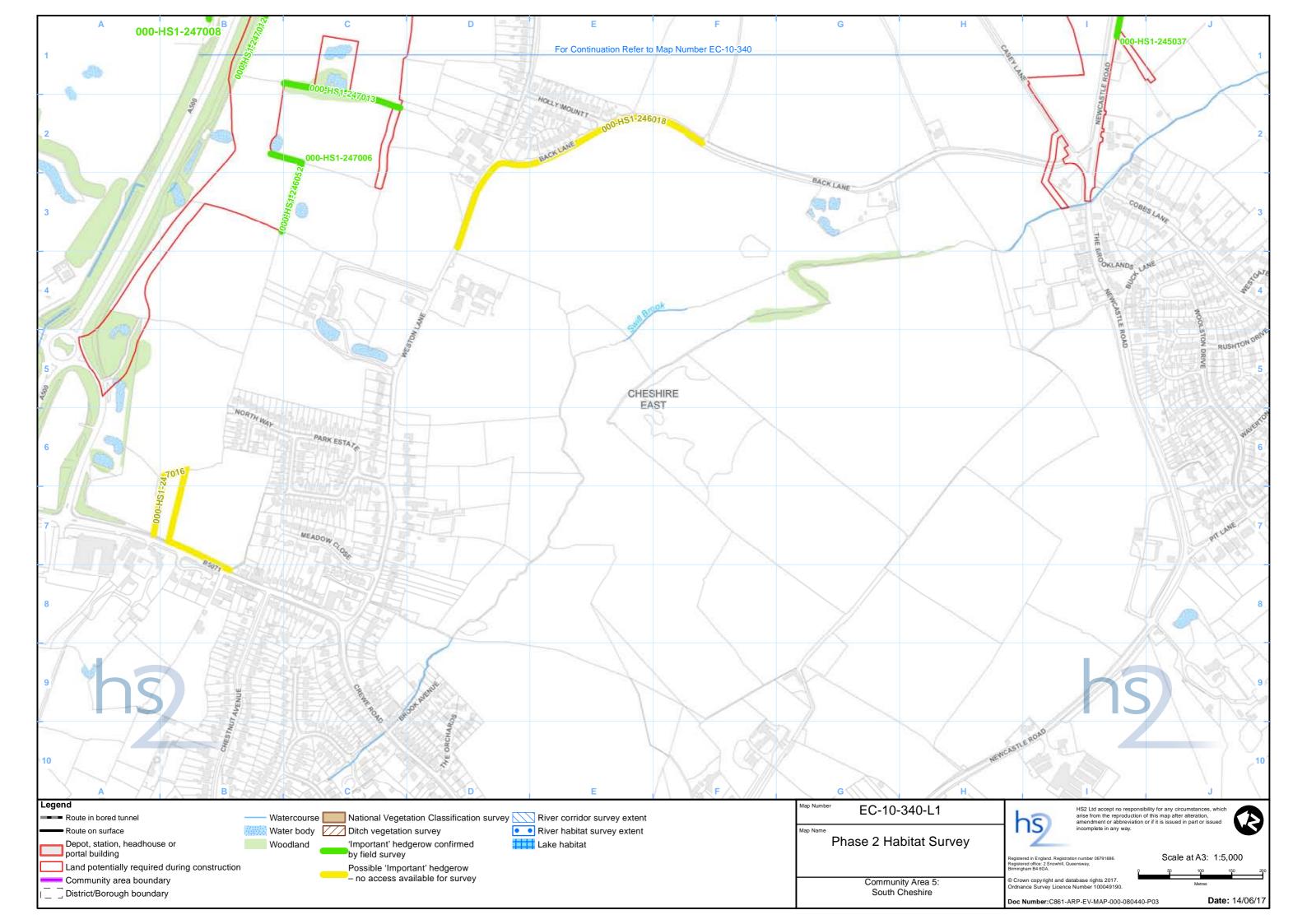


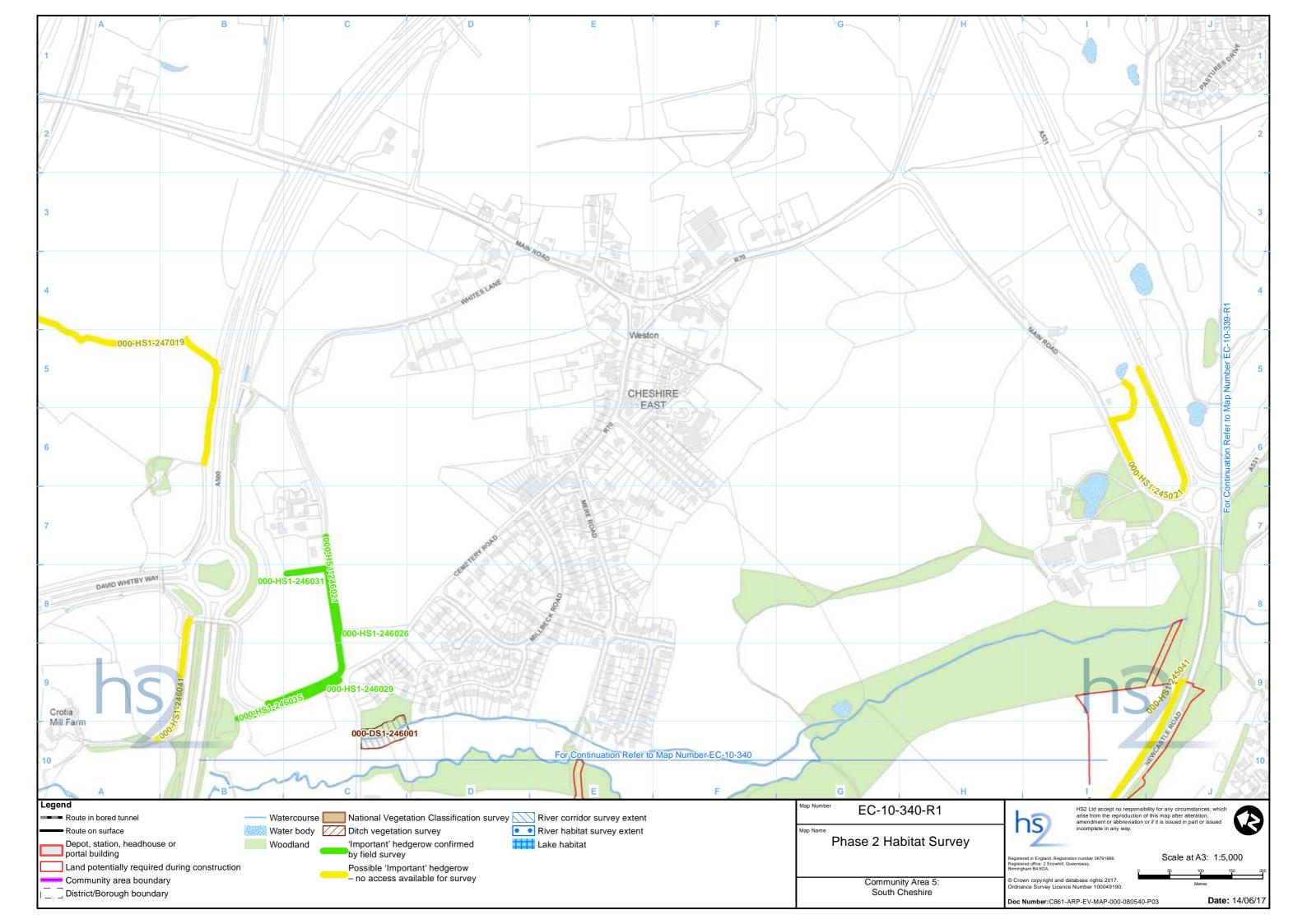


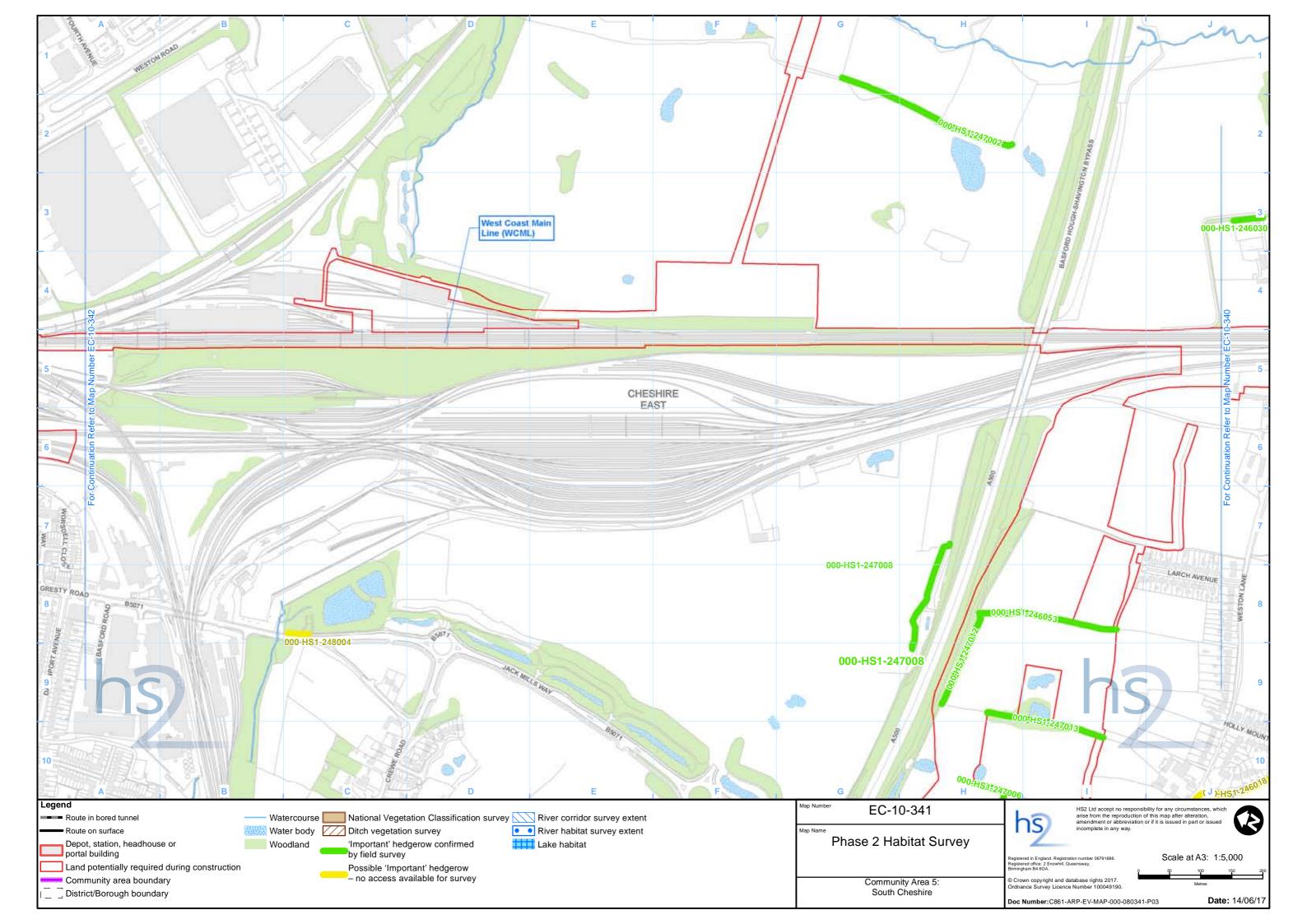


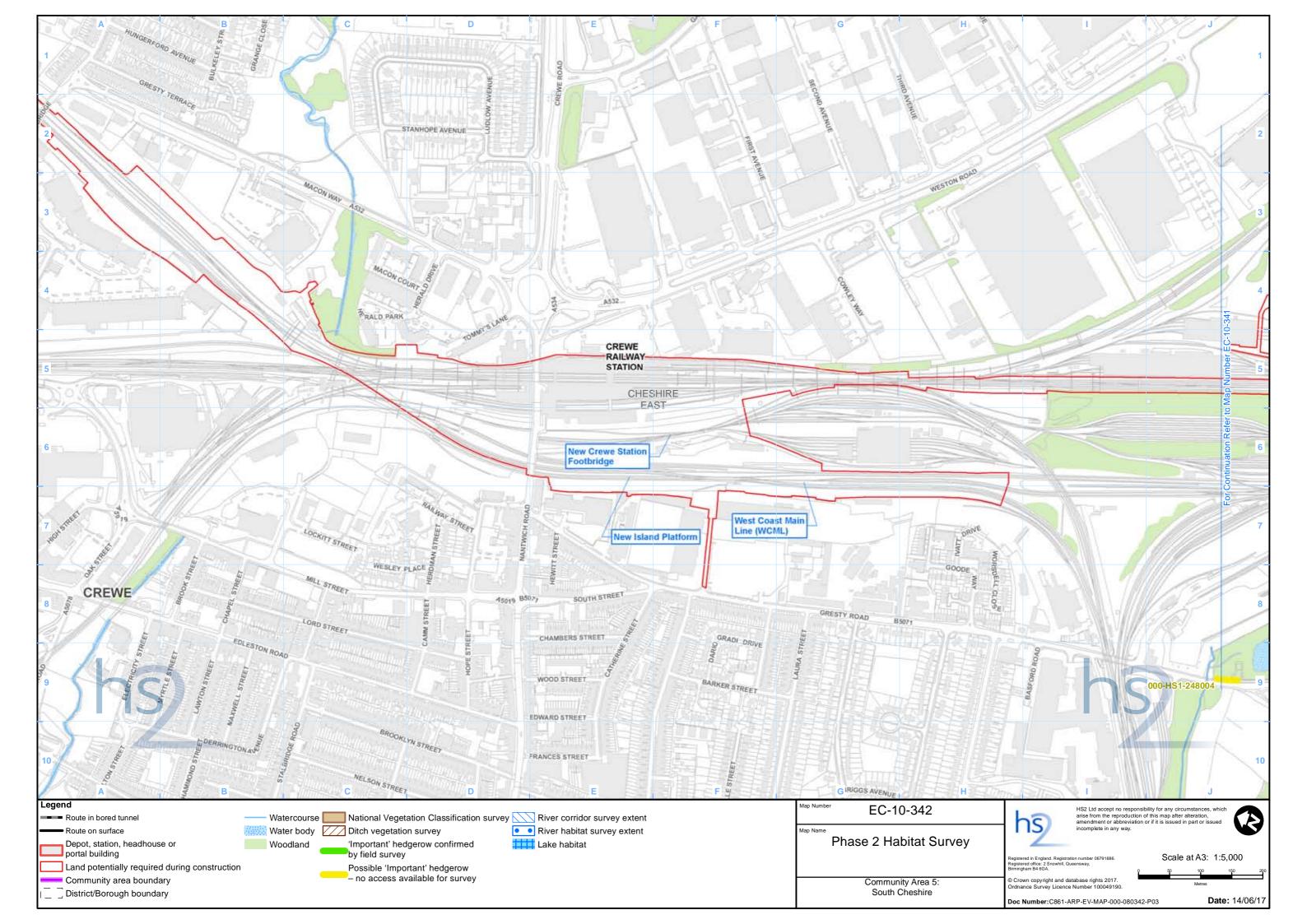








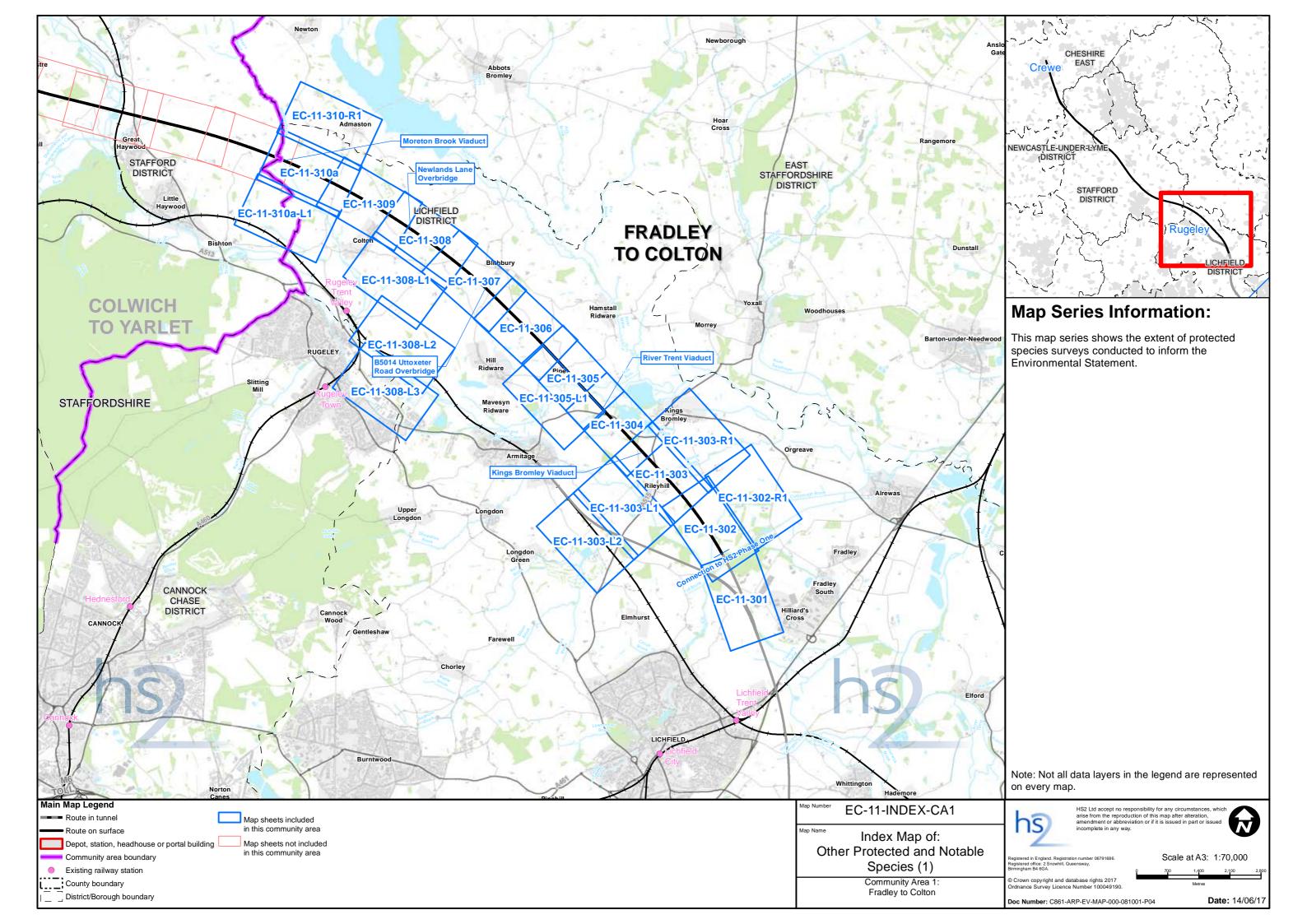


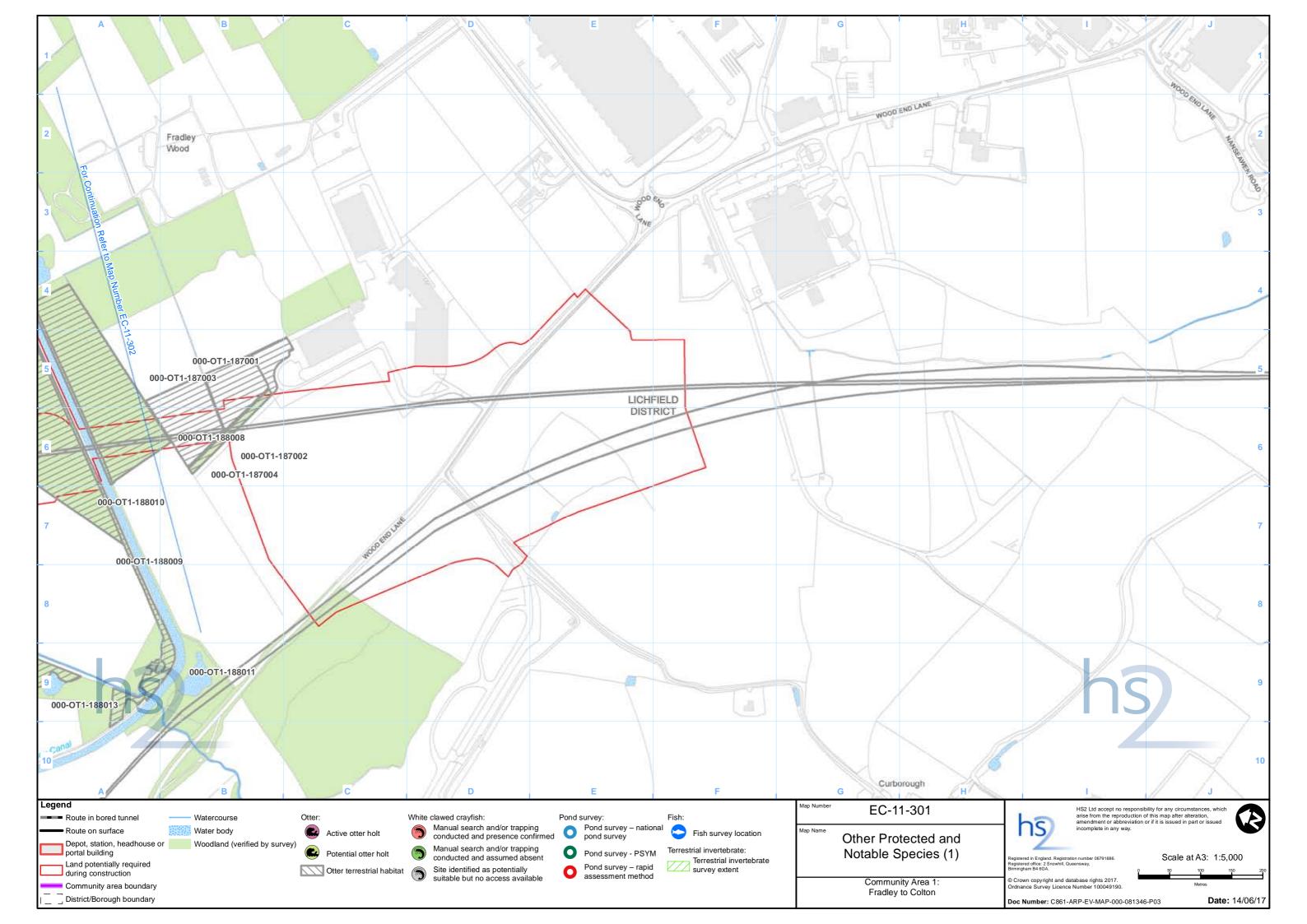


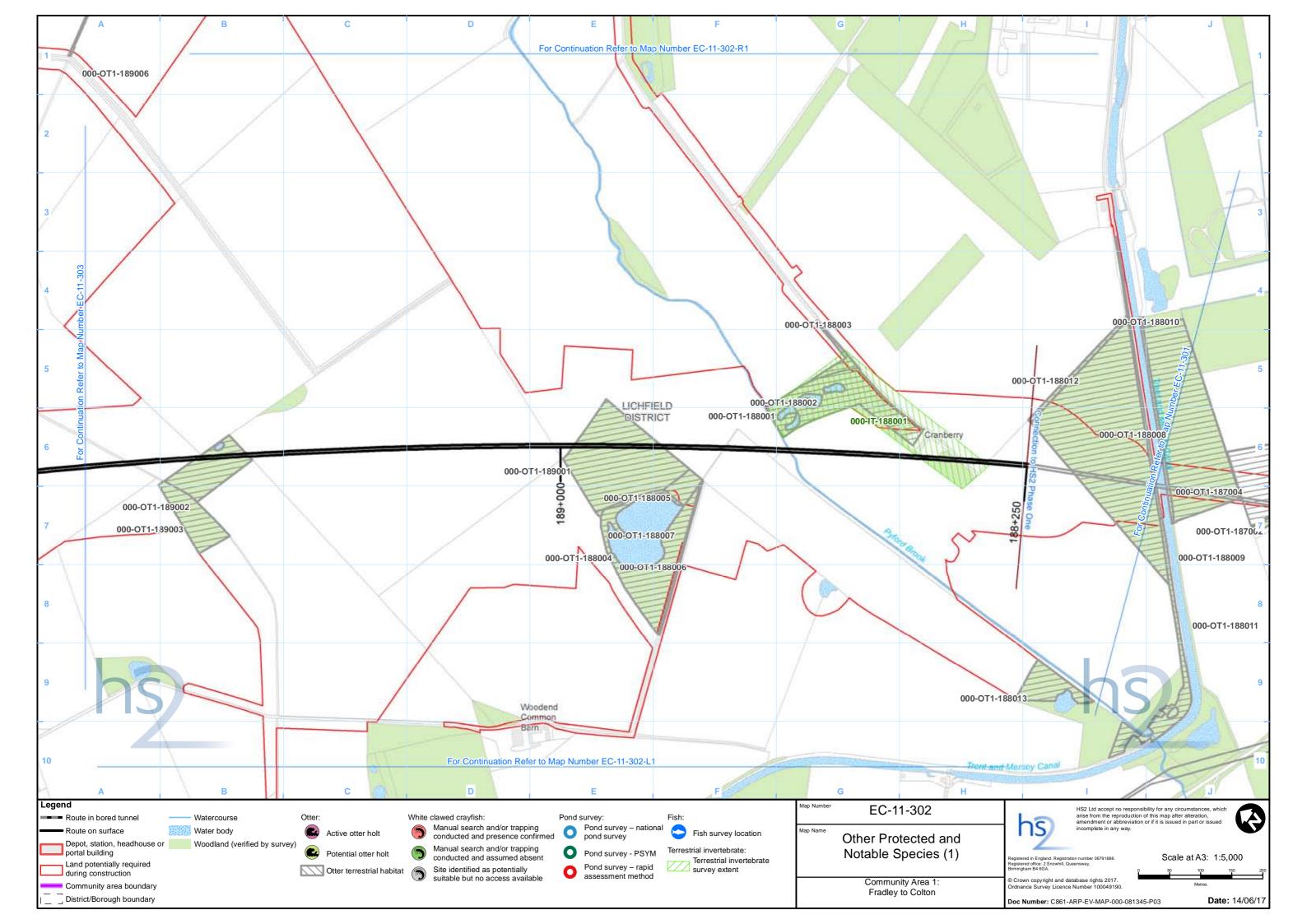
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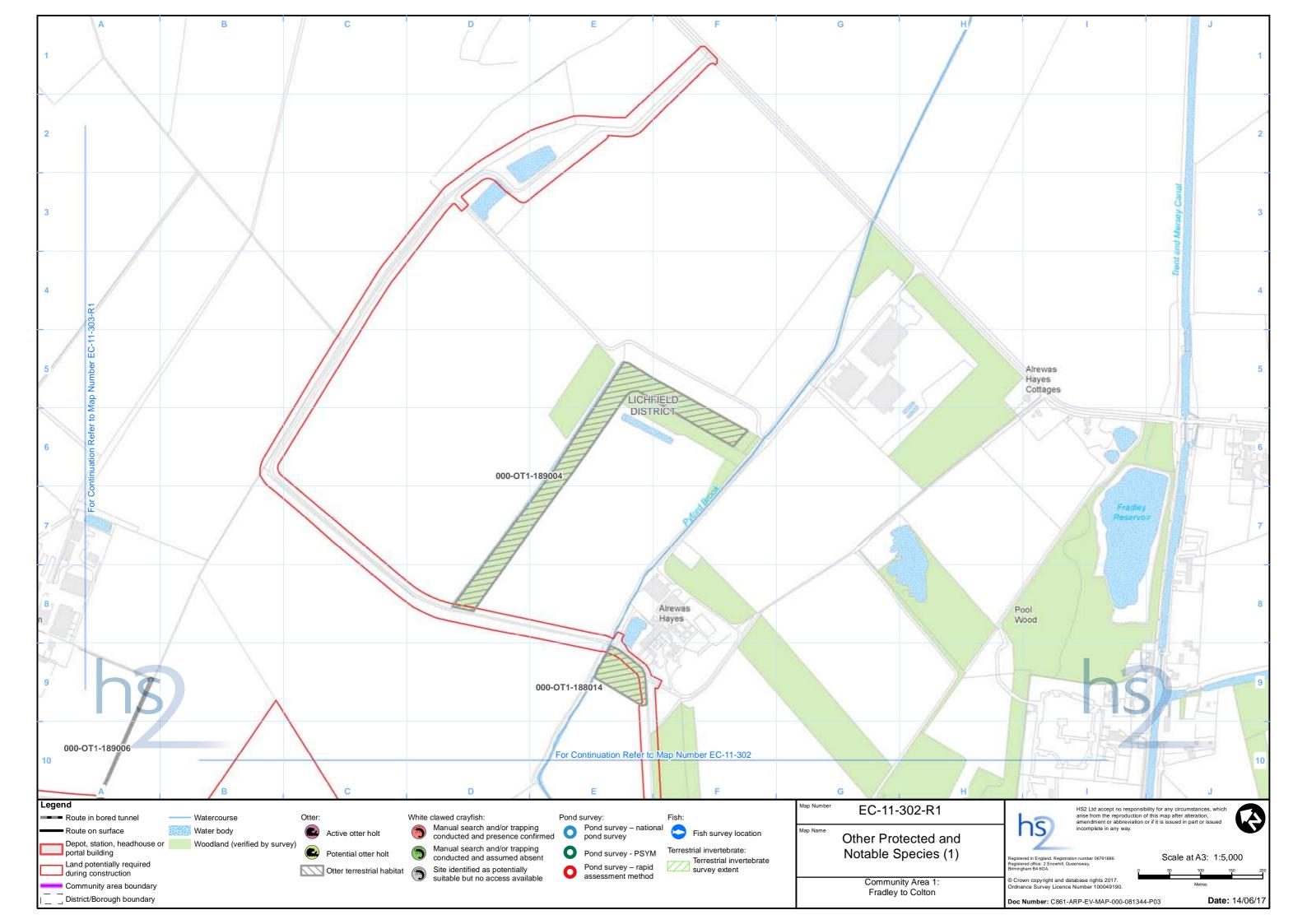
High Speed Two Phase 2a (West Midlands-Crewe)
Background Information and Data

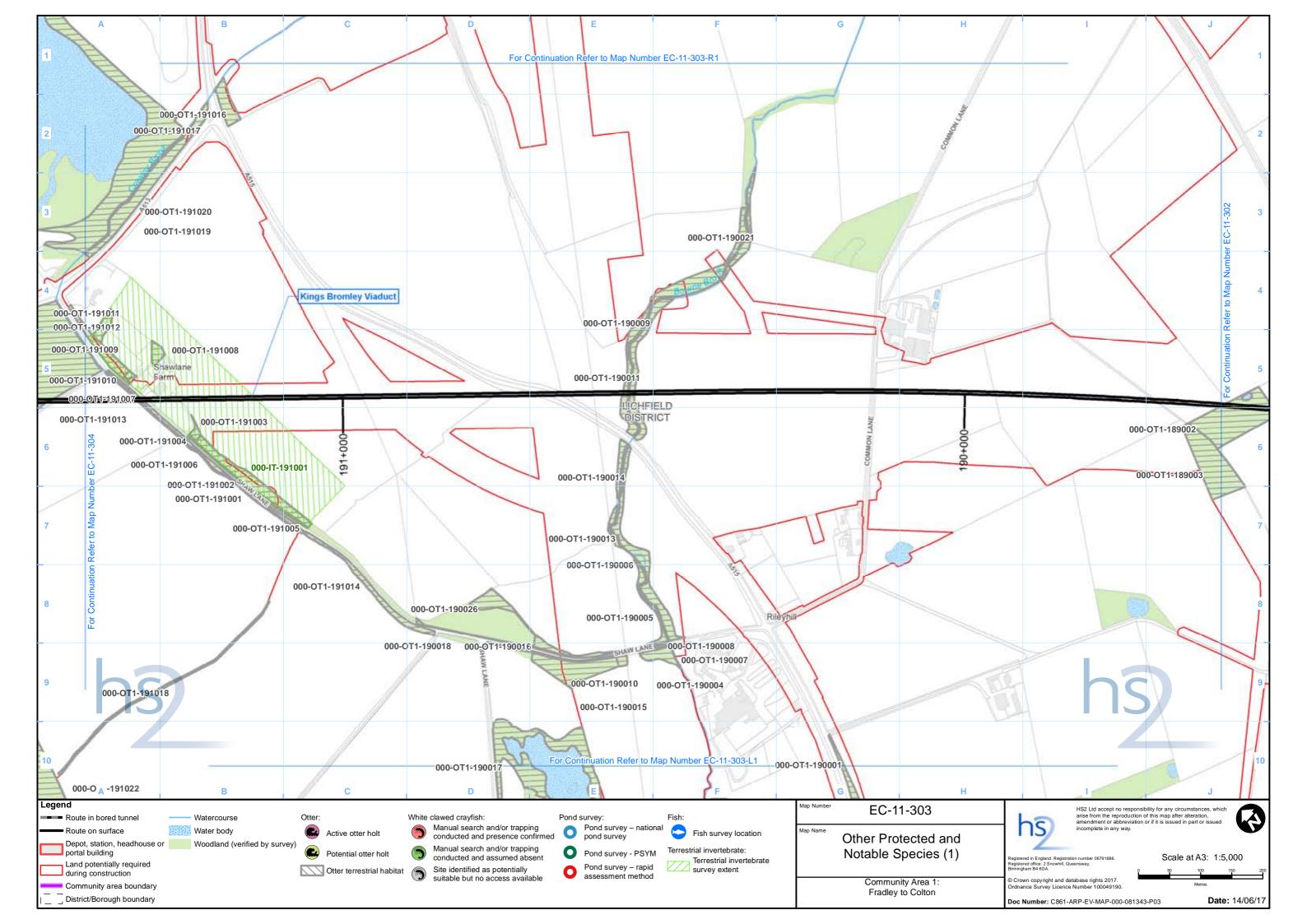
EC-11 - Other Protected and Notable Species (1)

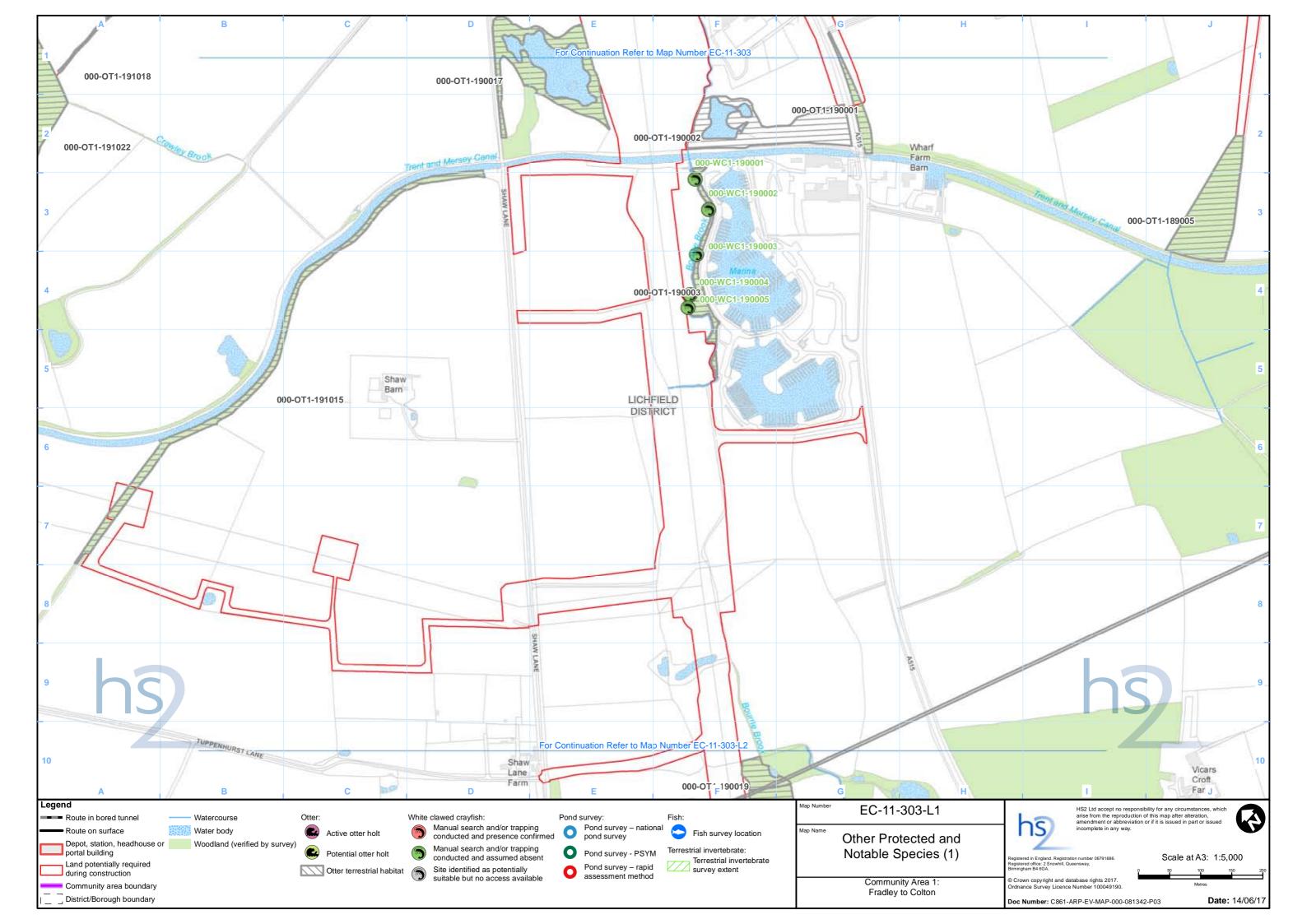


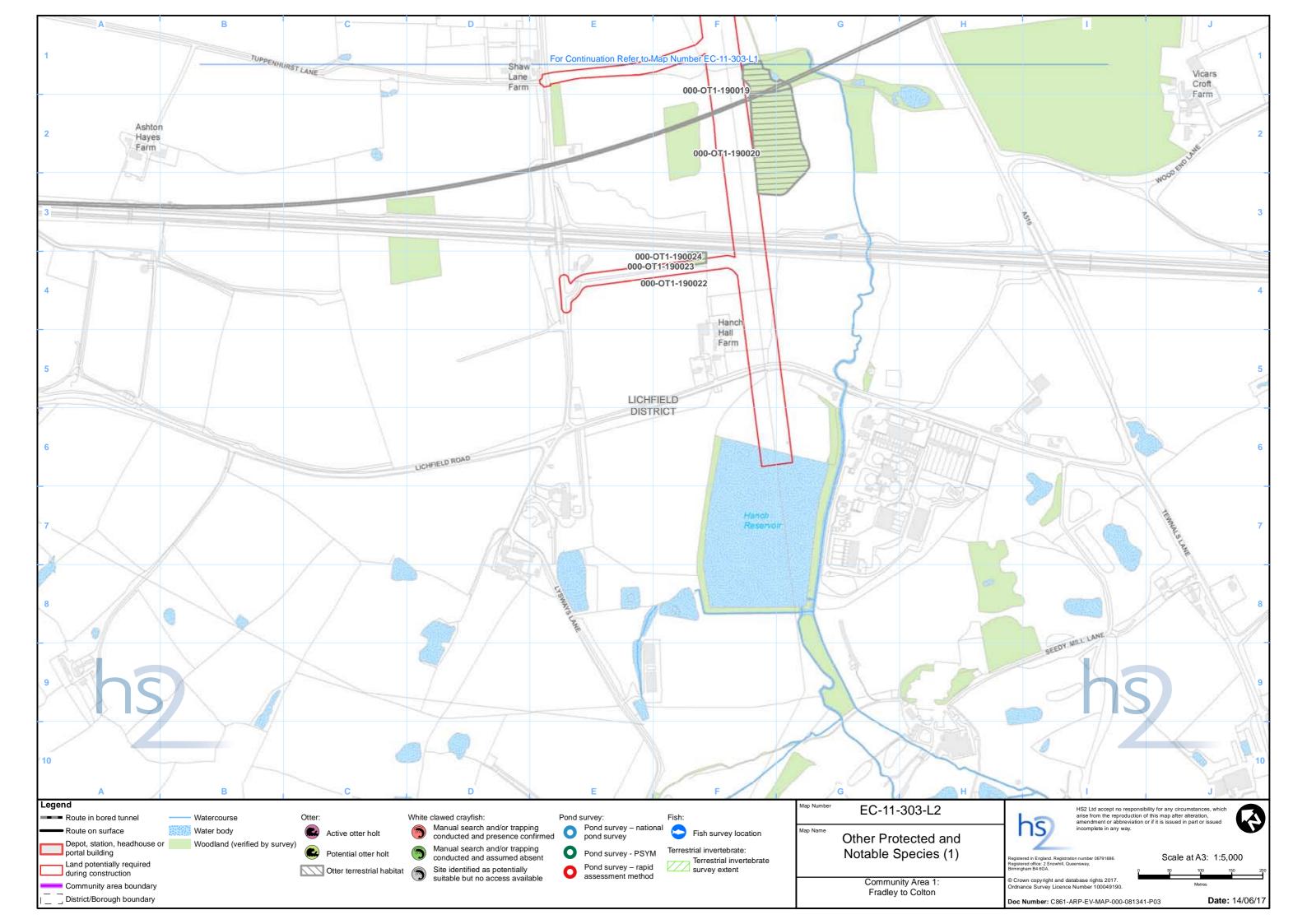


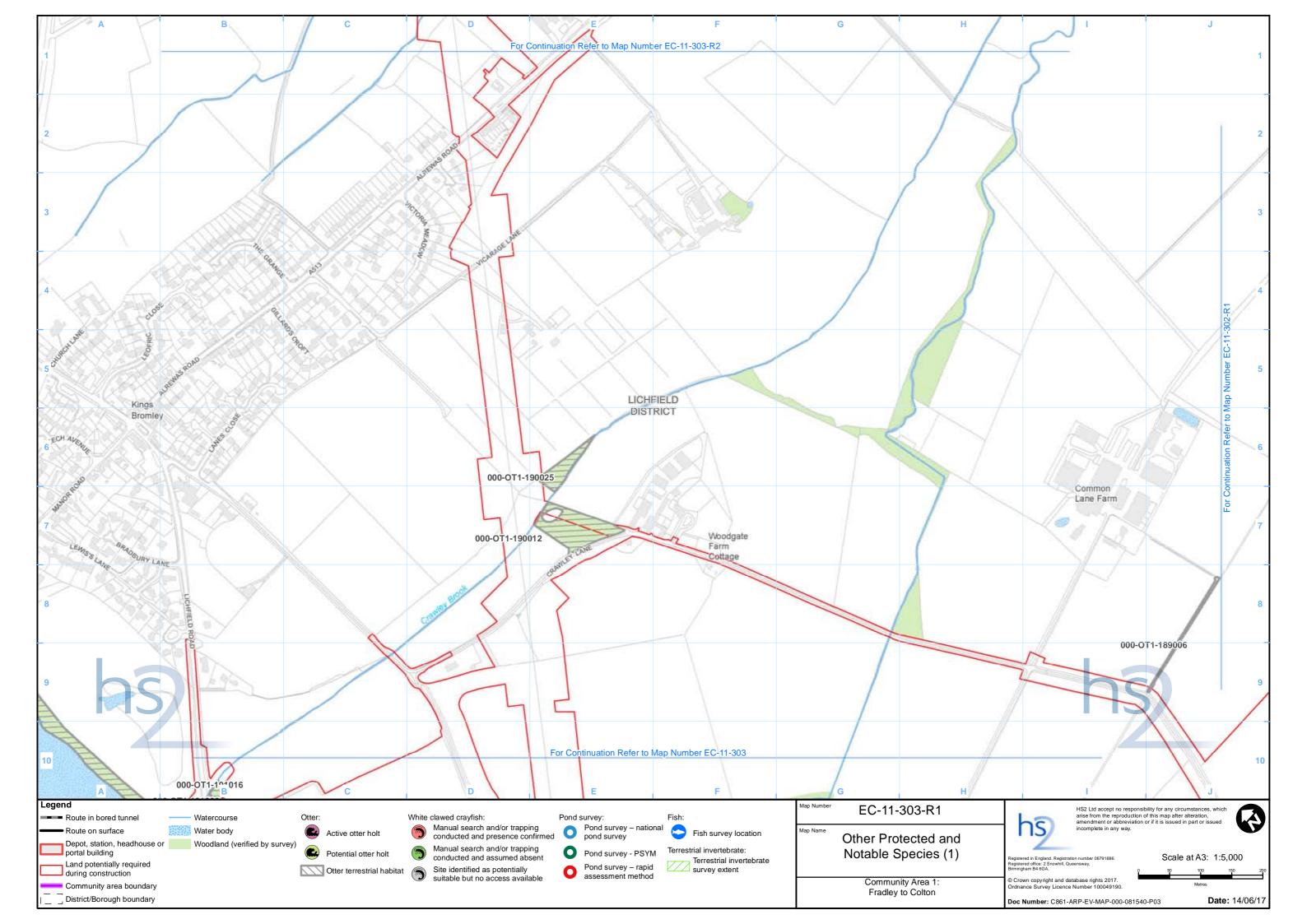


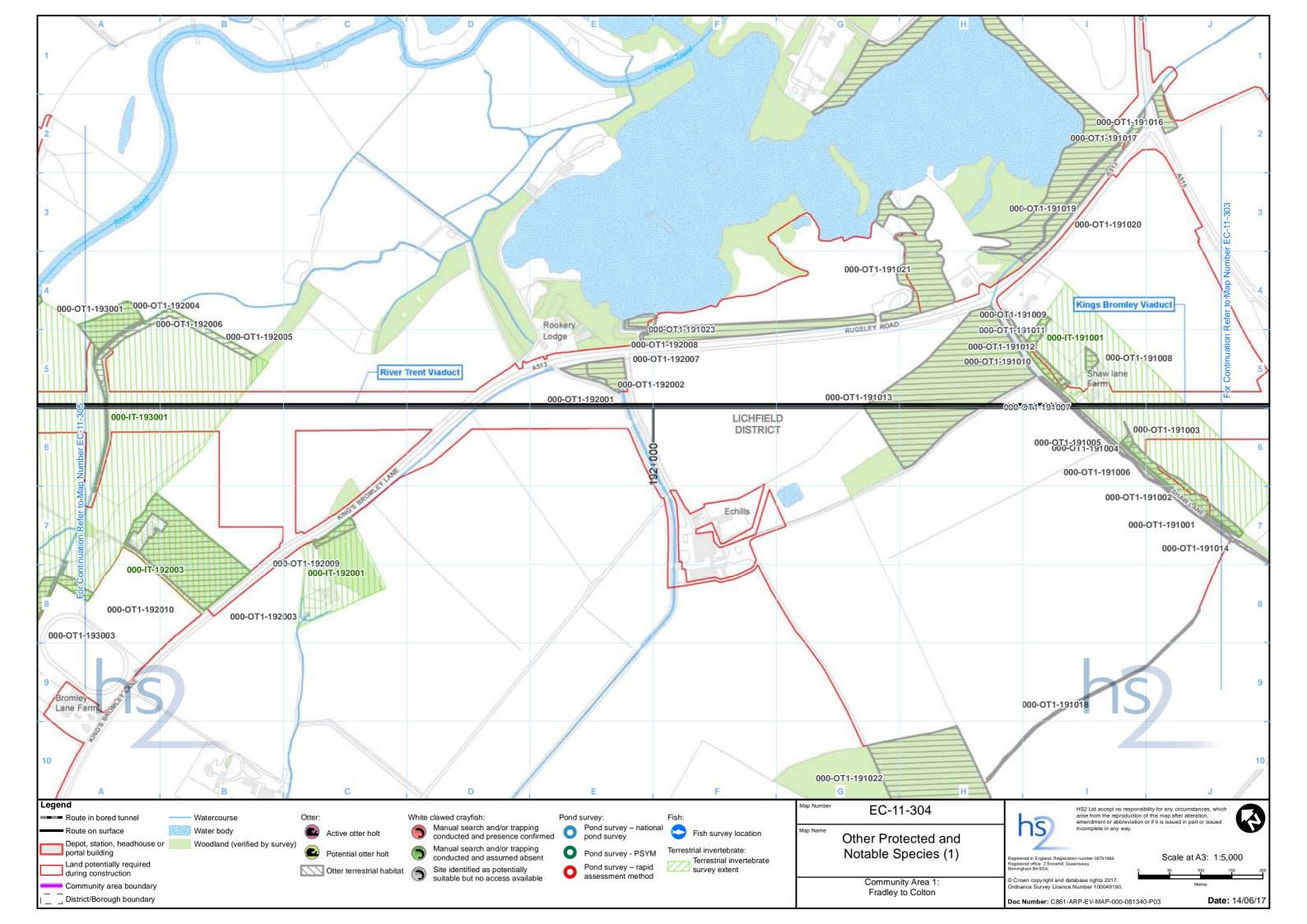


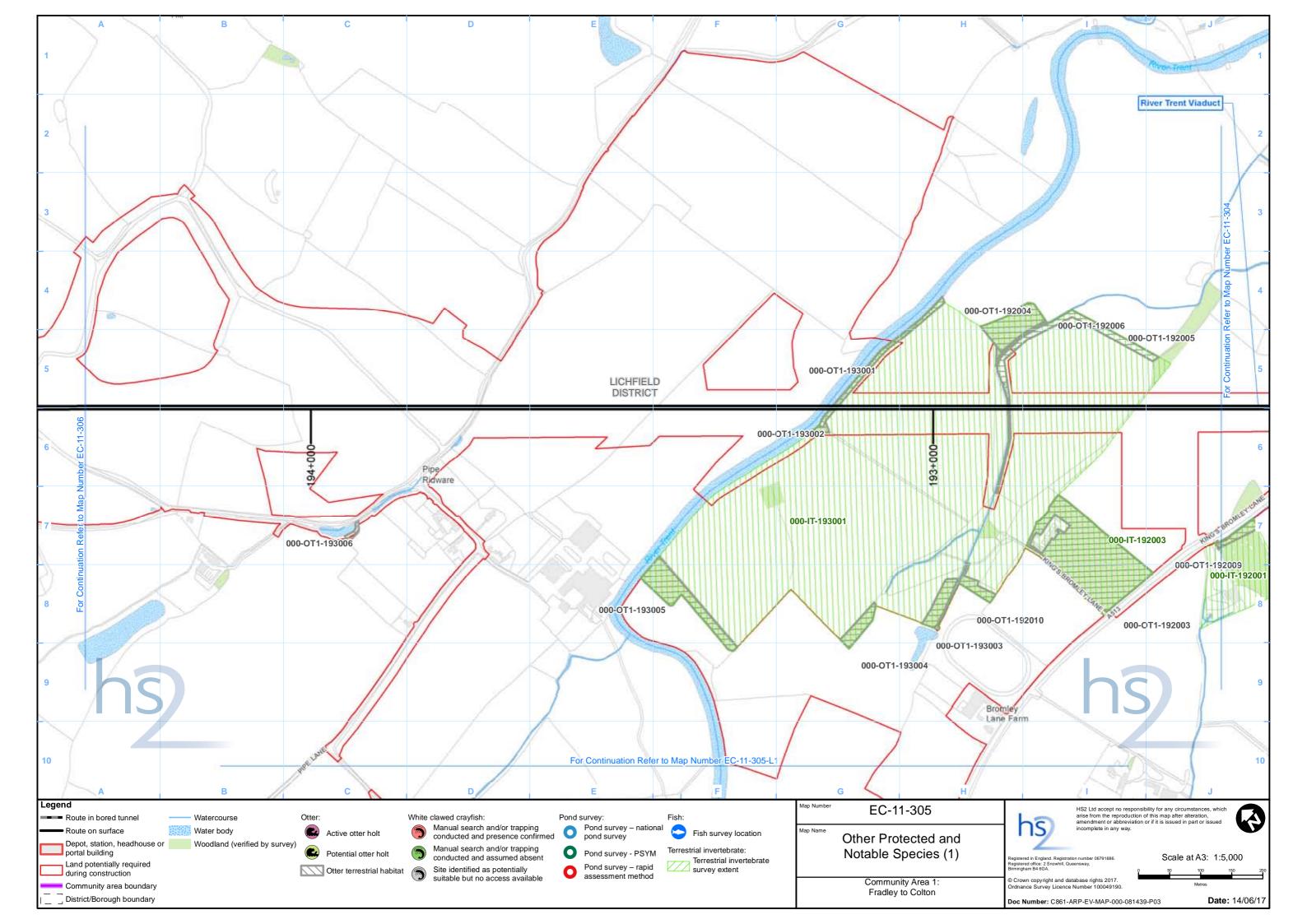


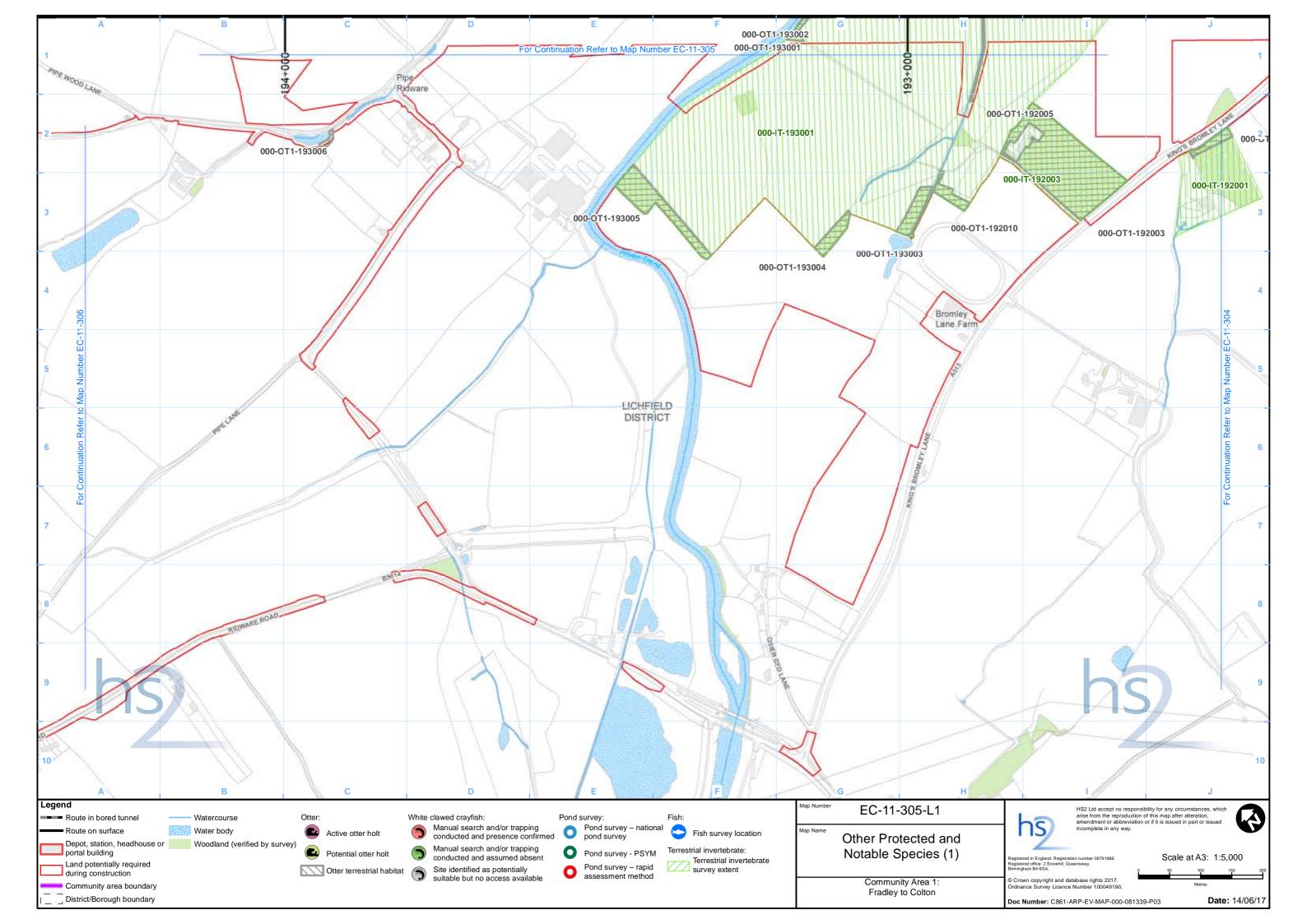


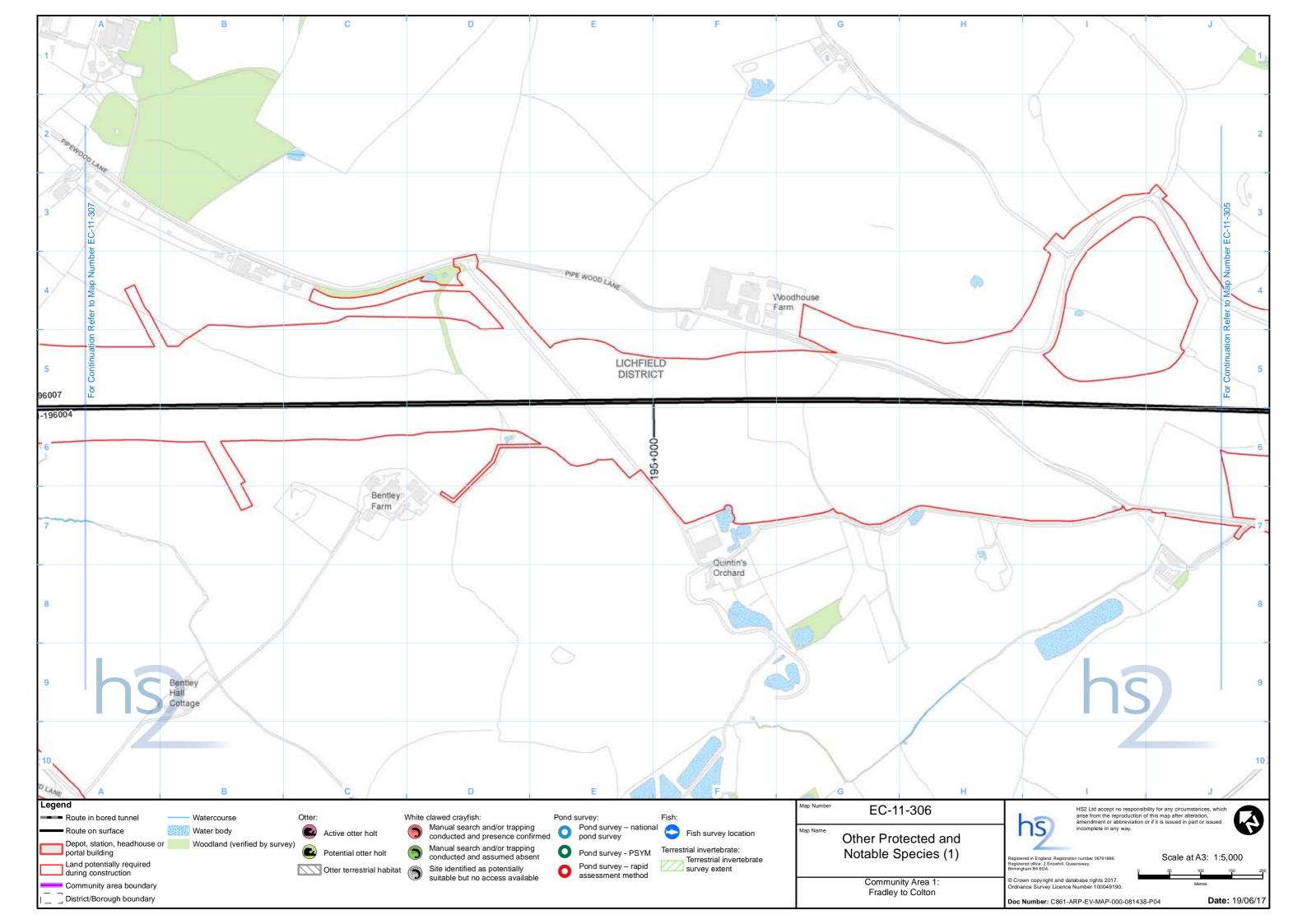


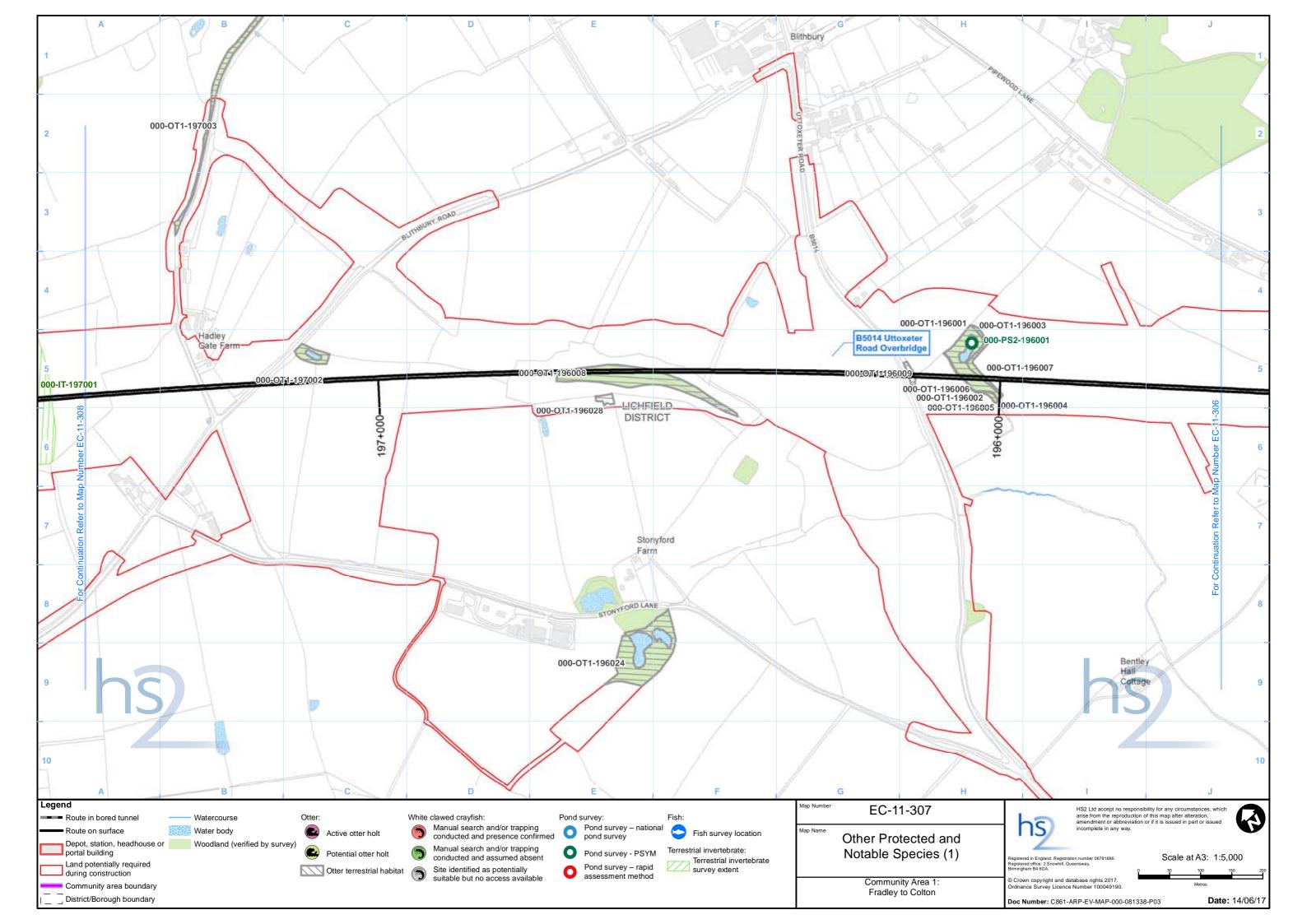


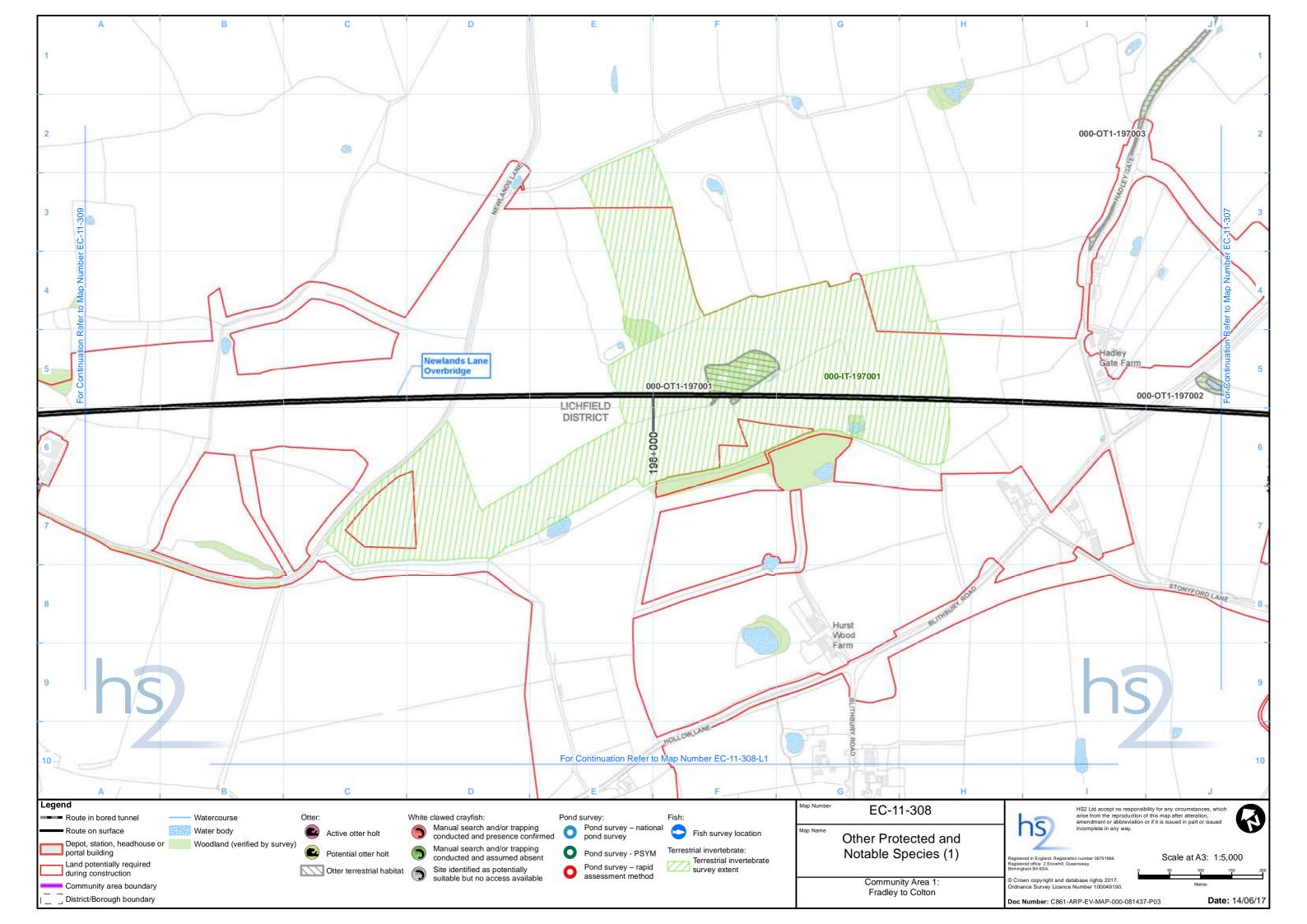


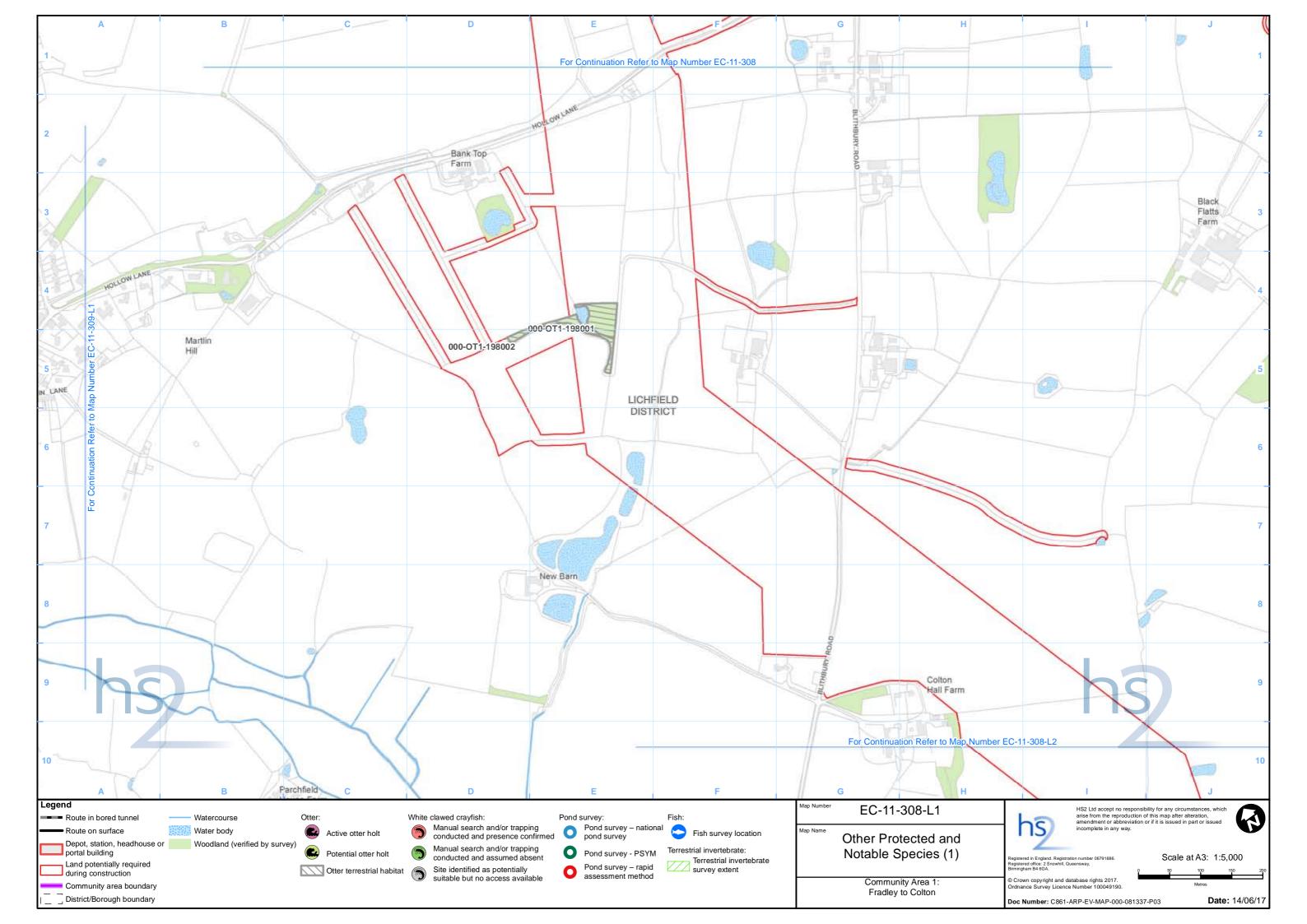


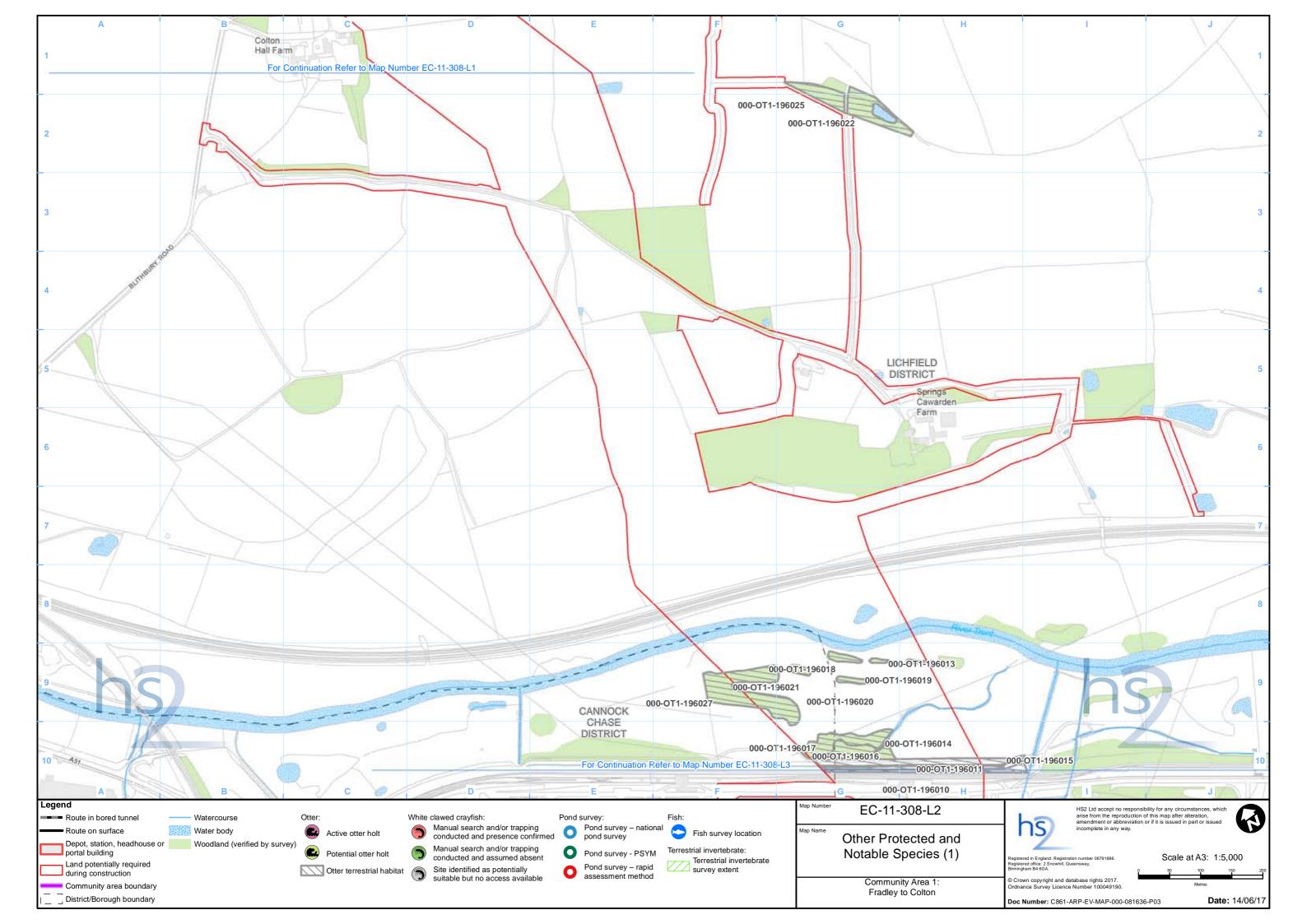


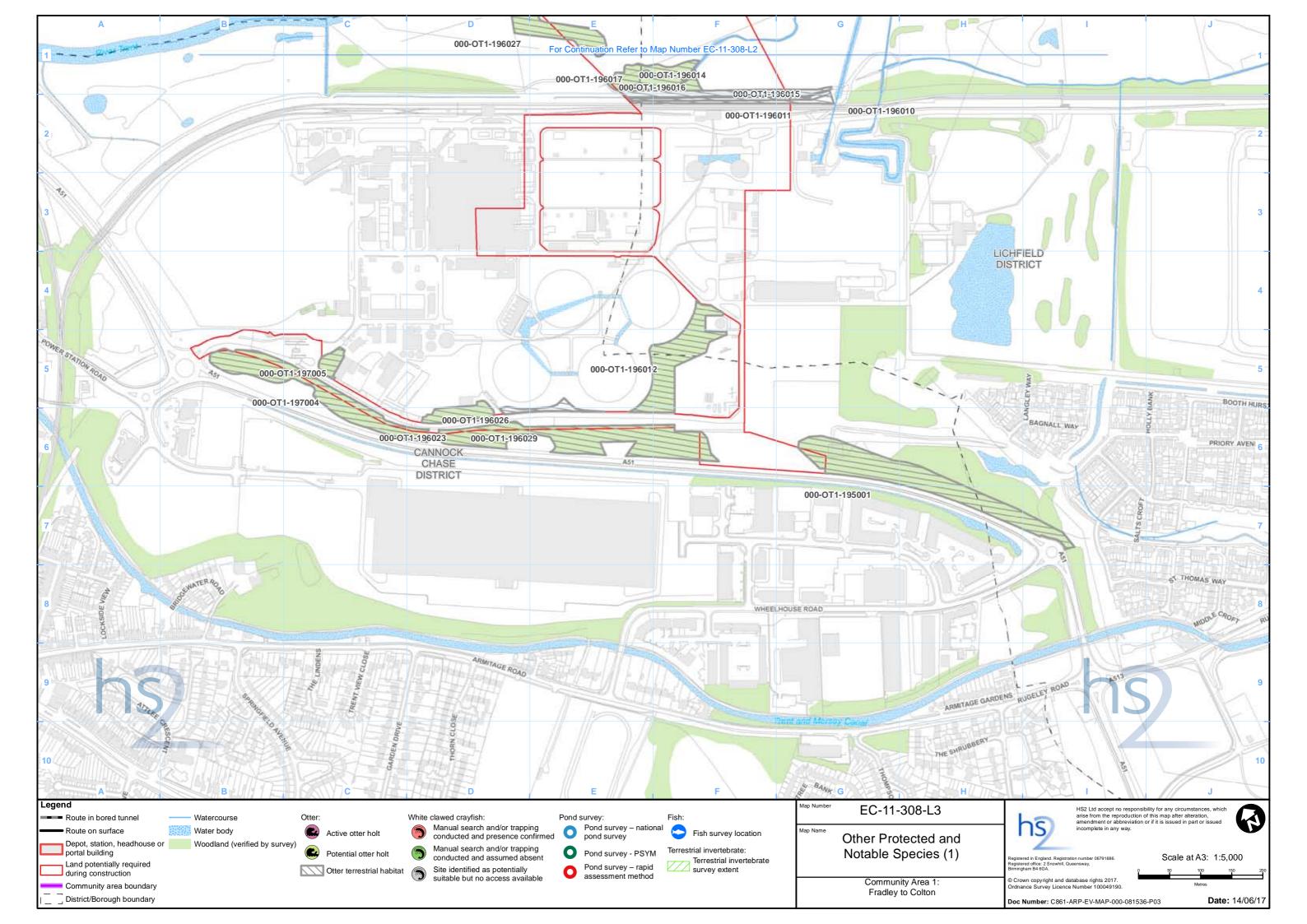


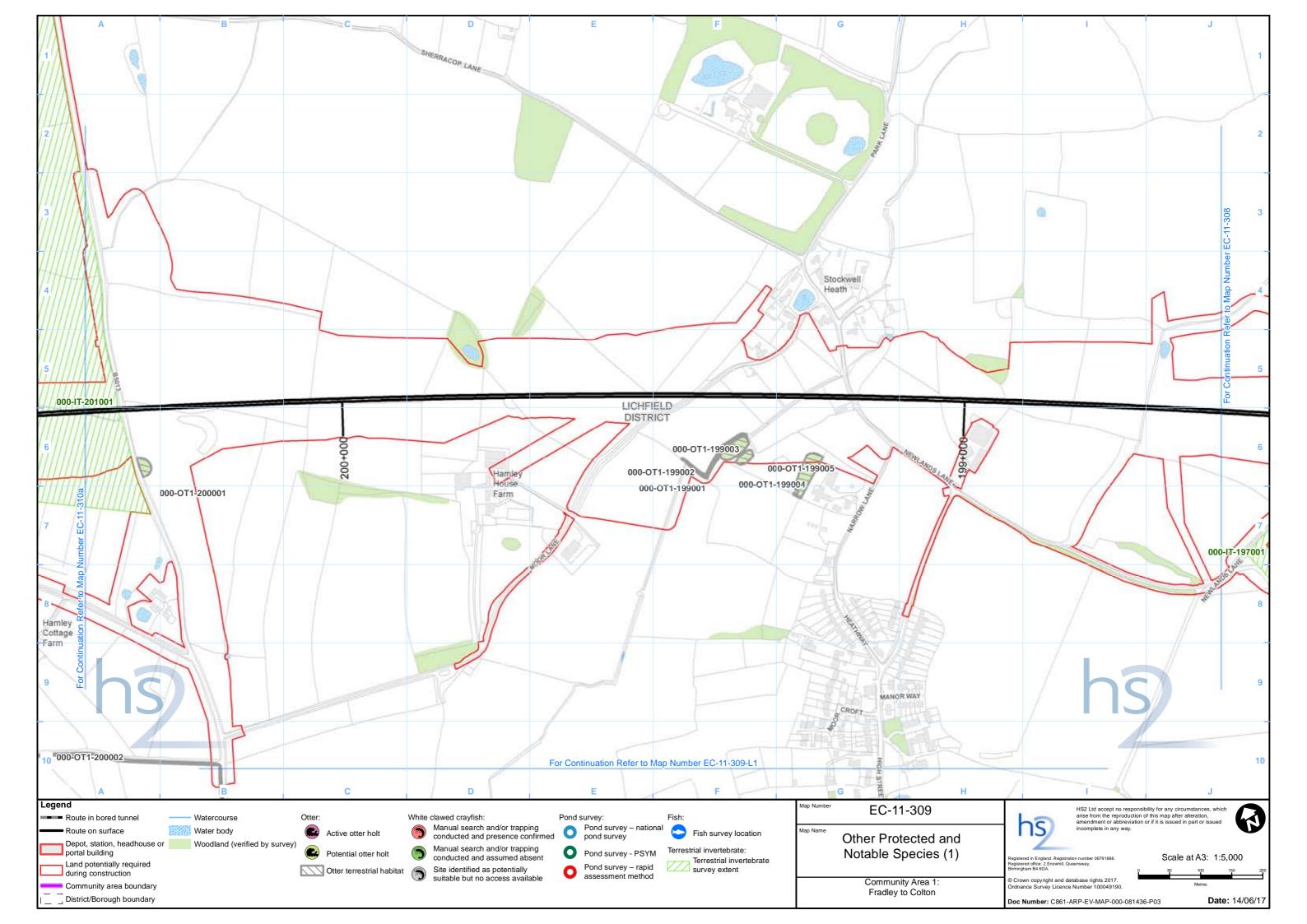


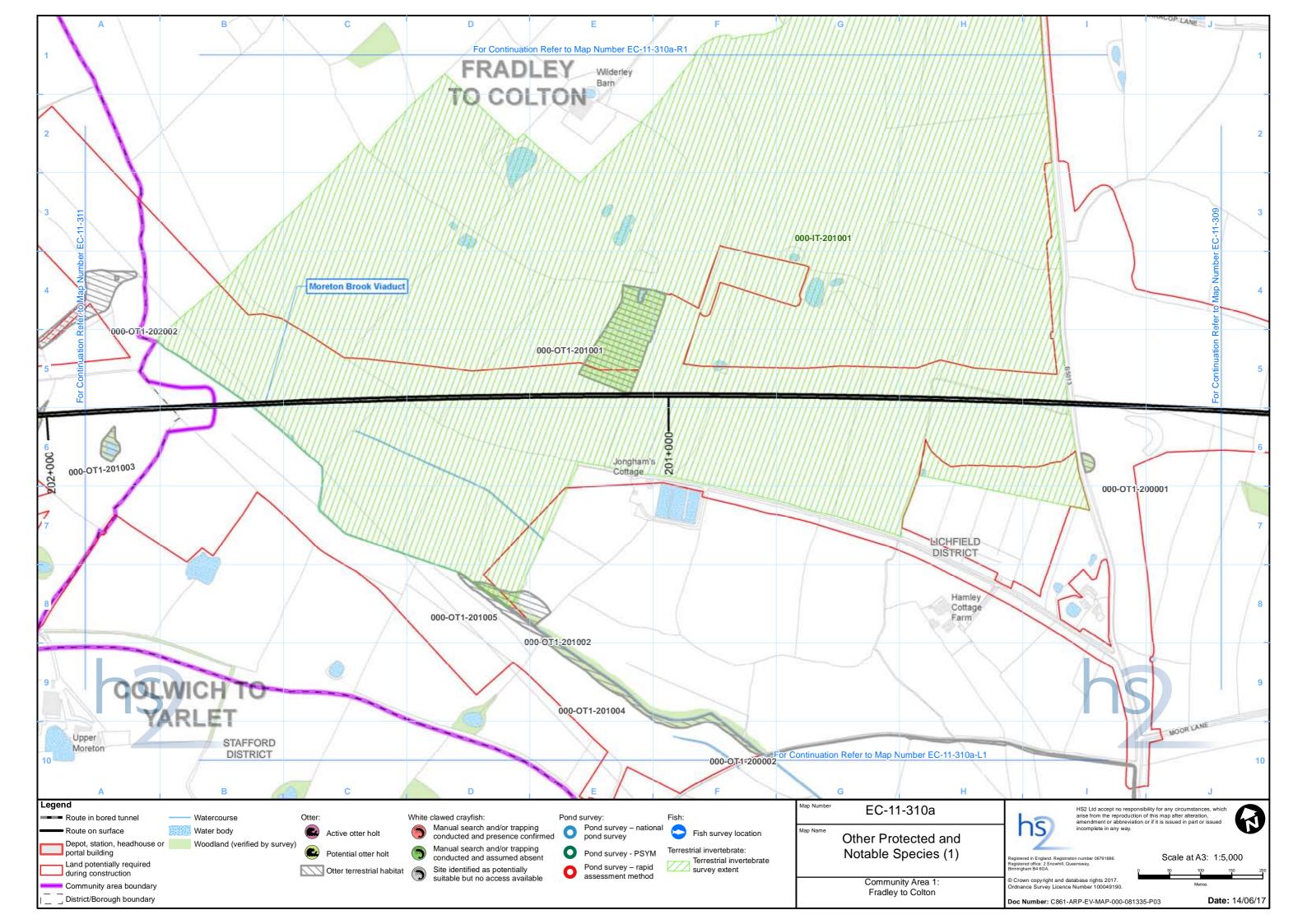


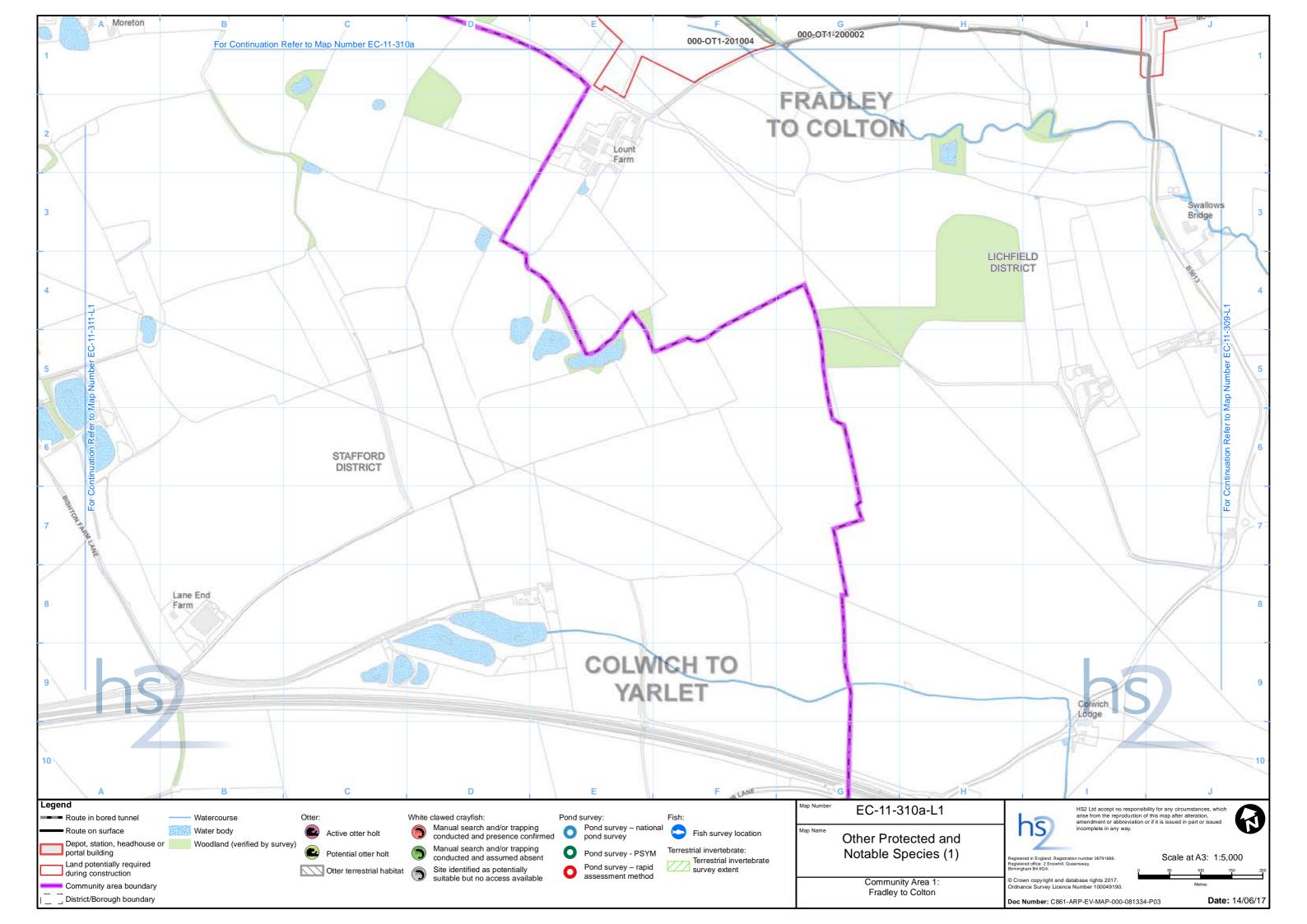


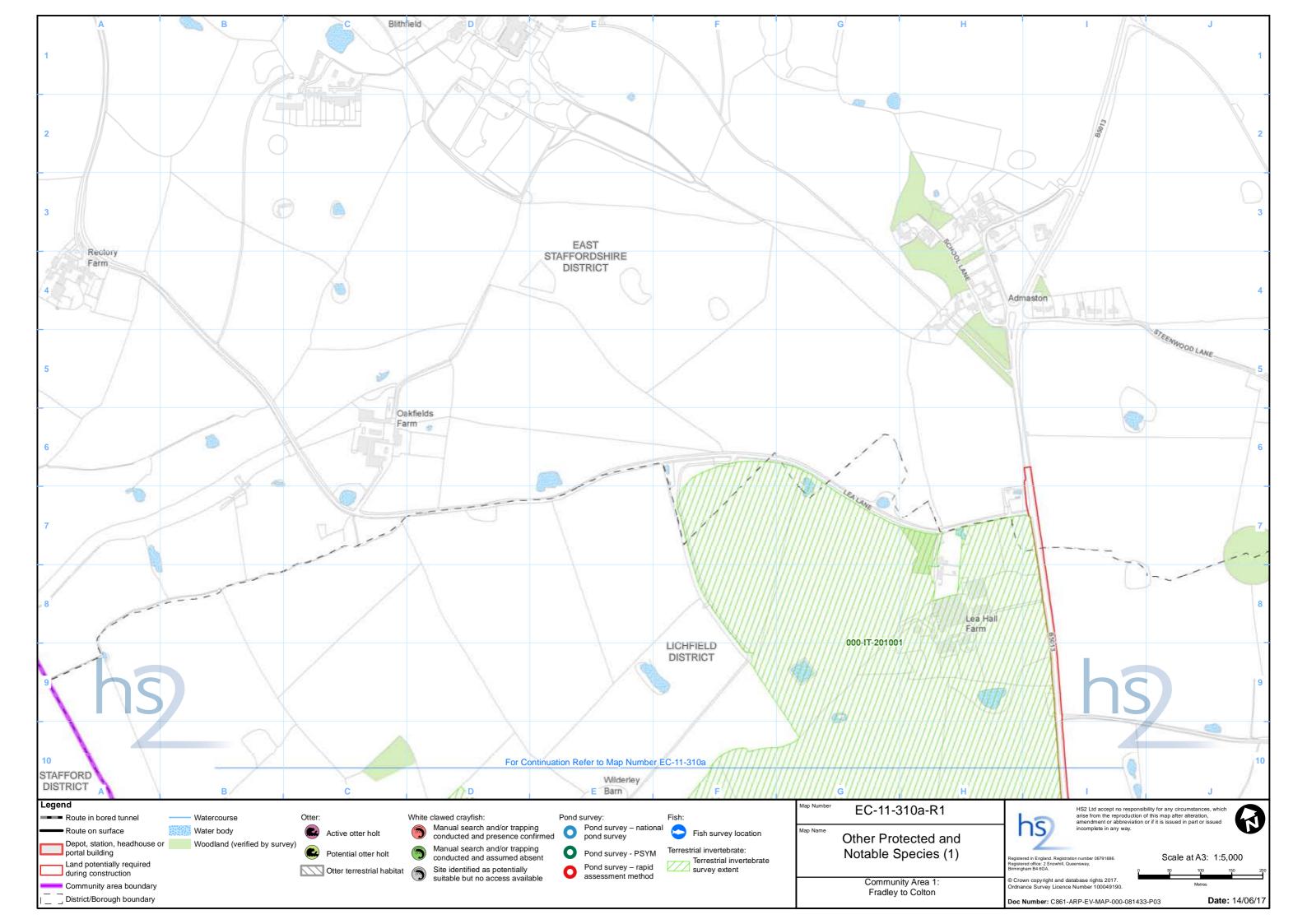




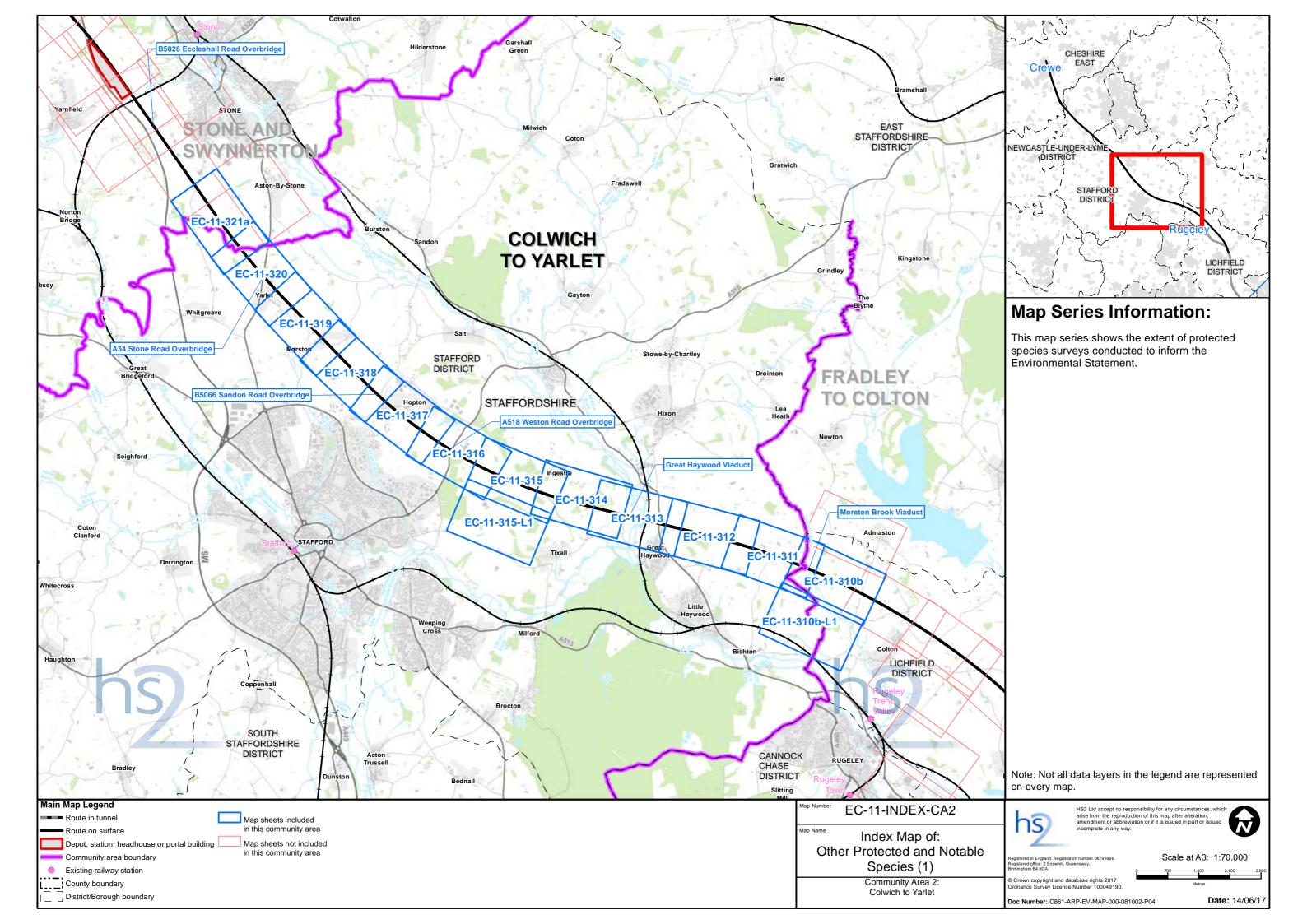


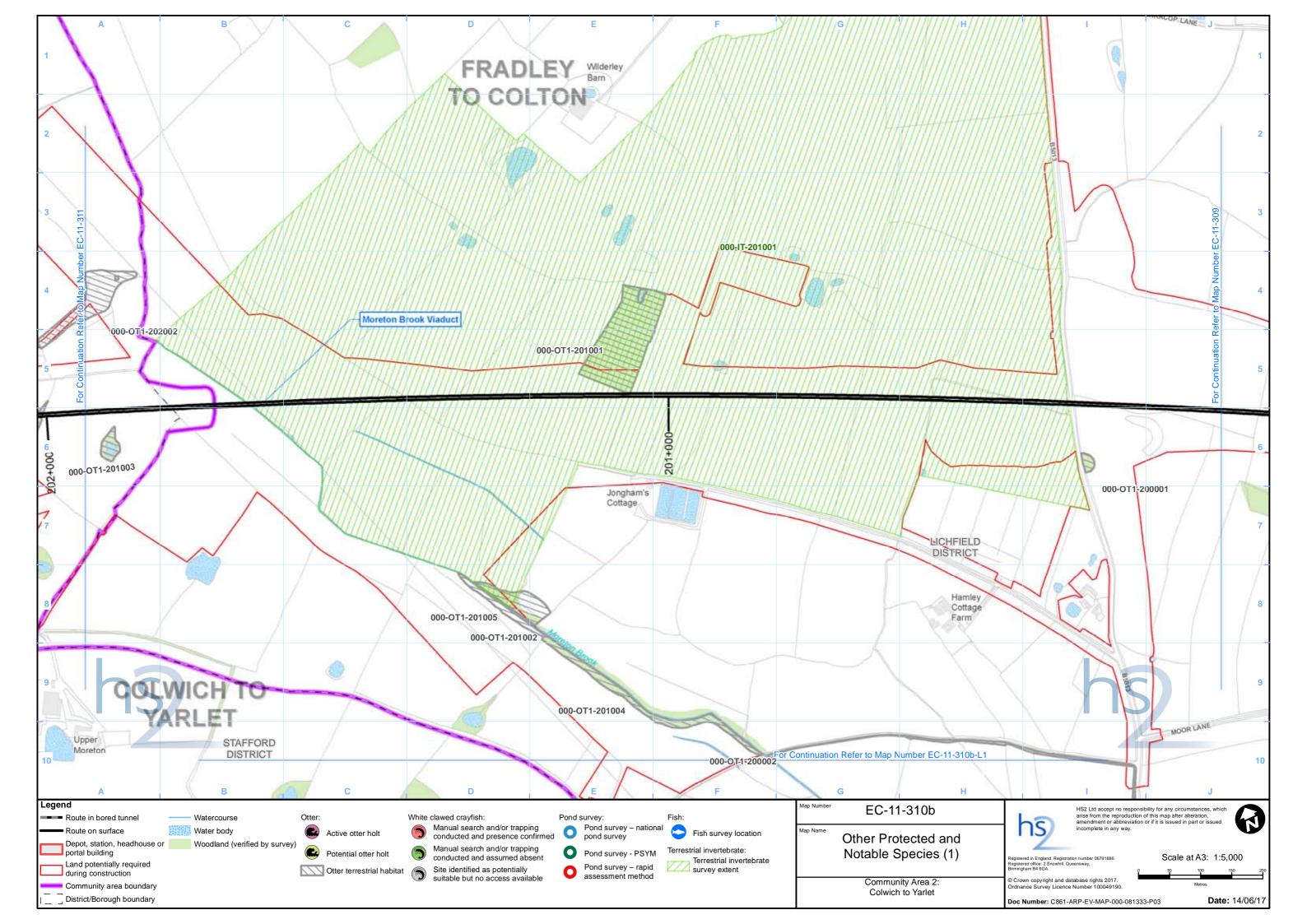


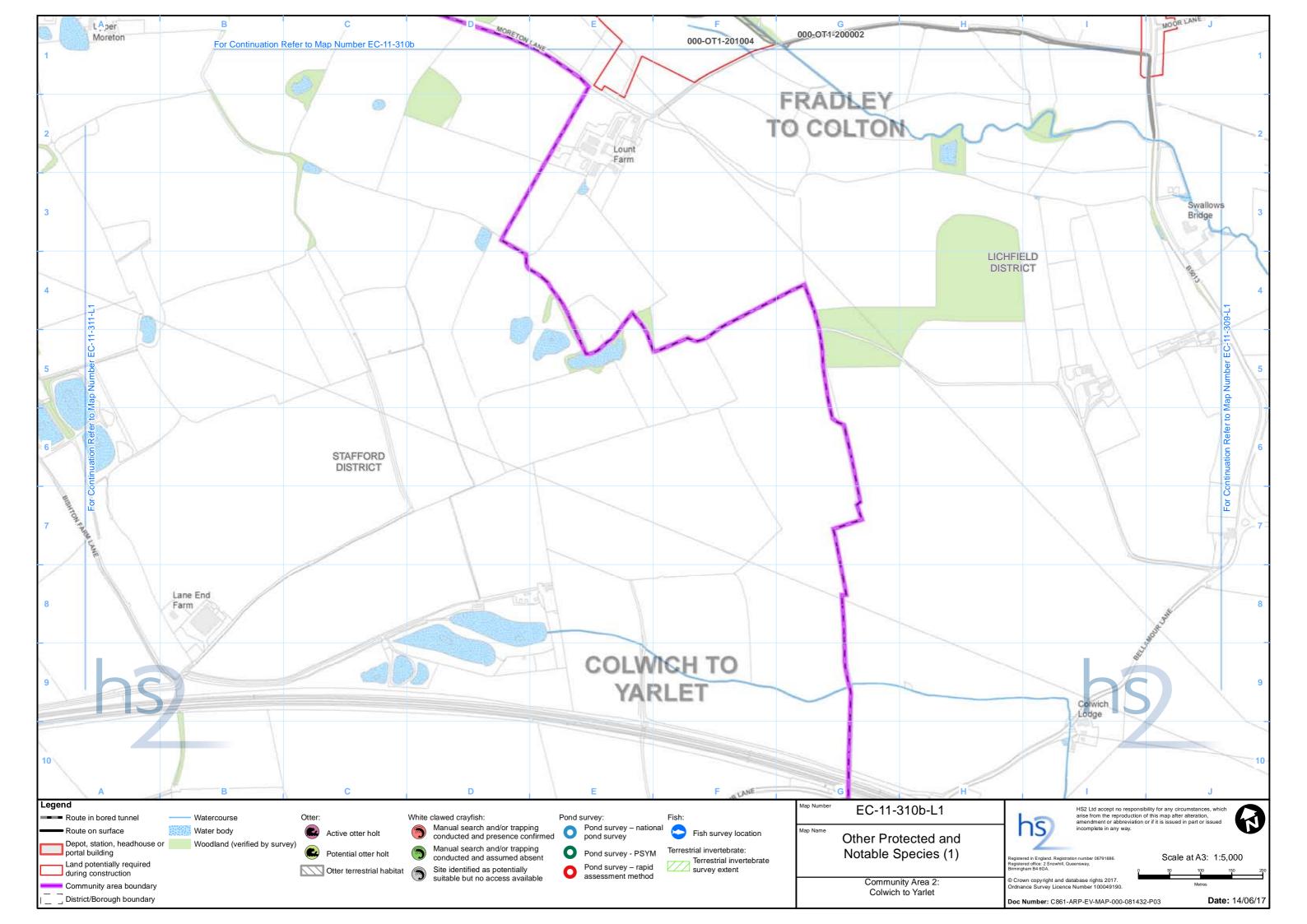


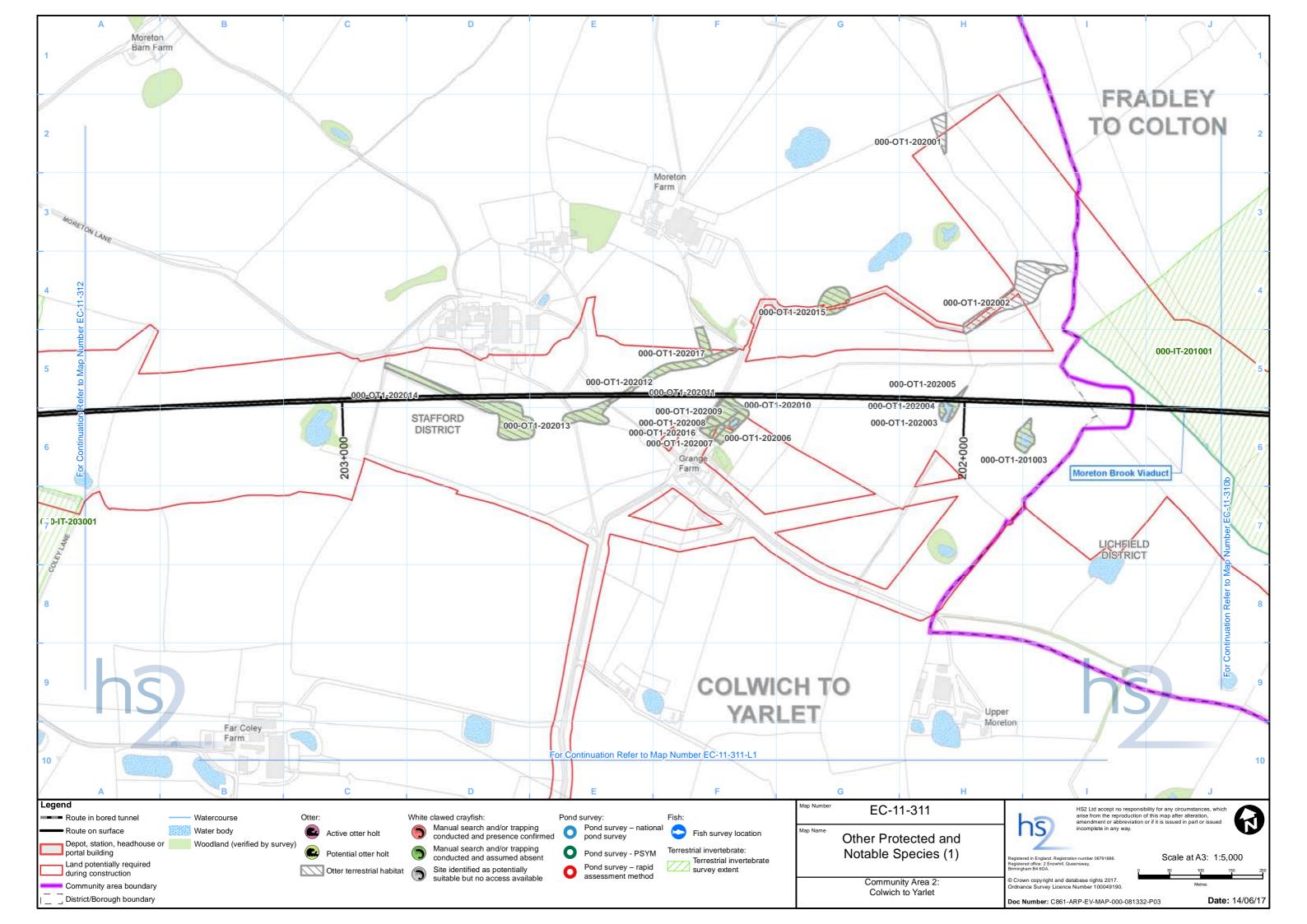


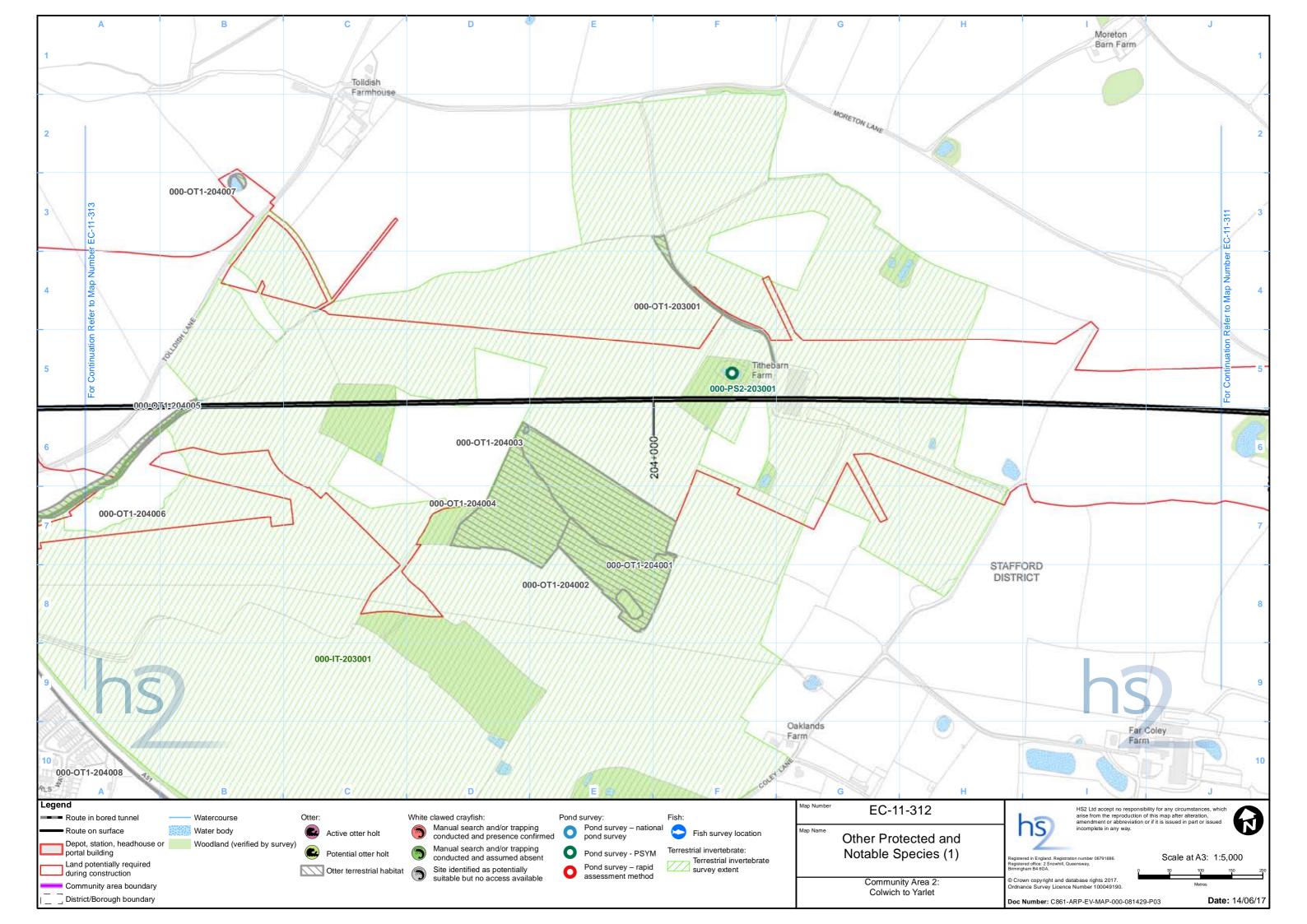
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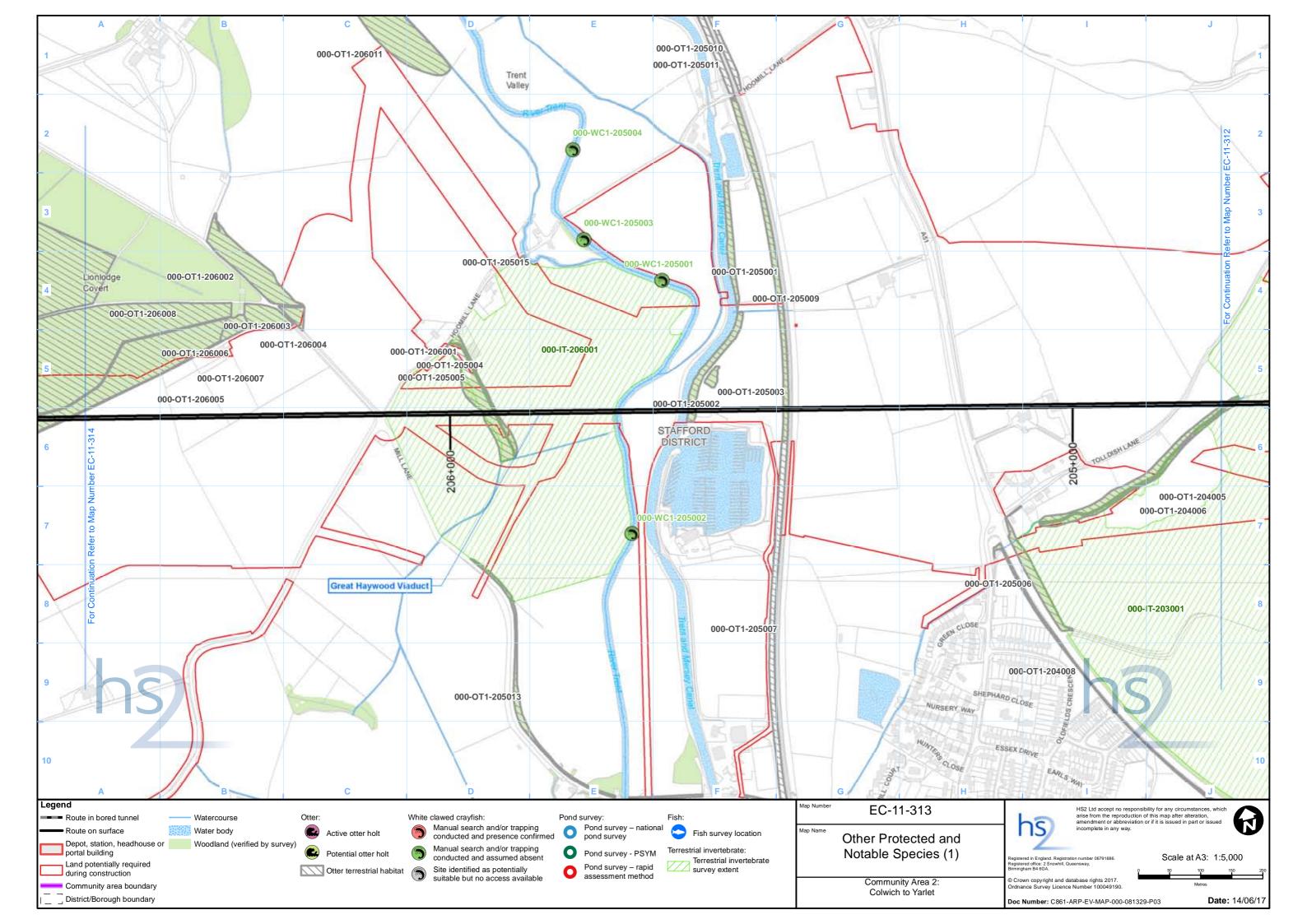


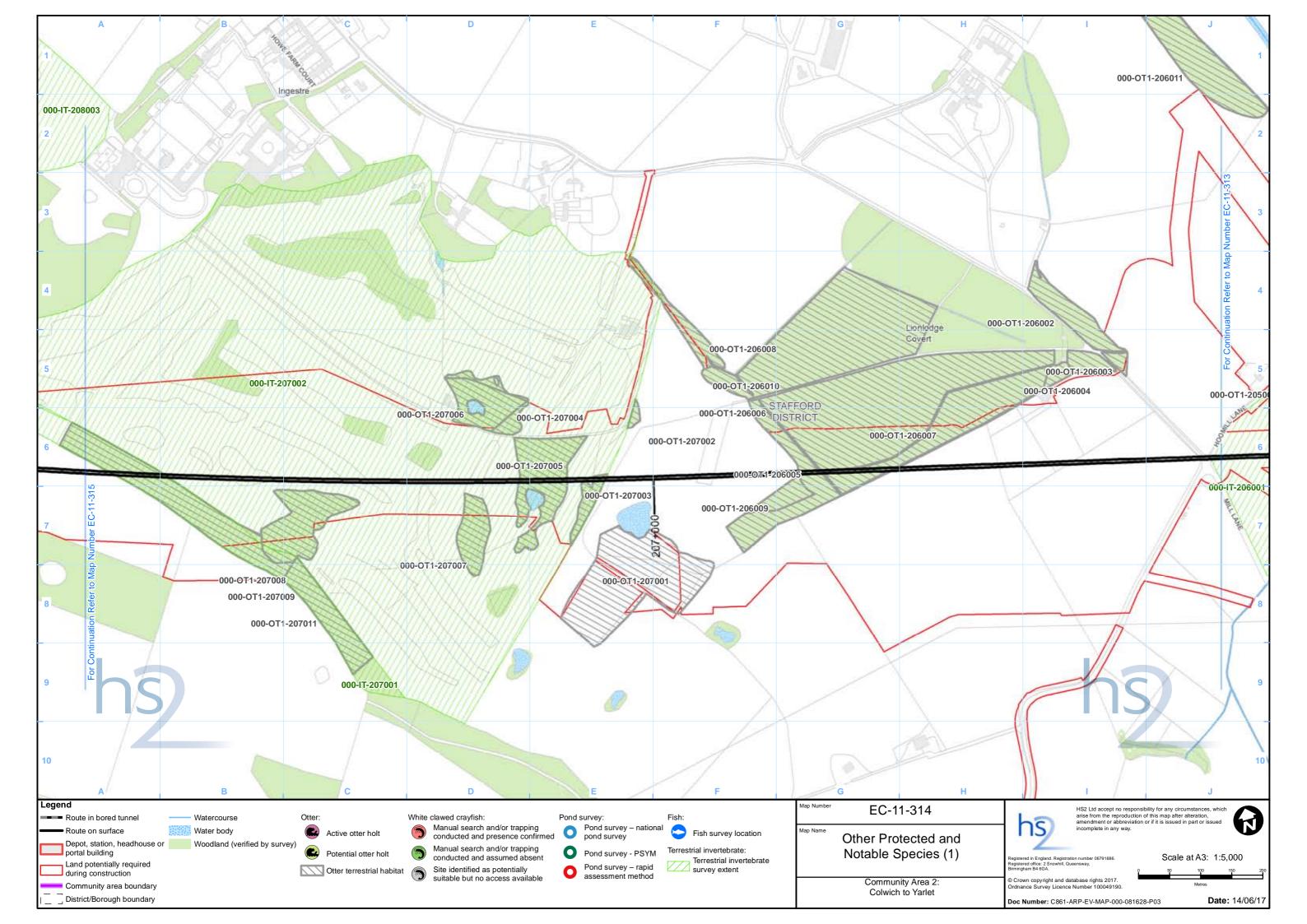


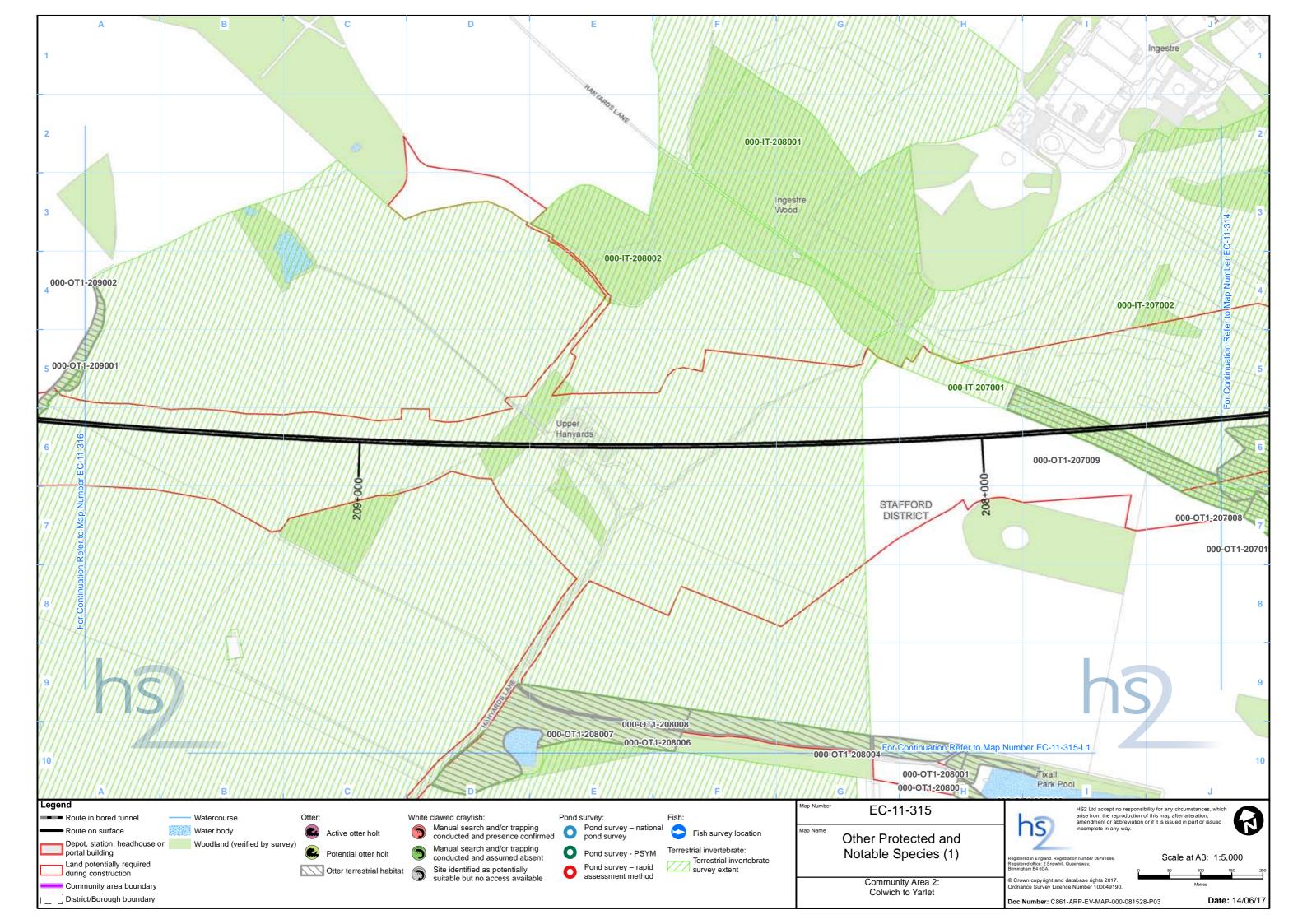


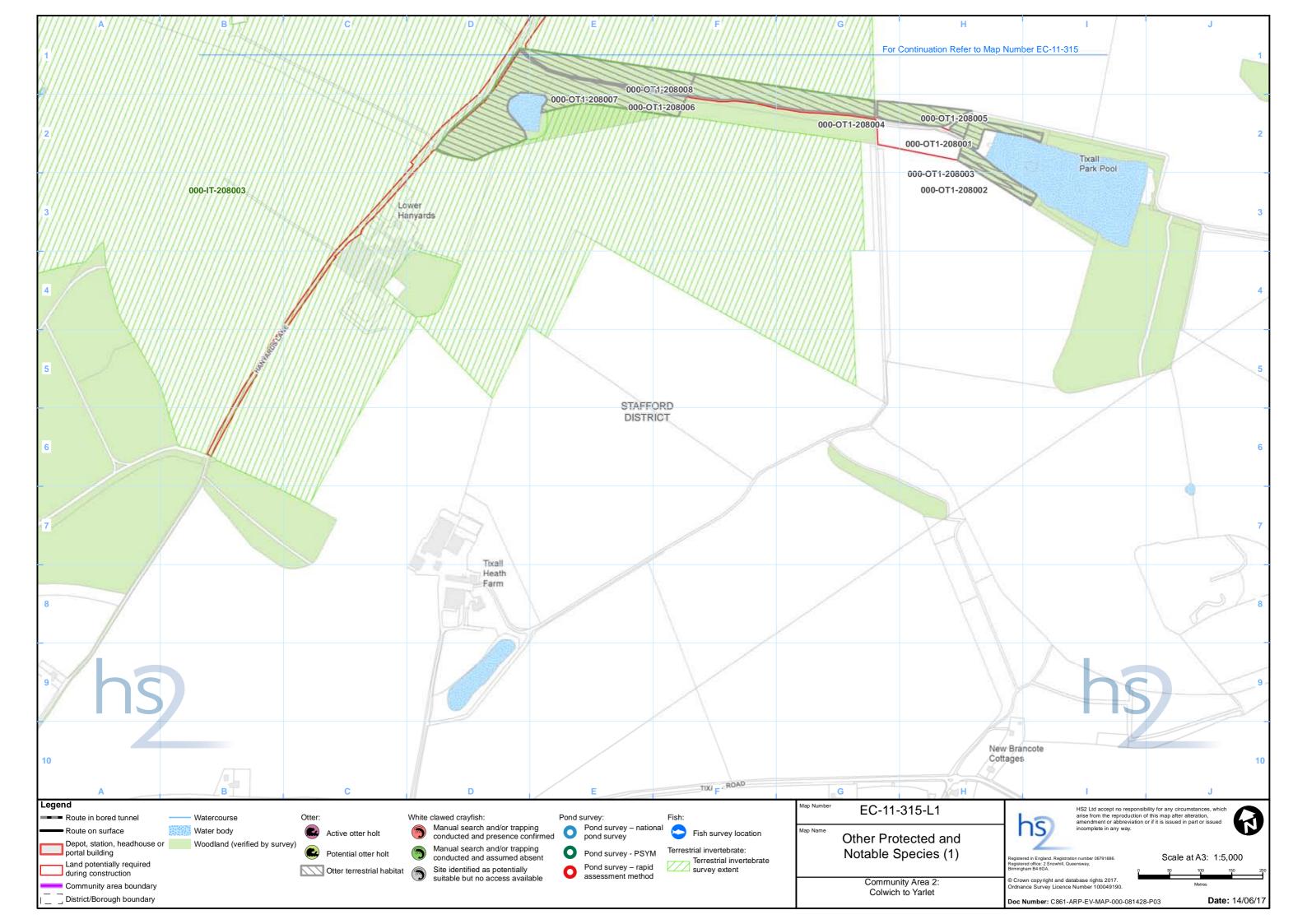


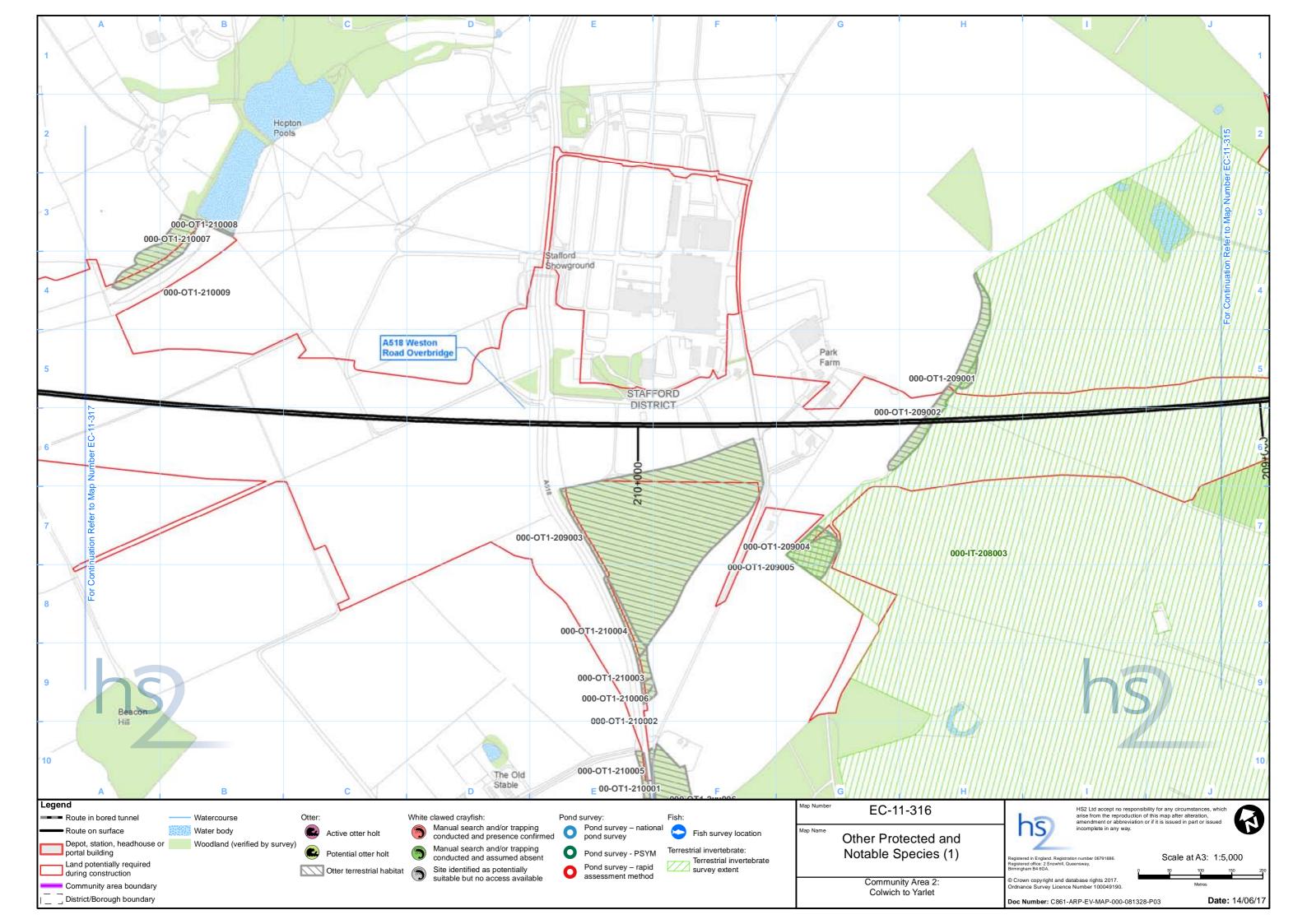


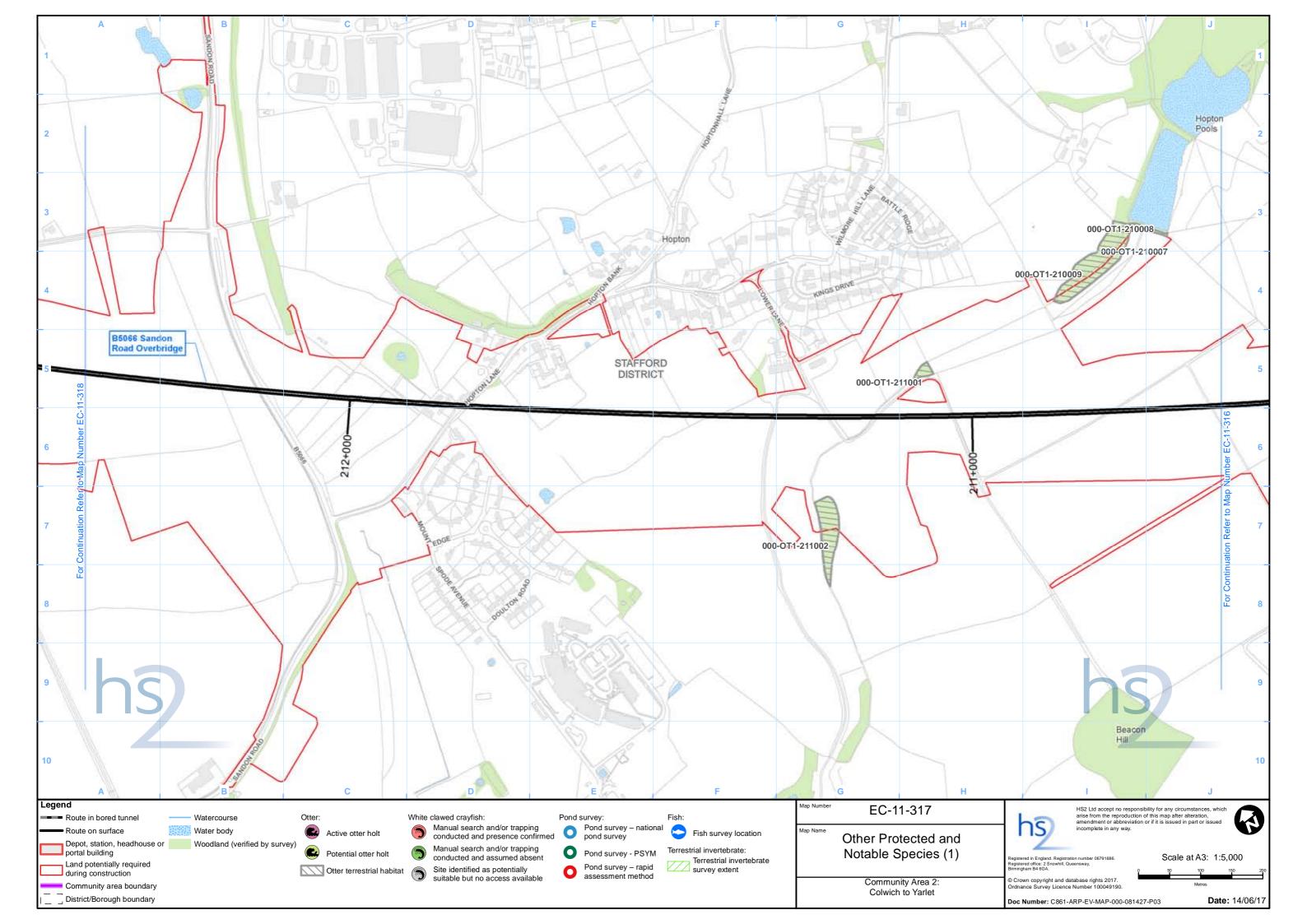


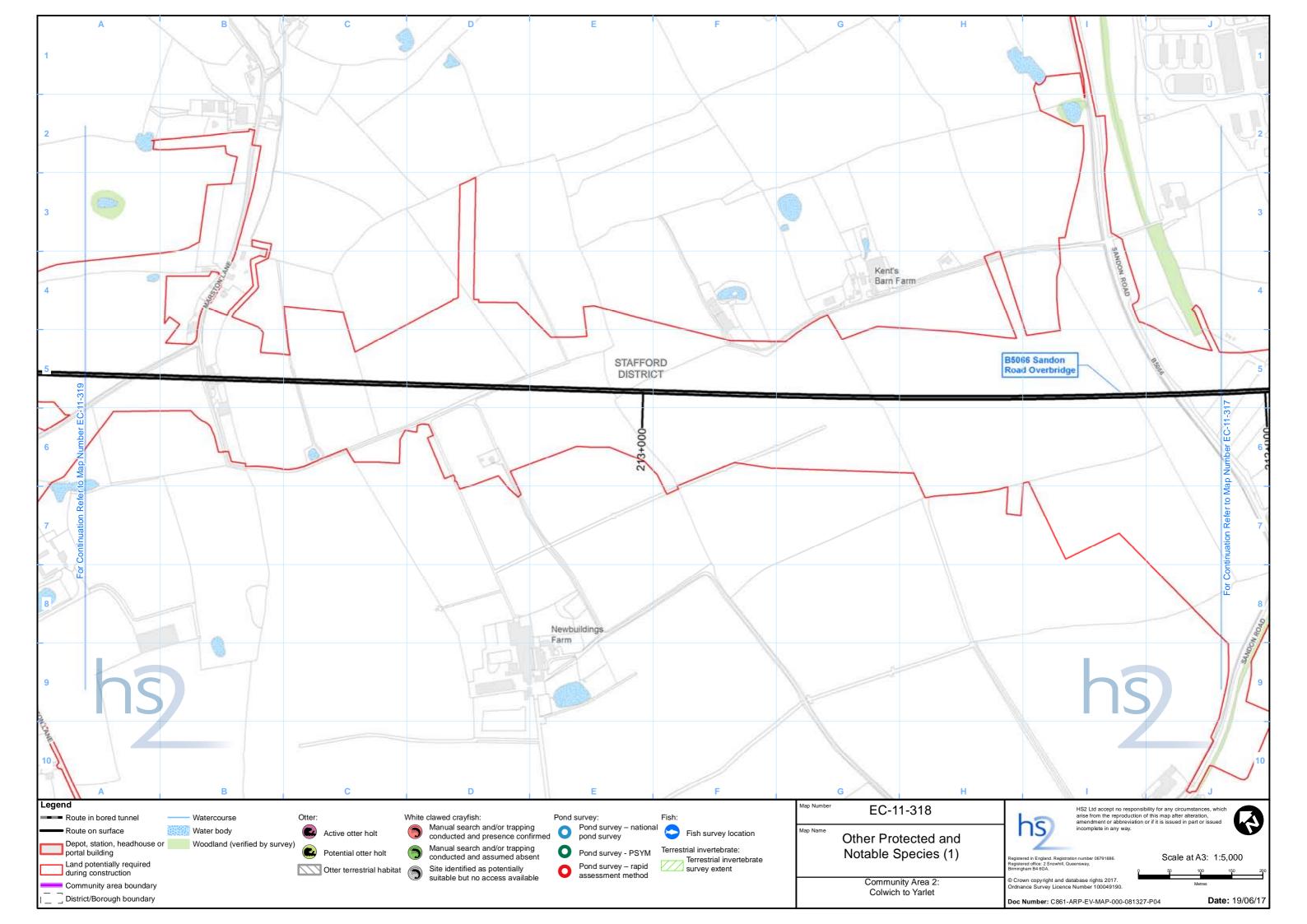


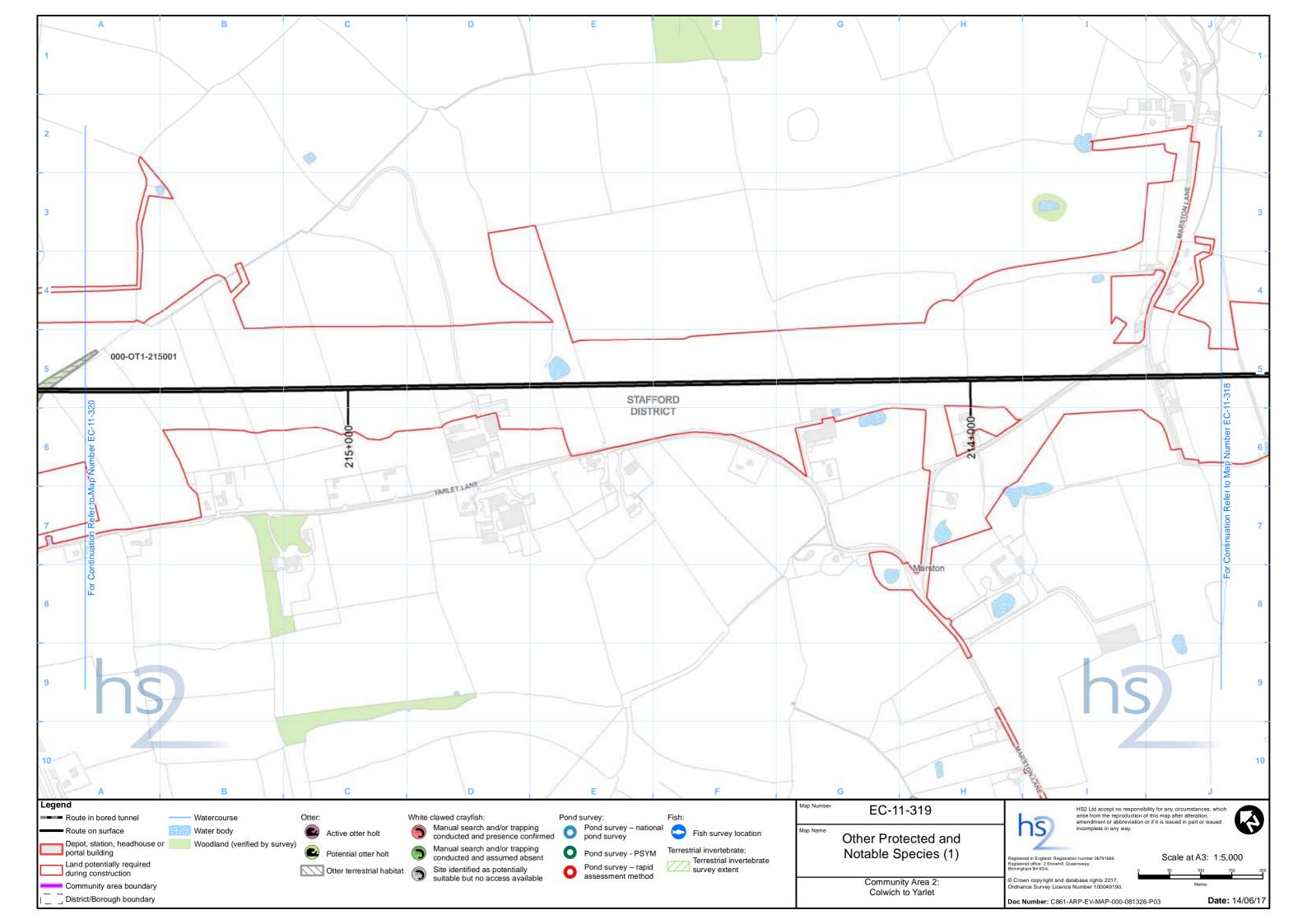


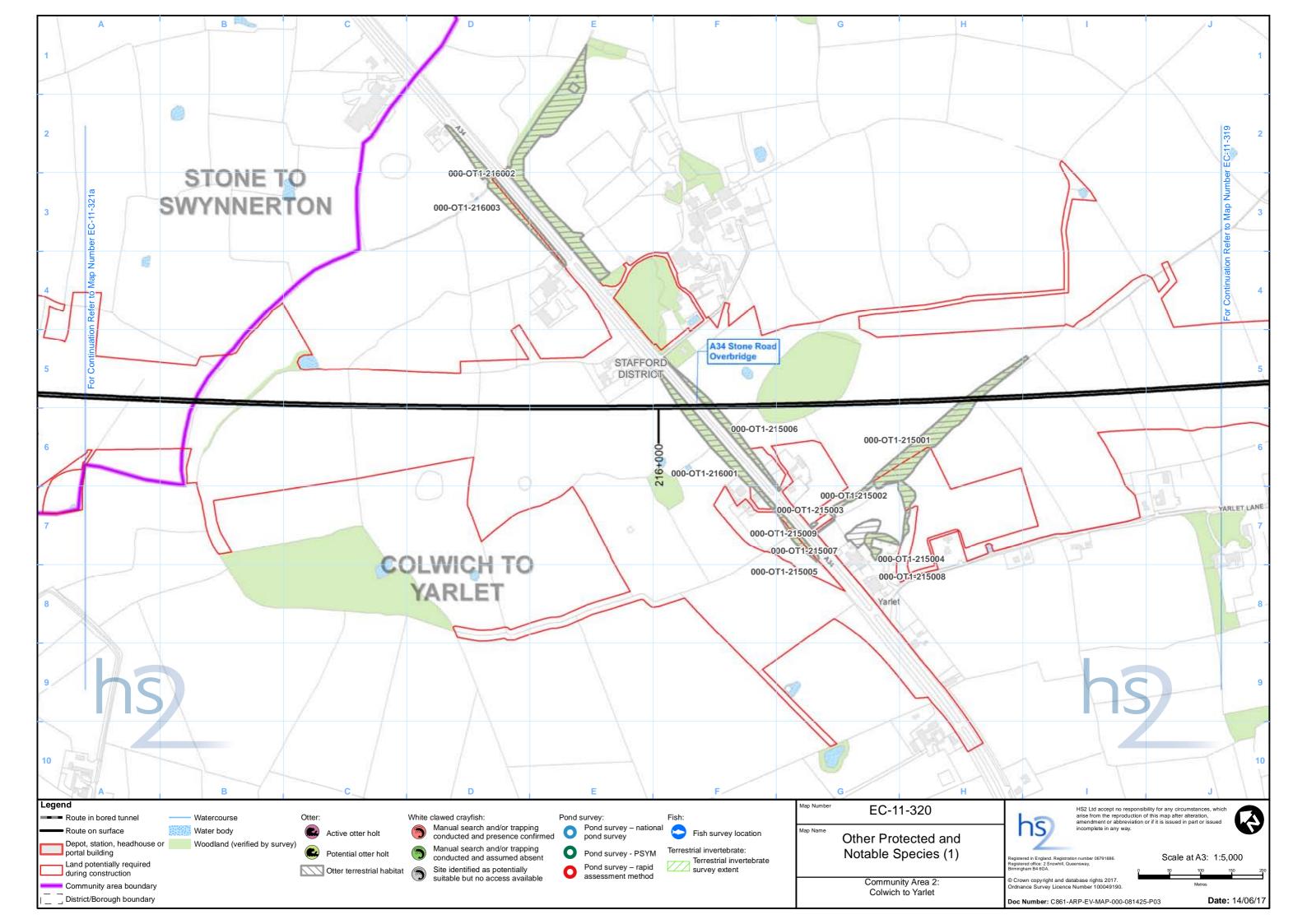


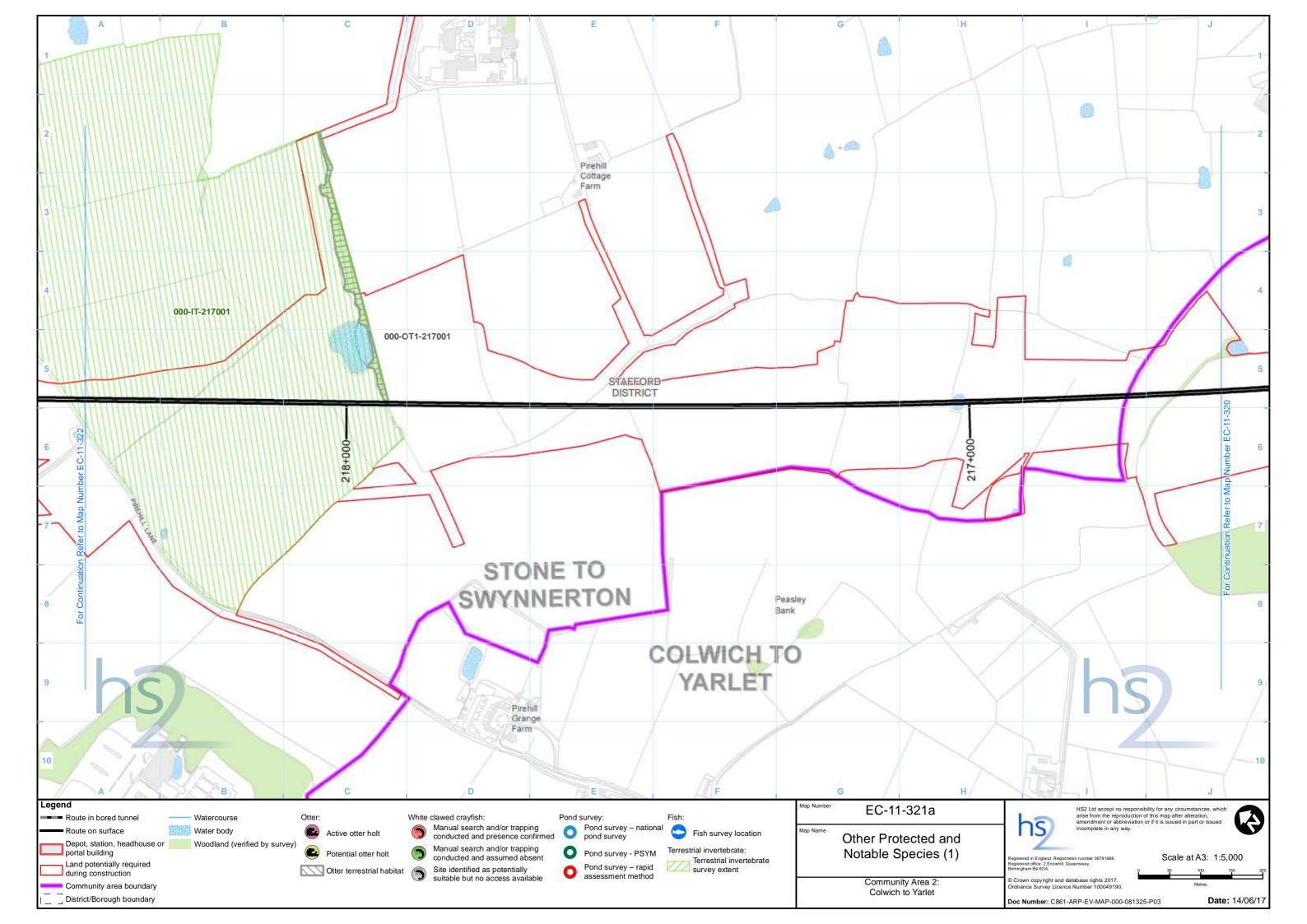




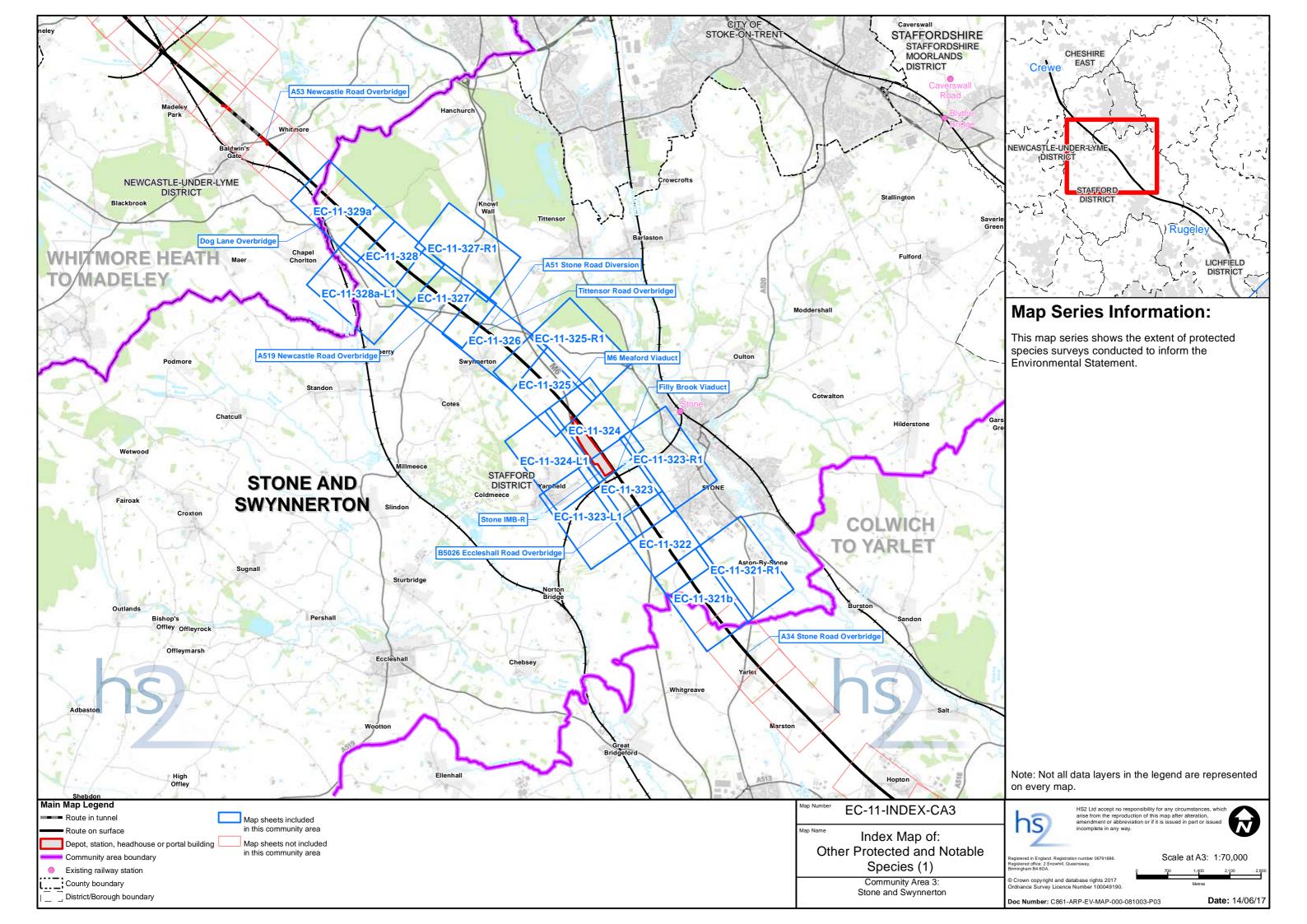


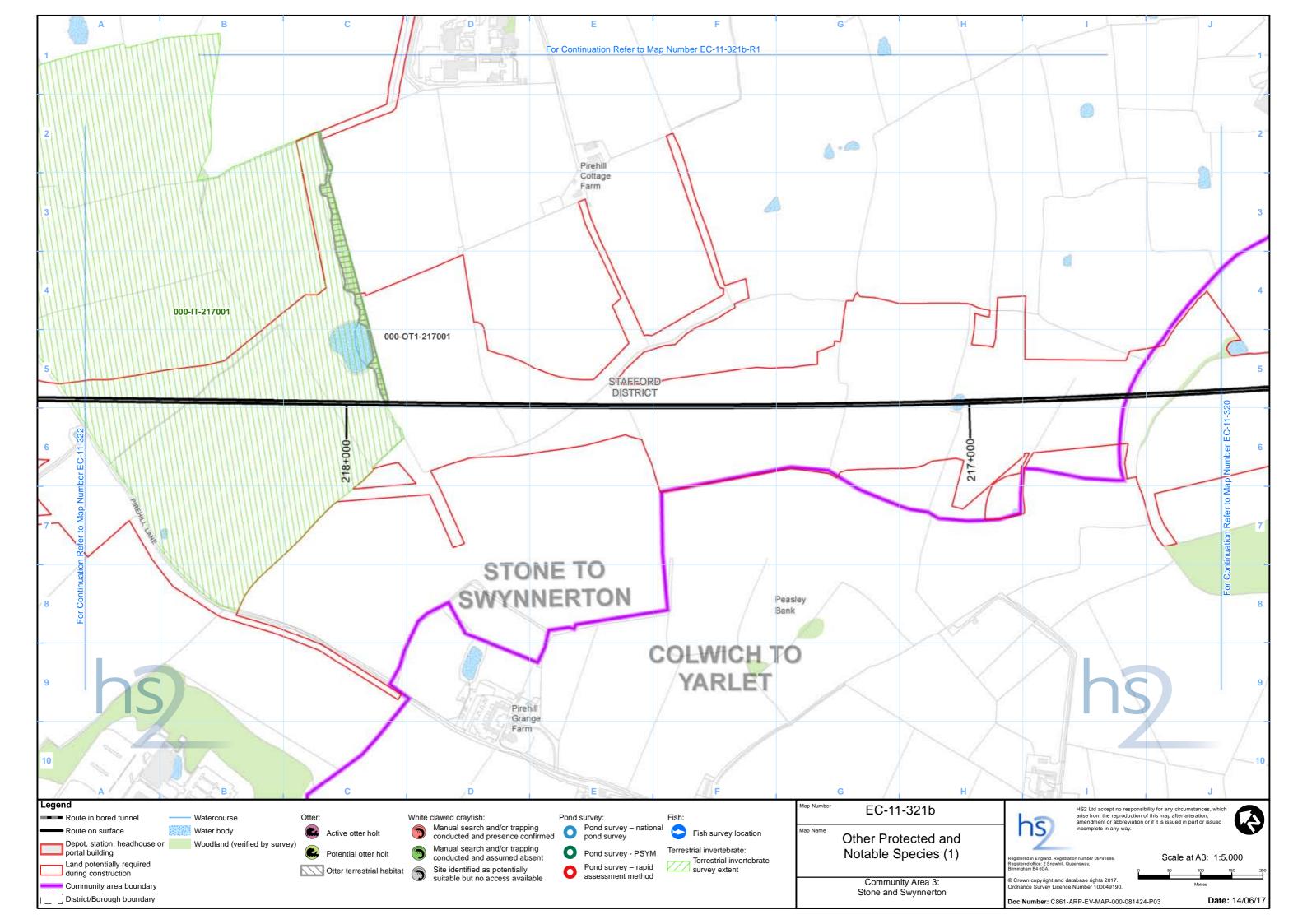


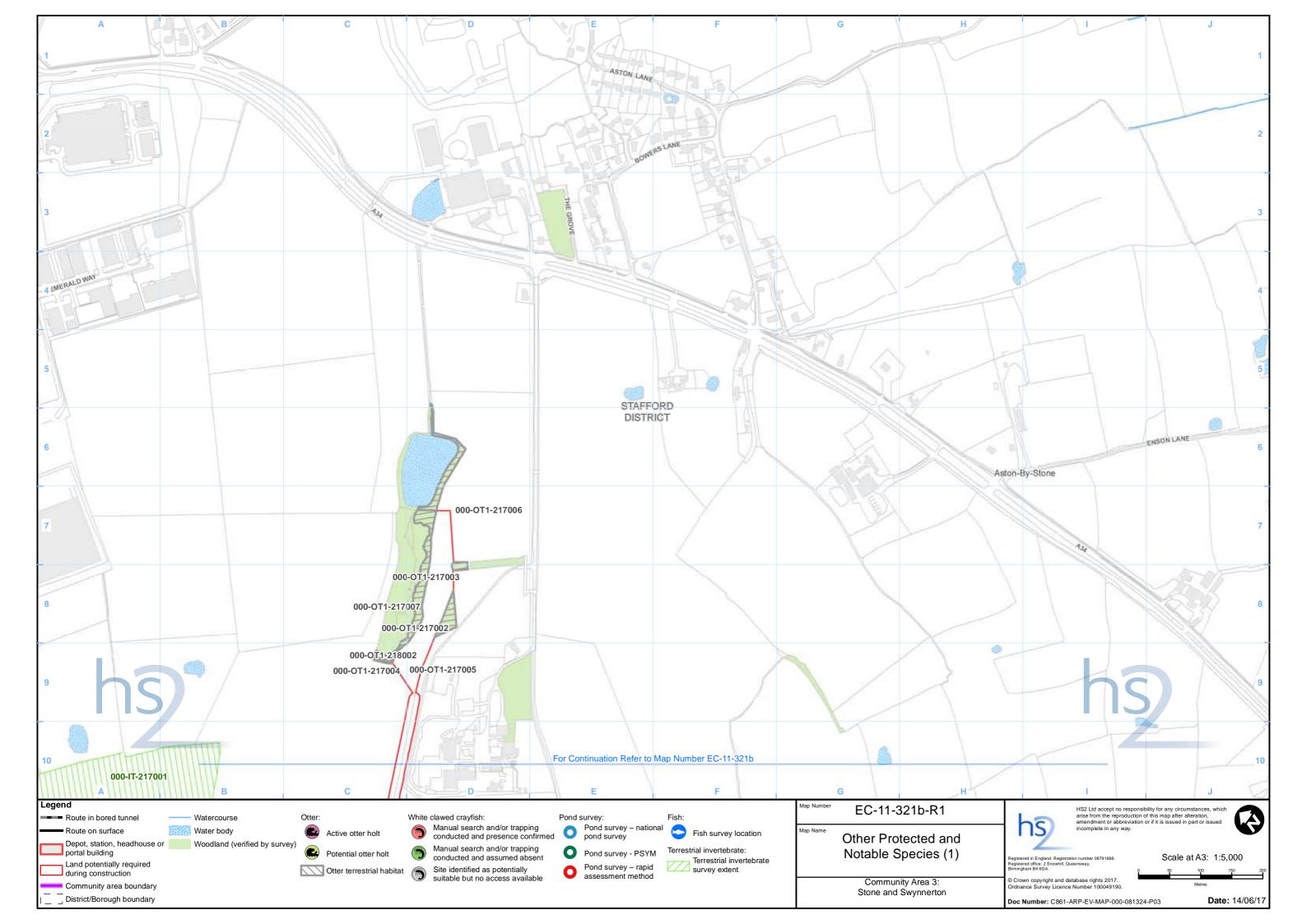


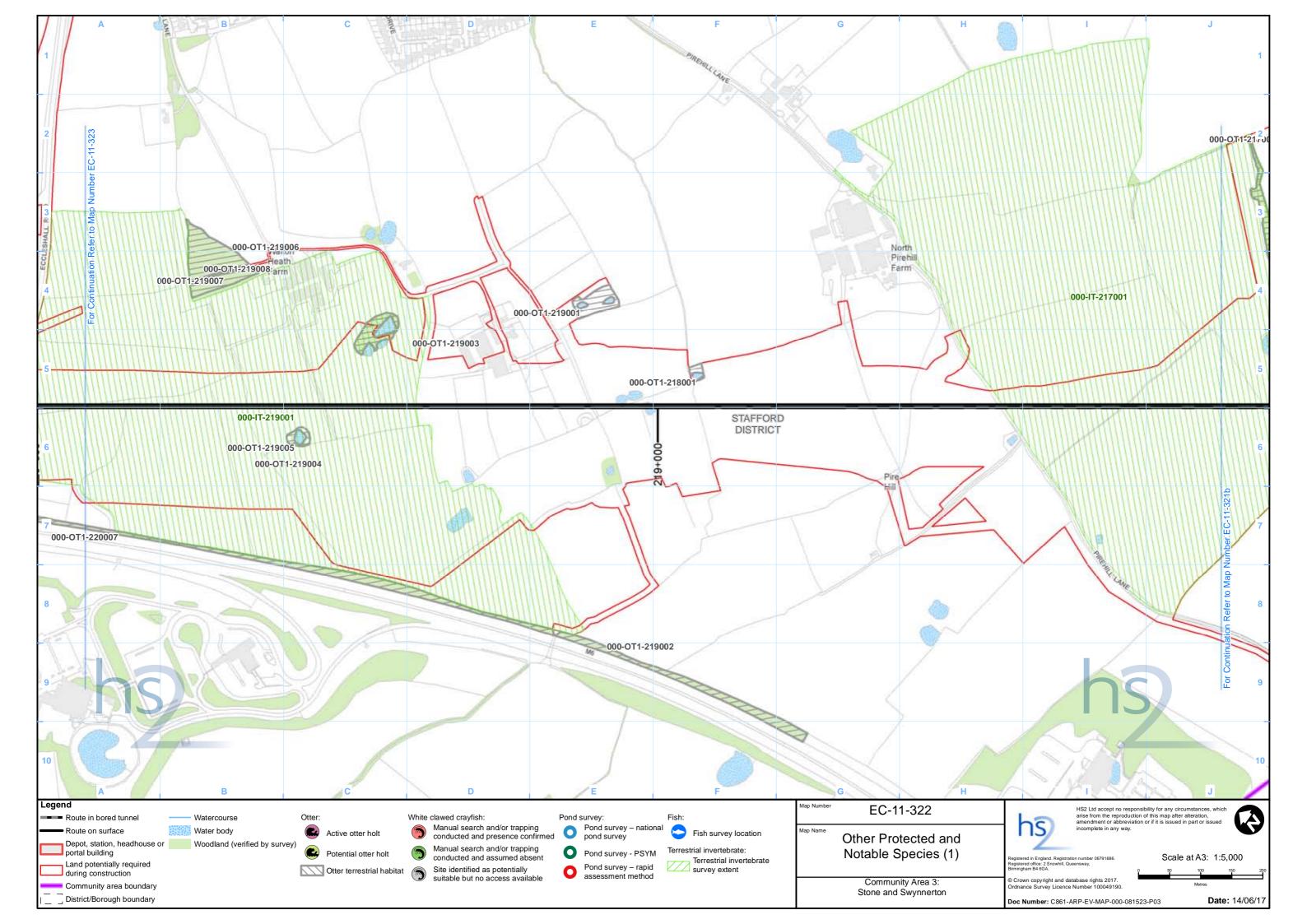


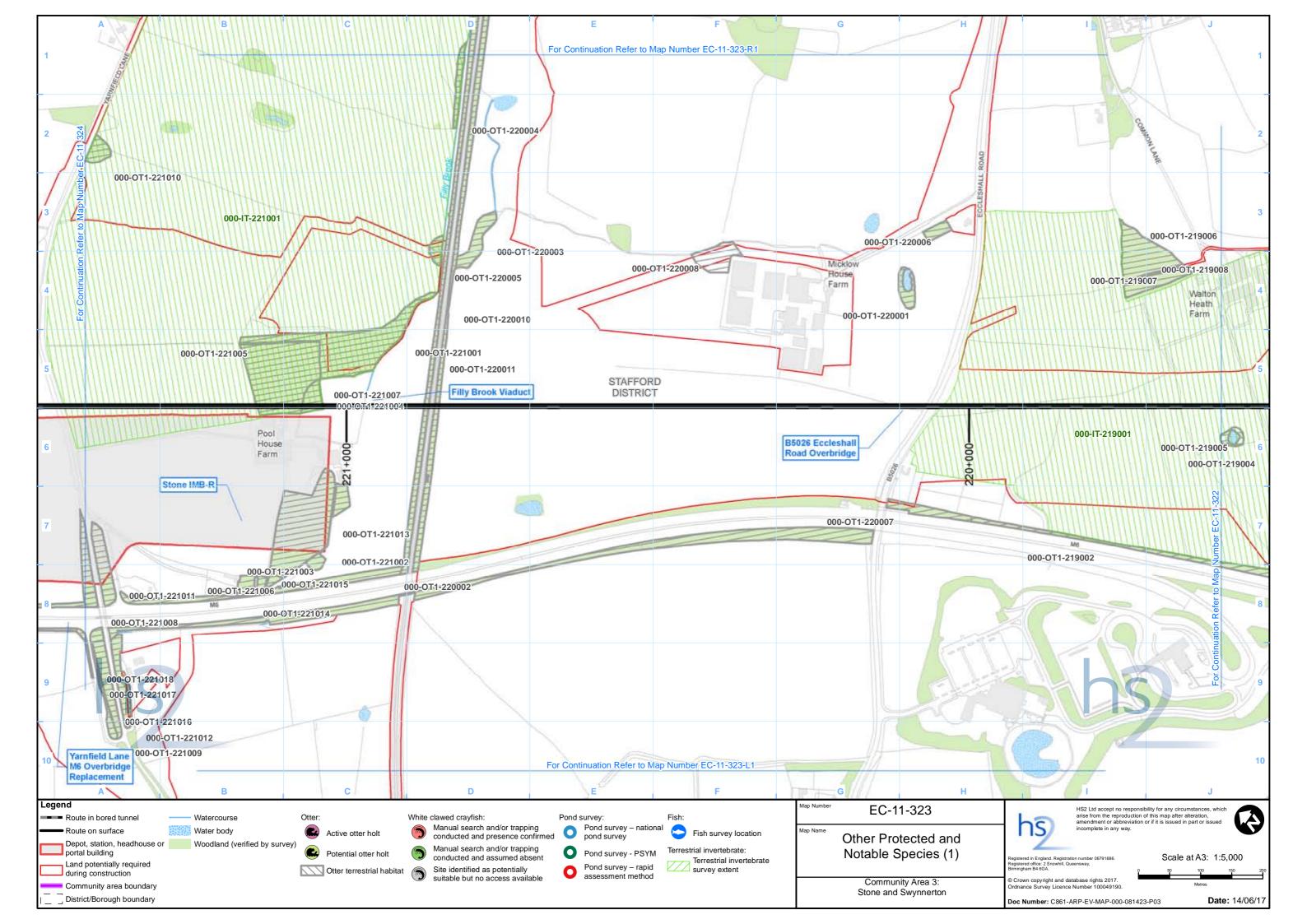
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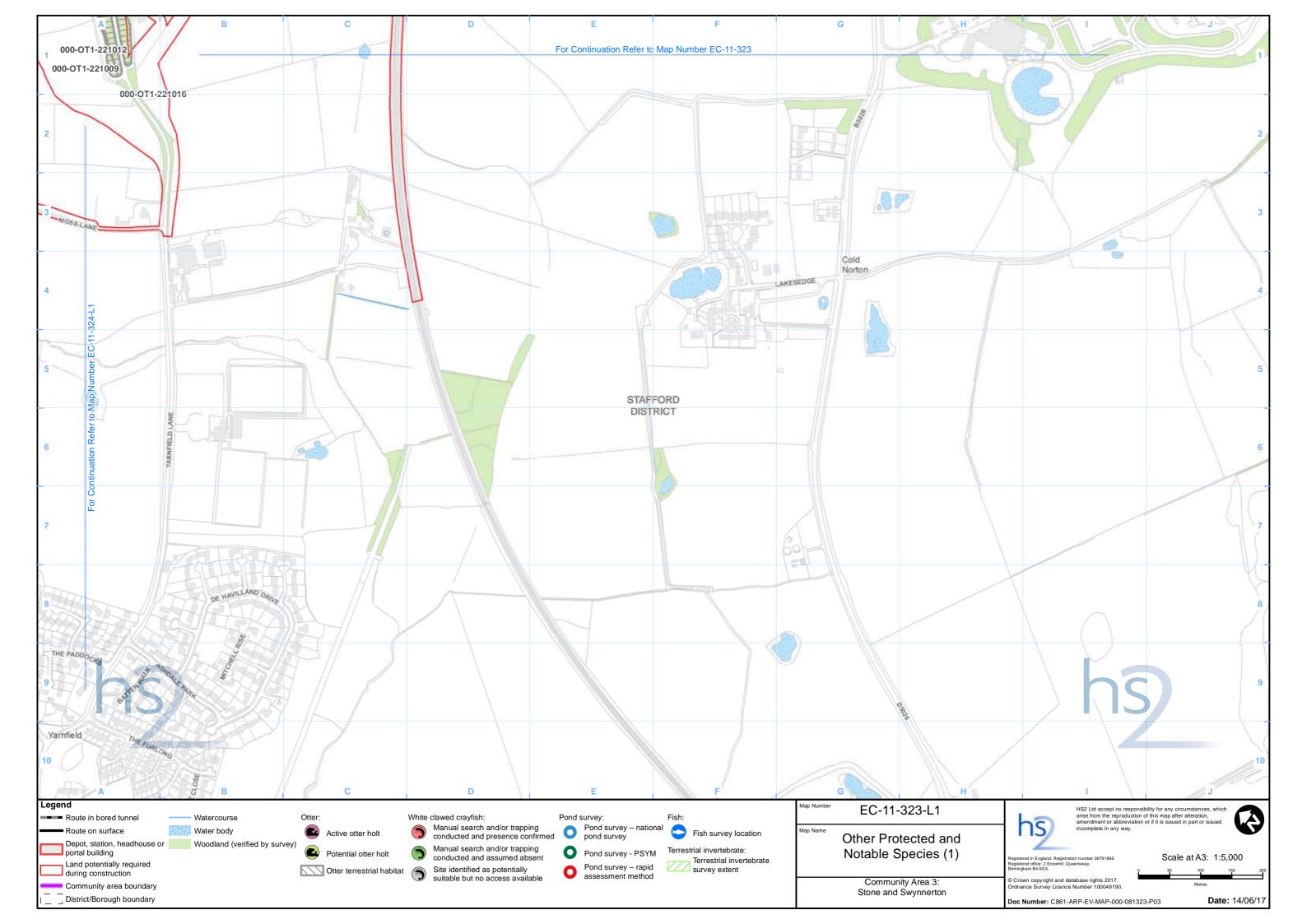


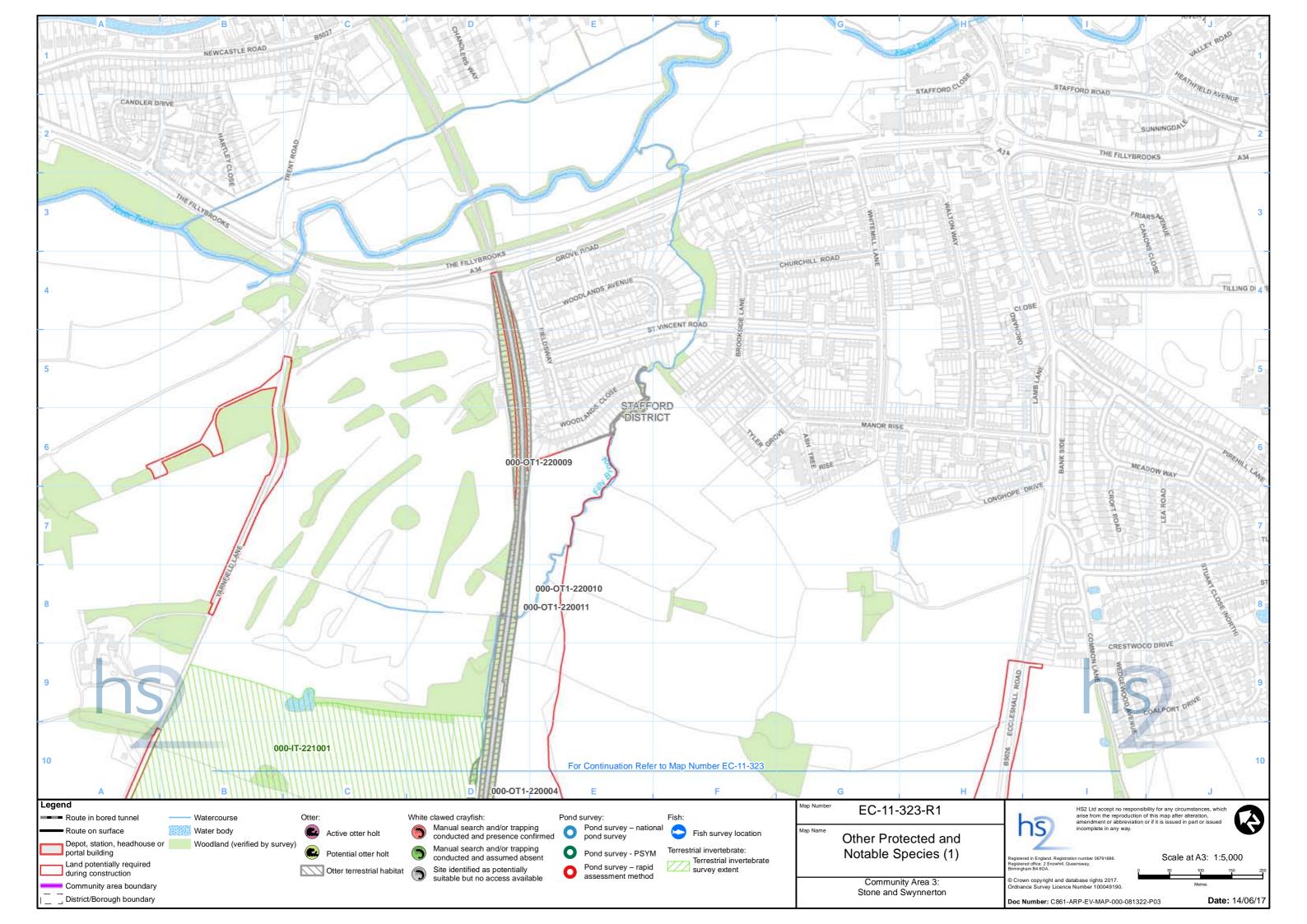


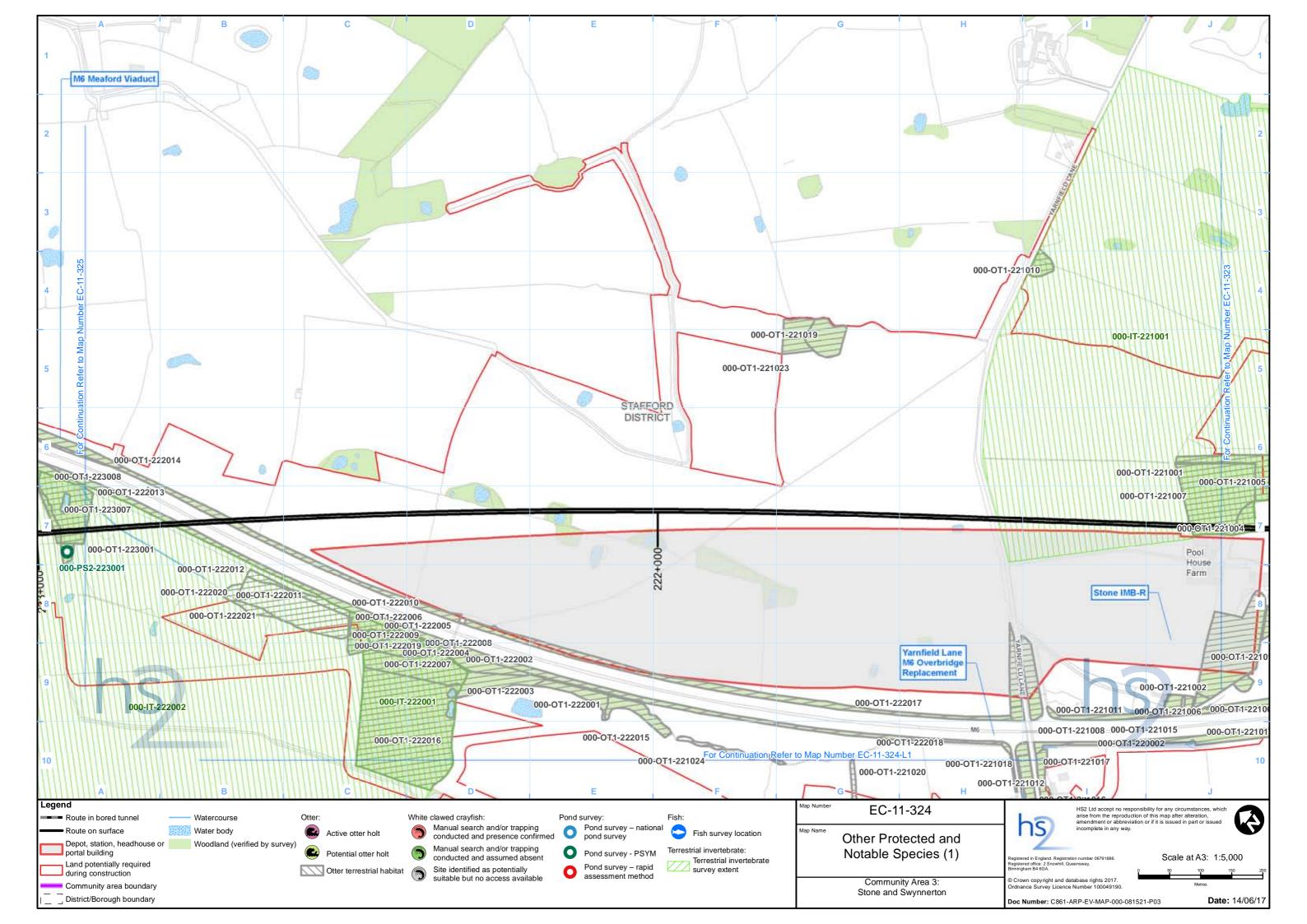


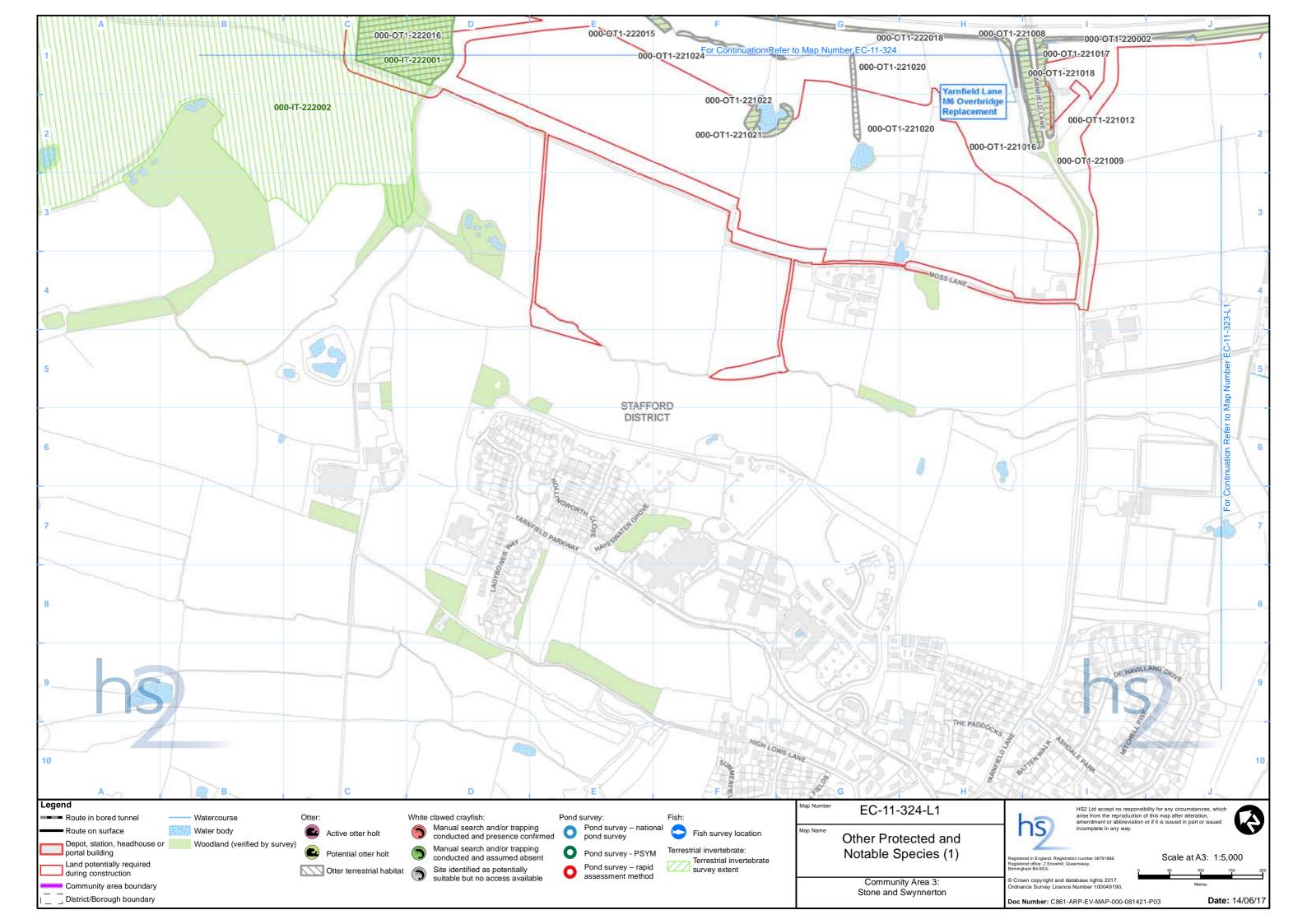


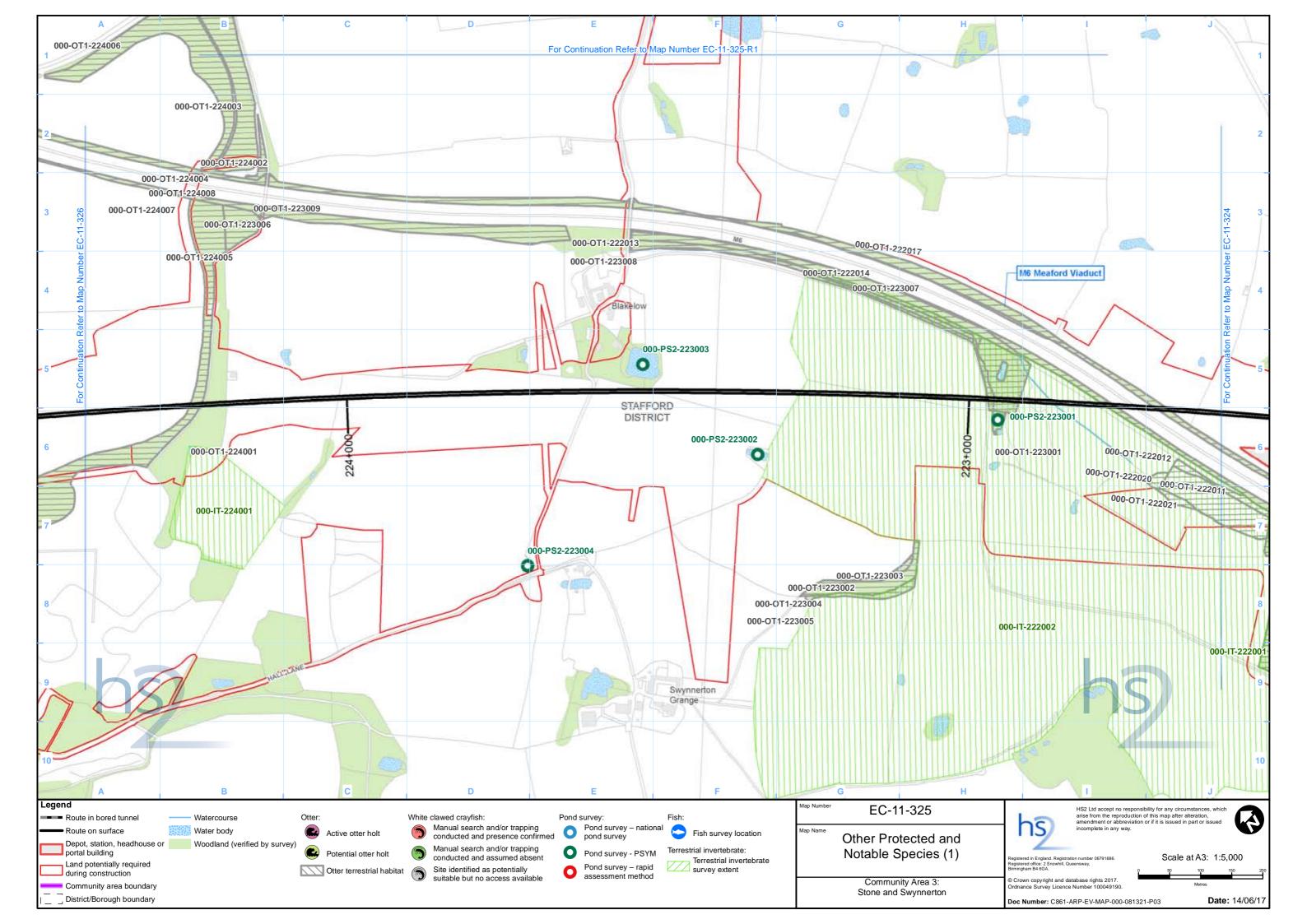


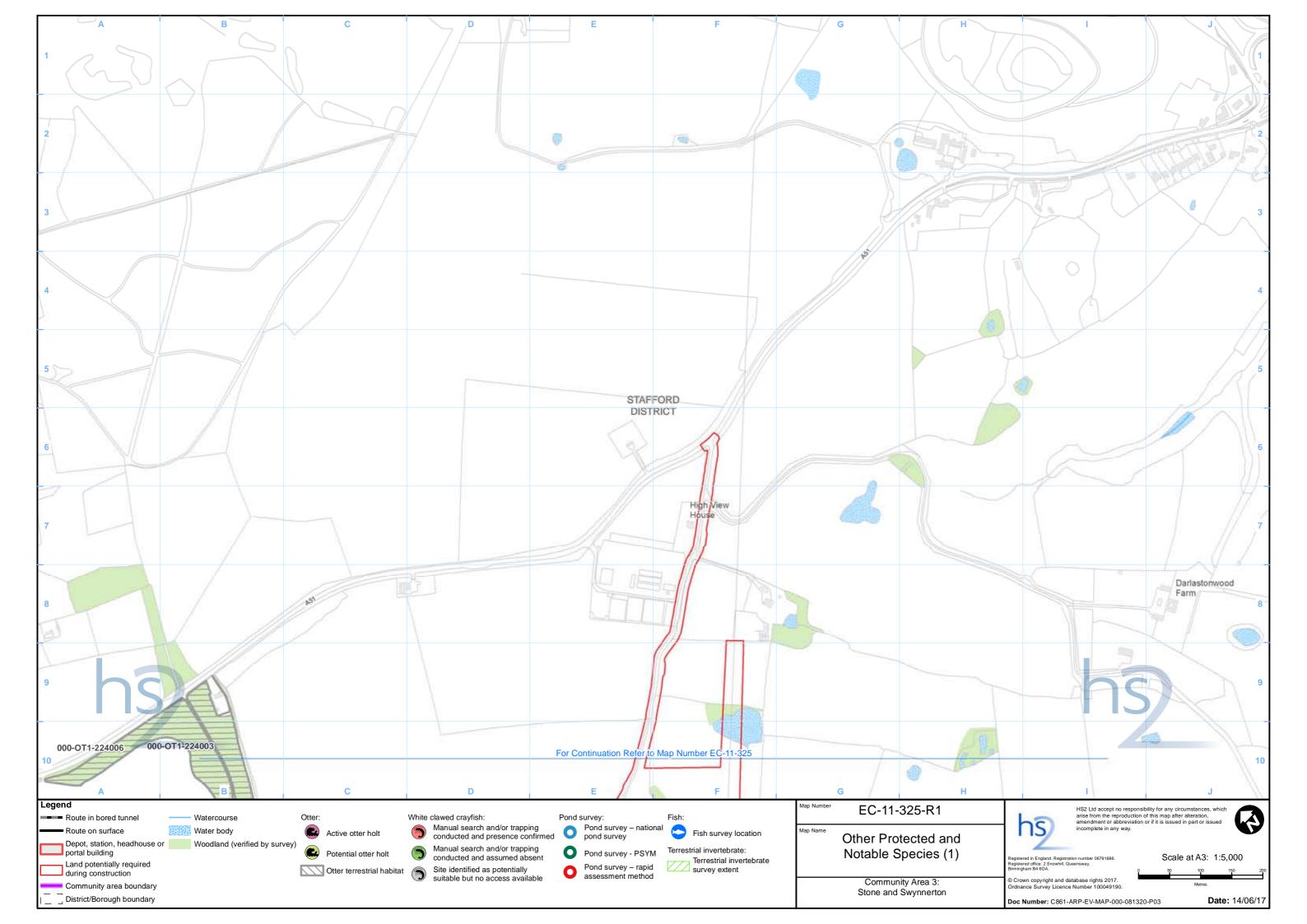


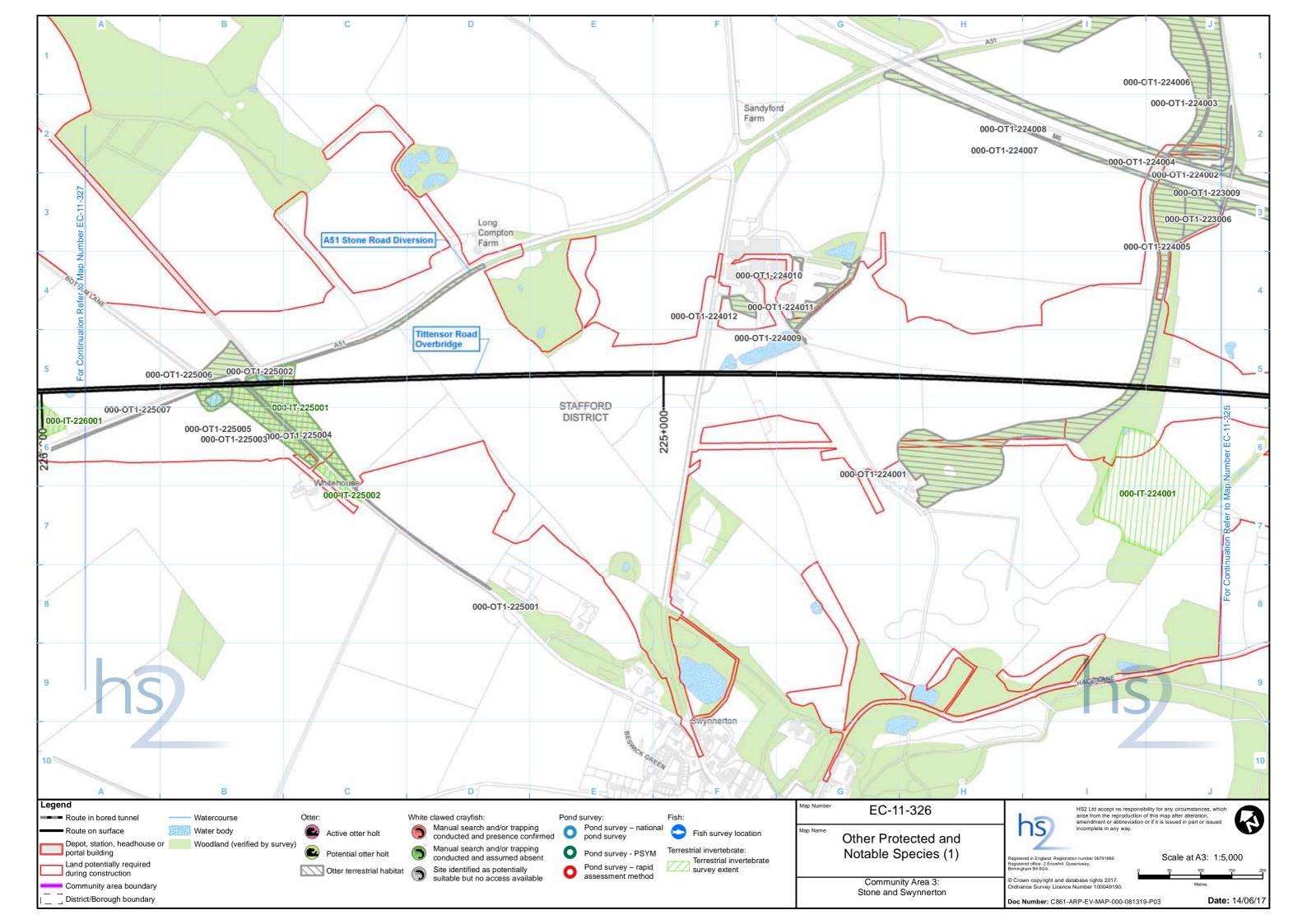


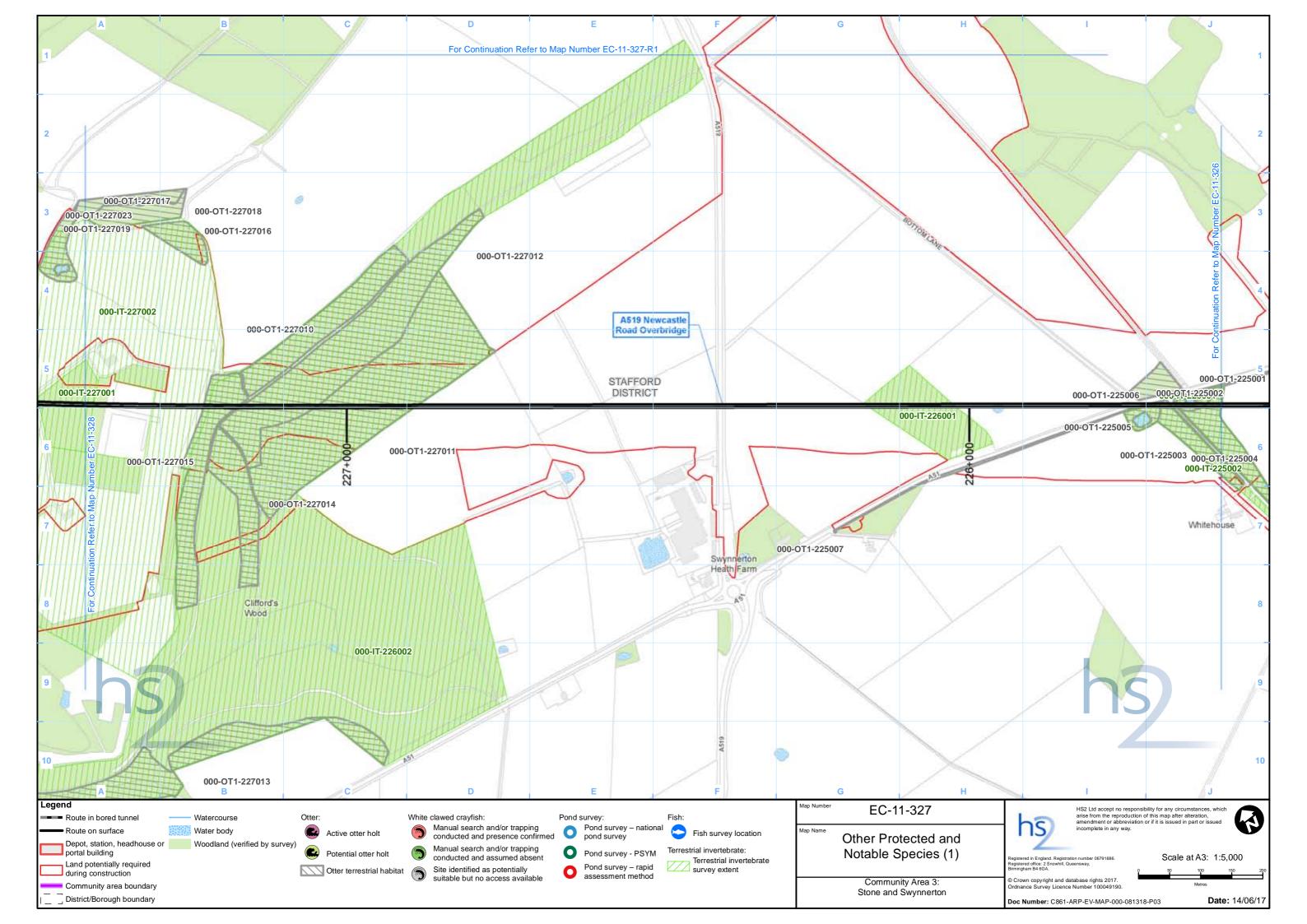


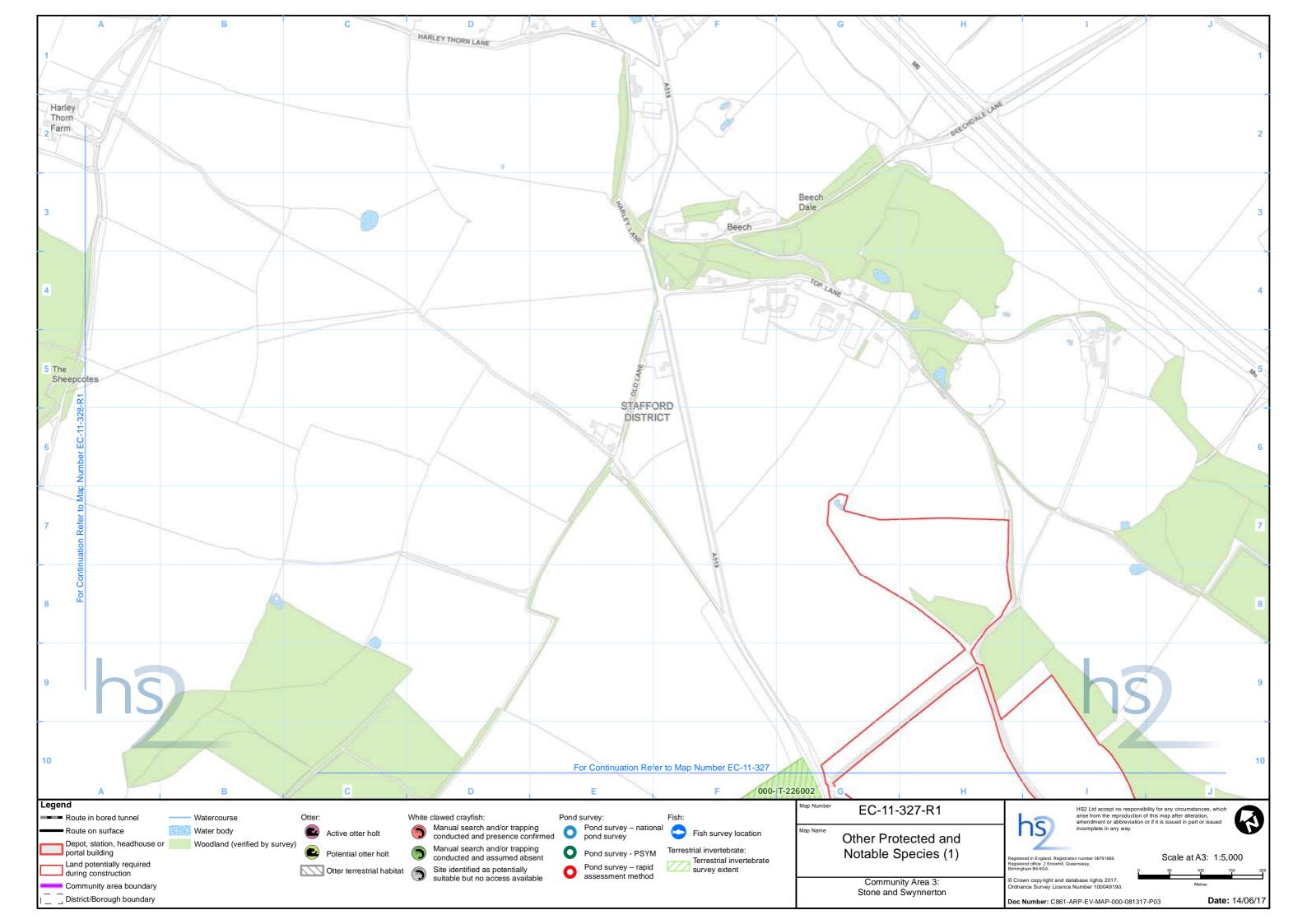


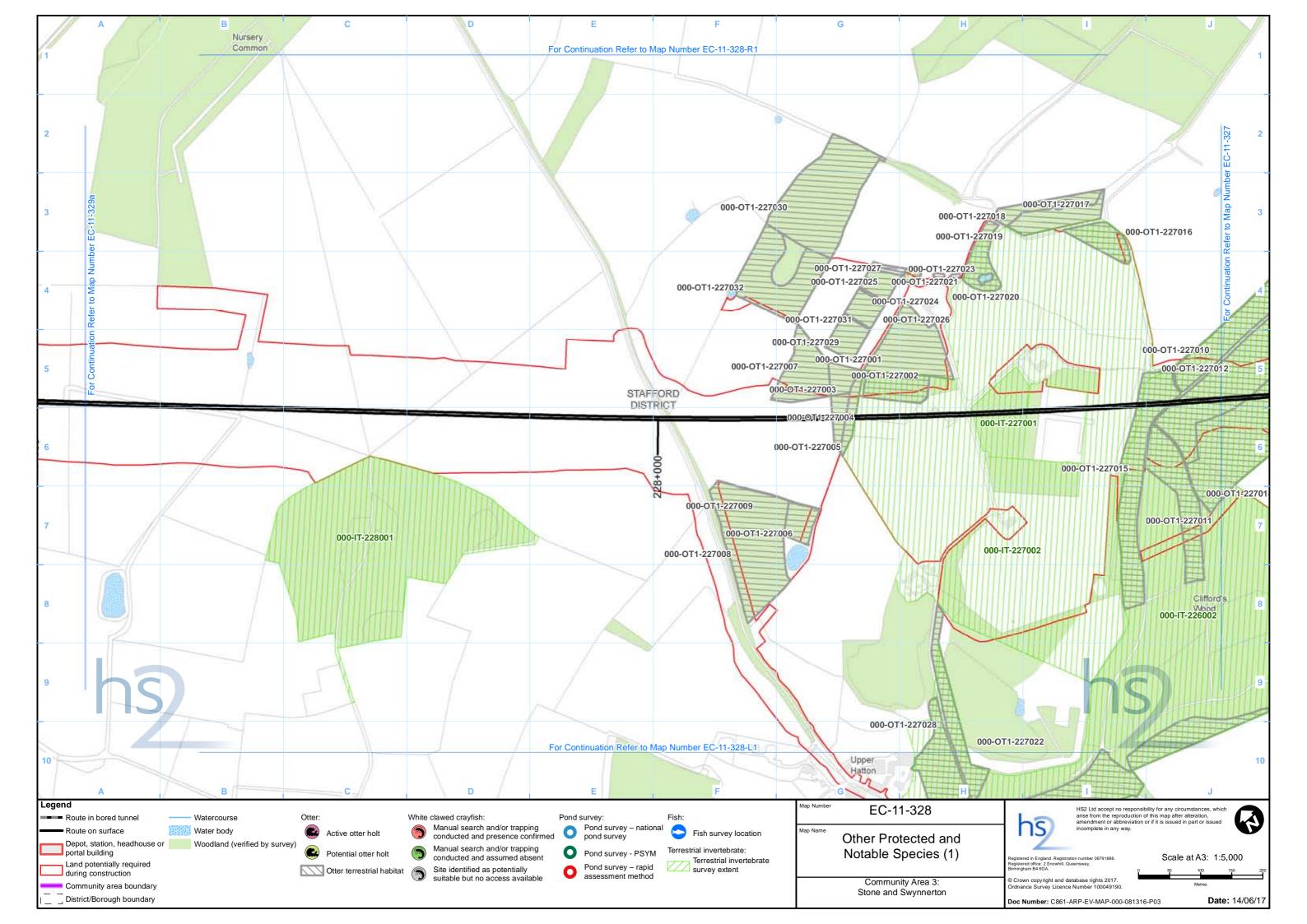


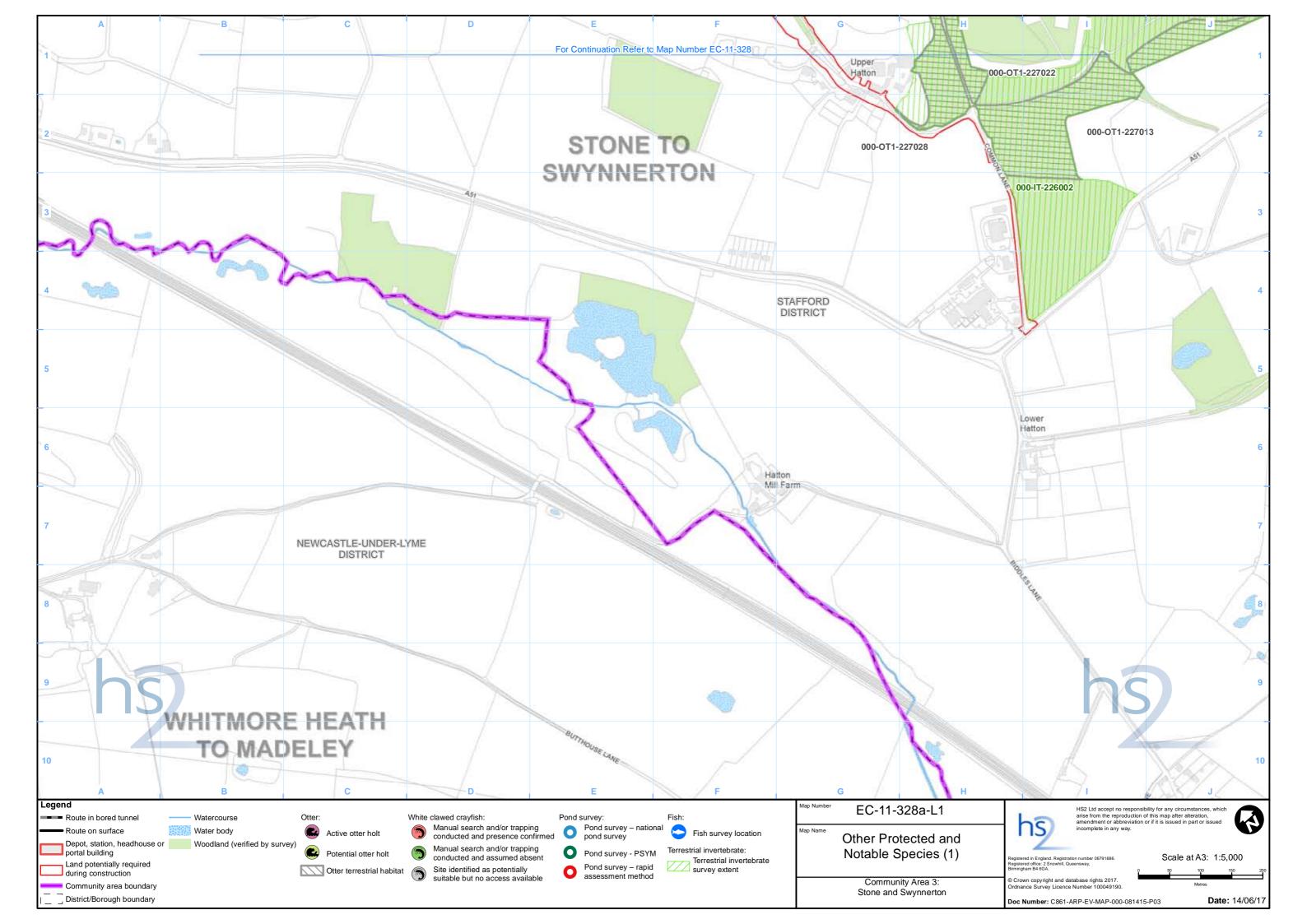


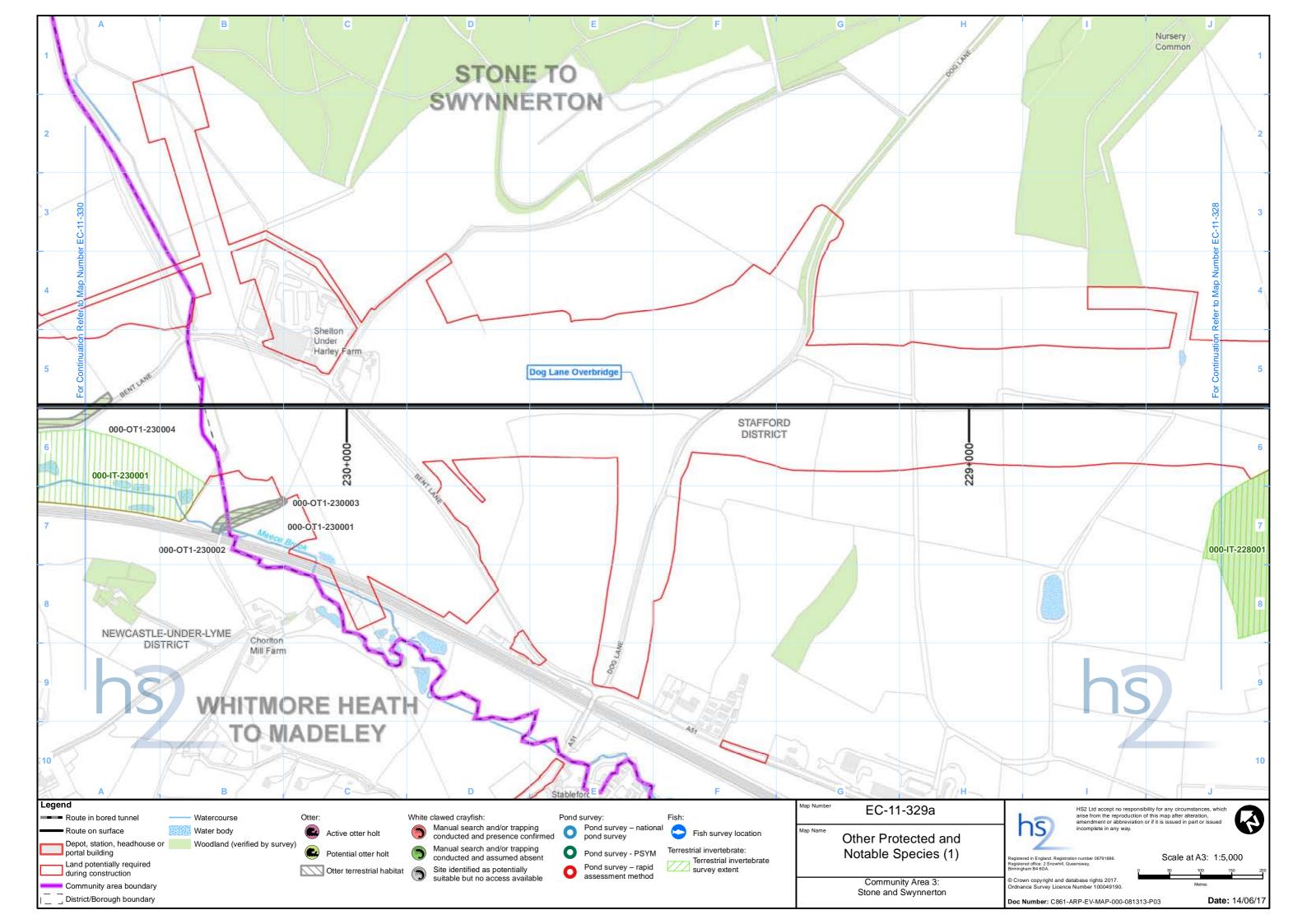




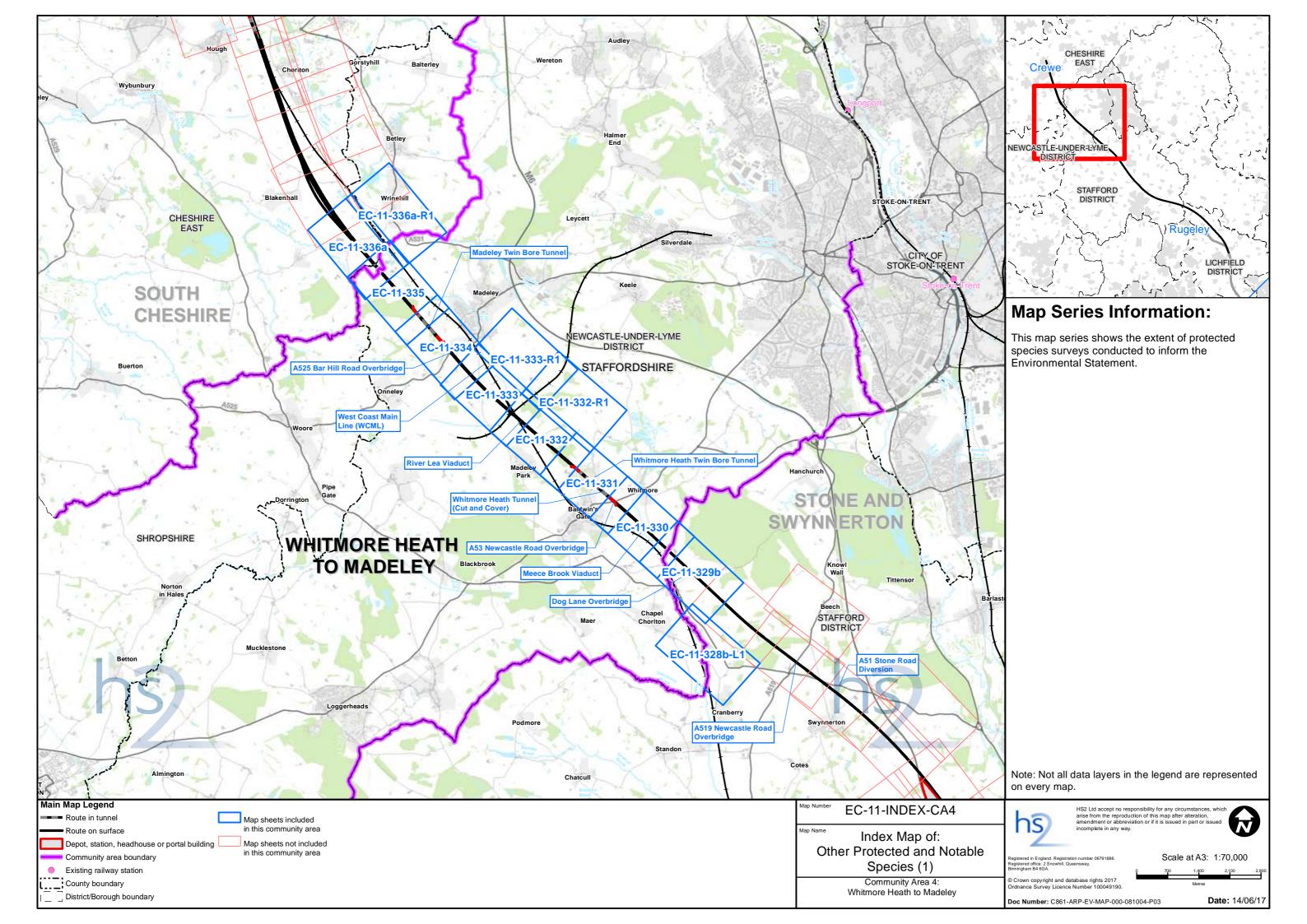


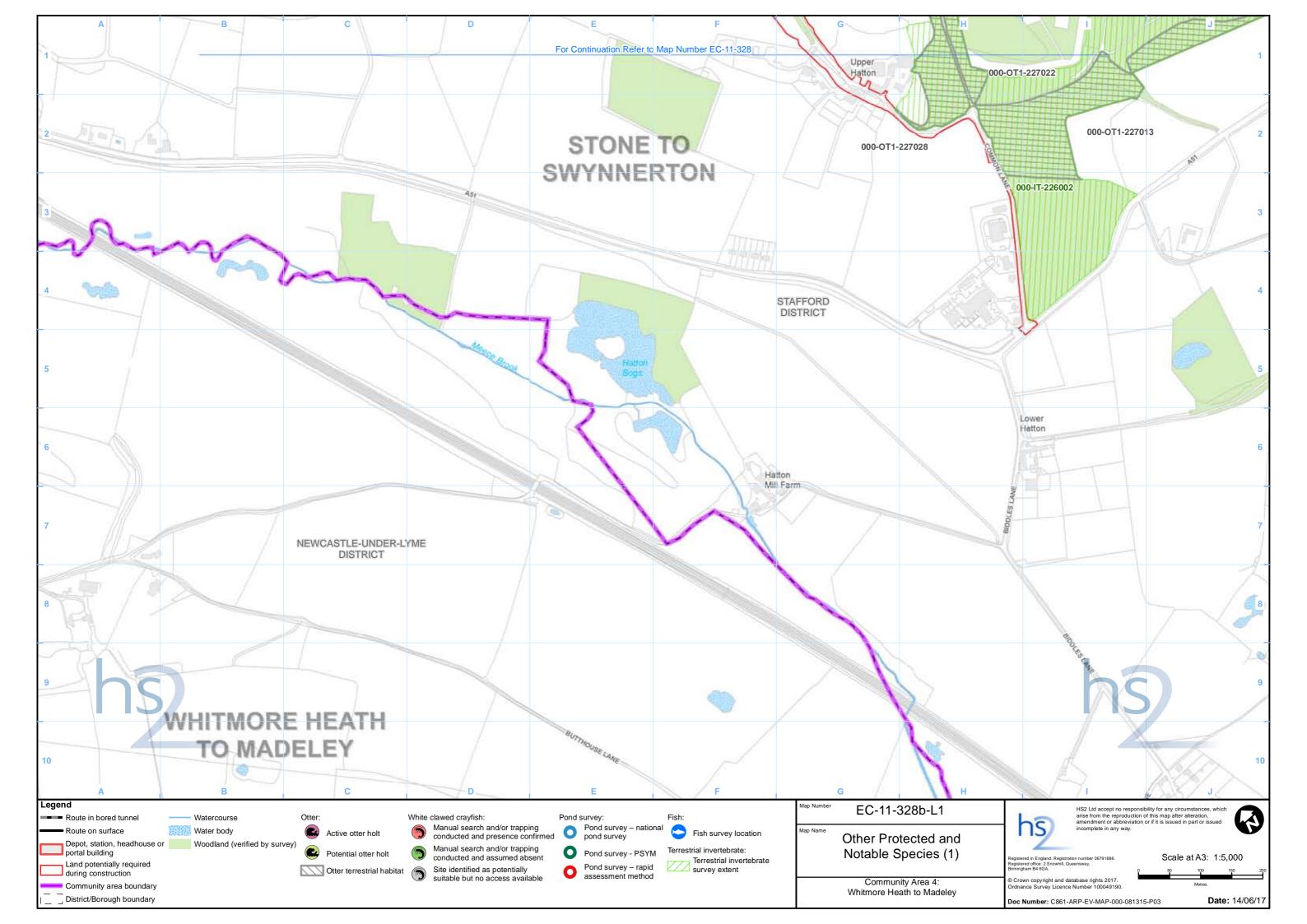


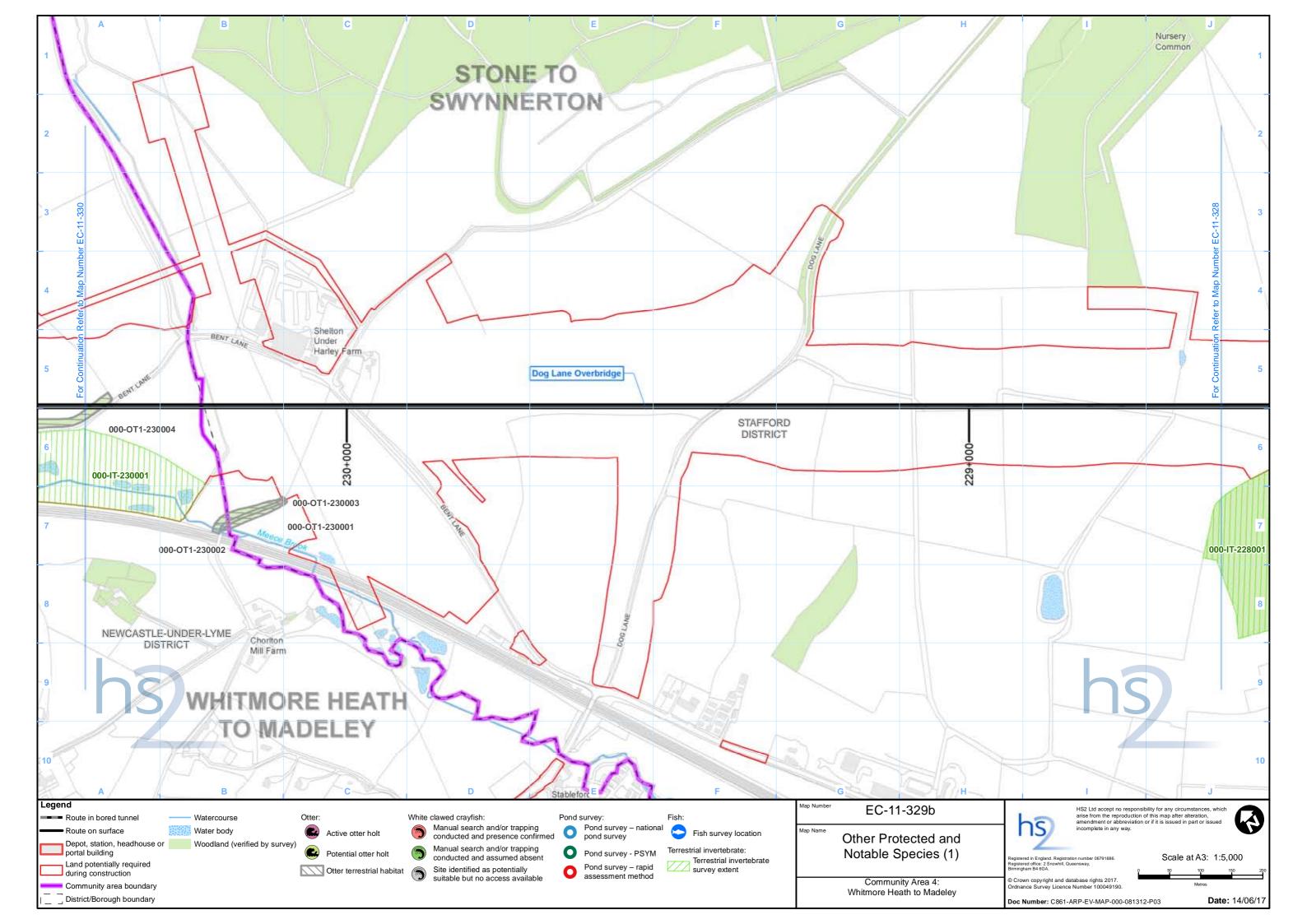


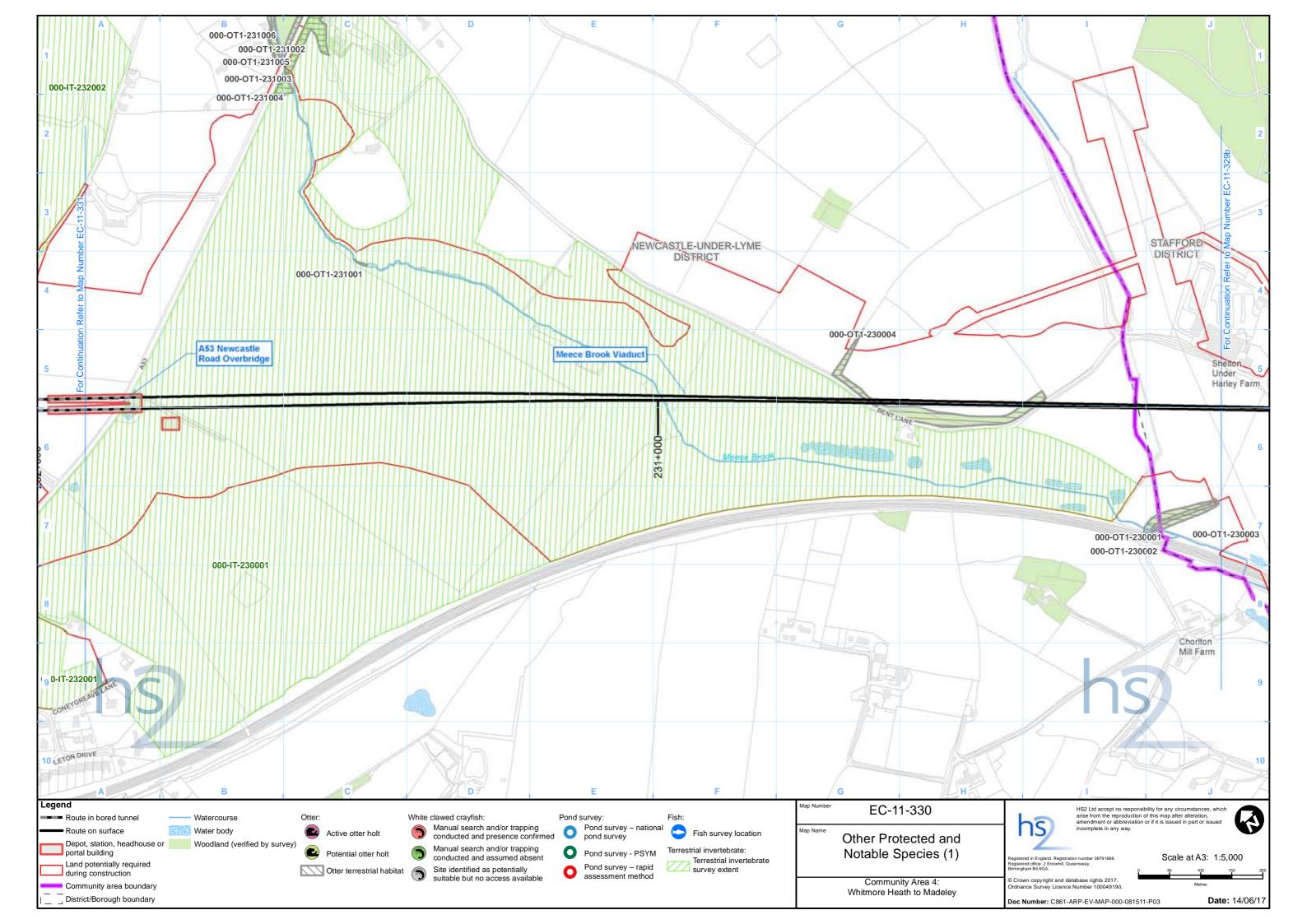


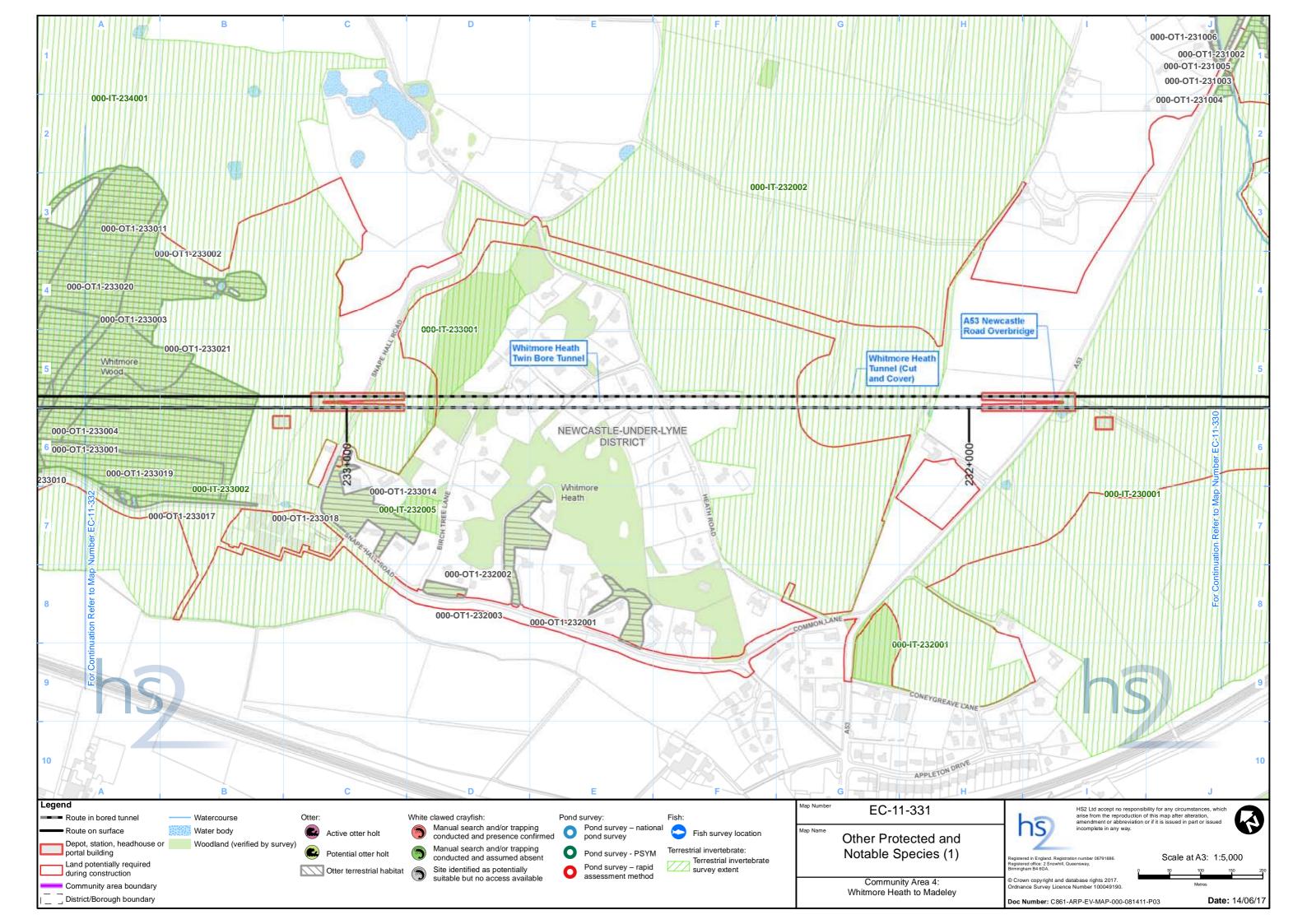
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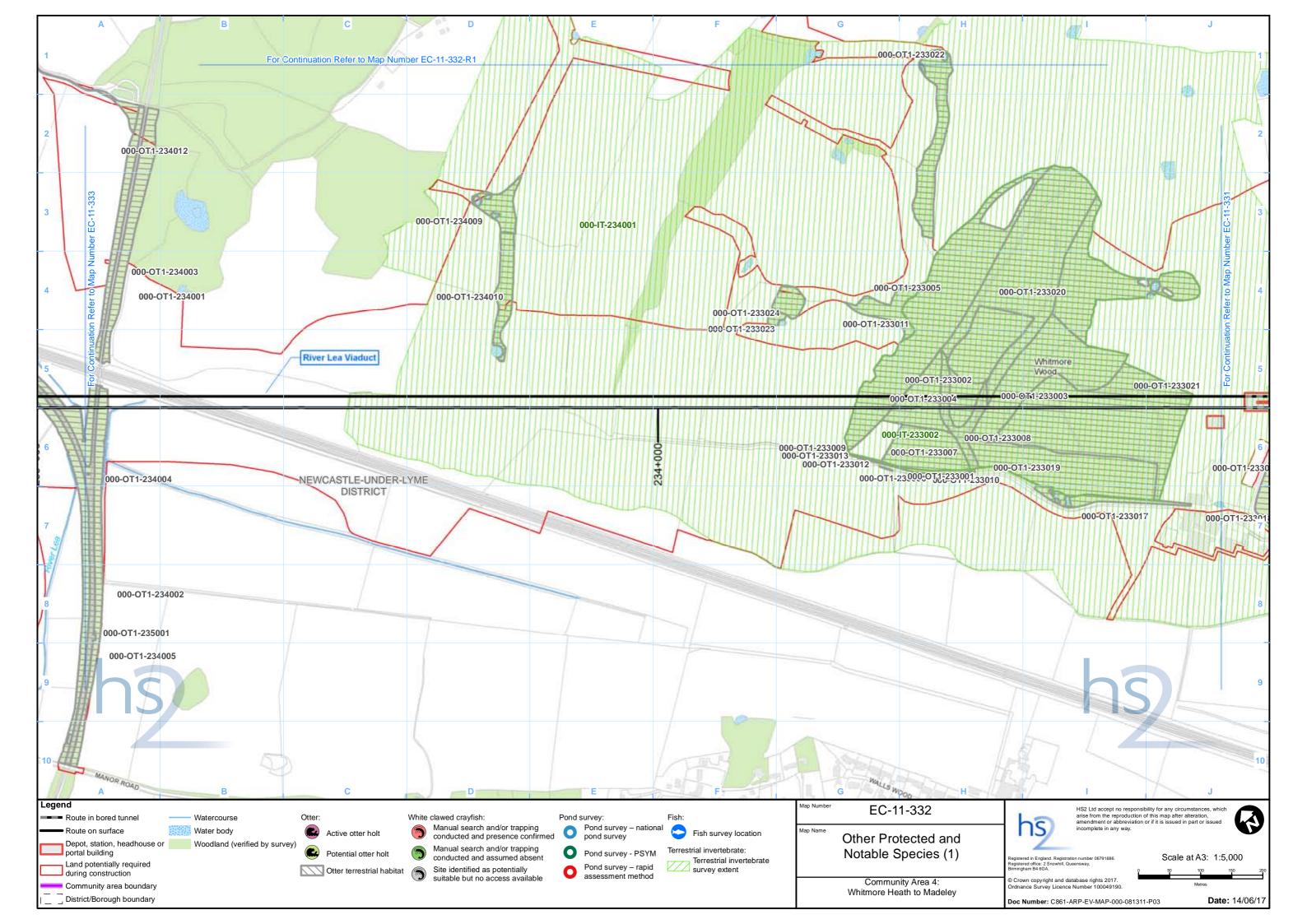


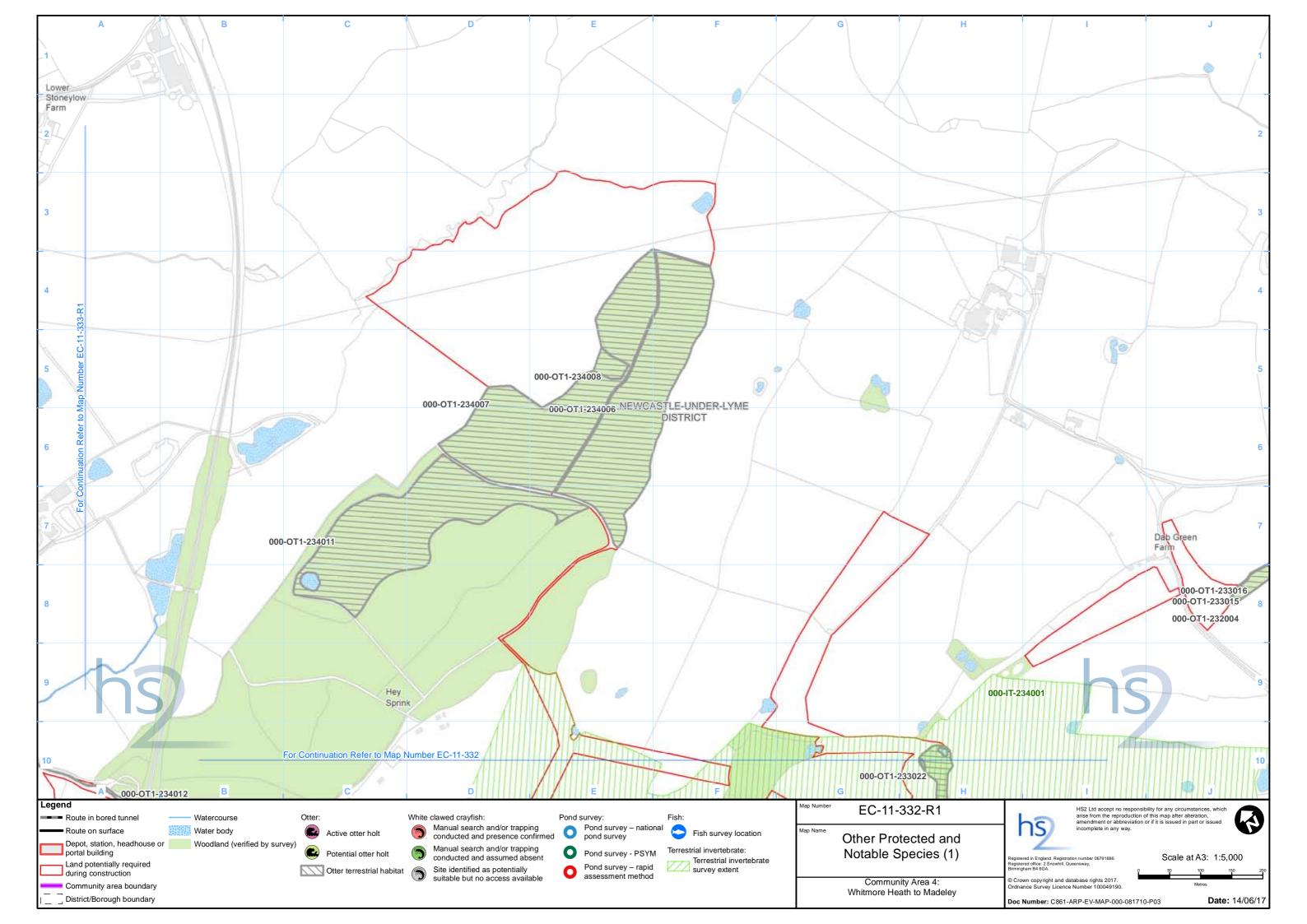


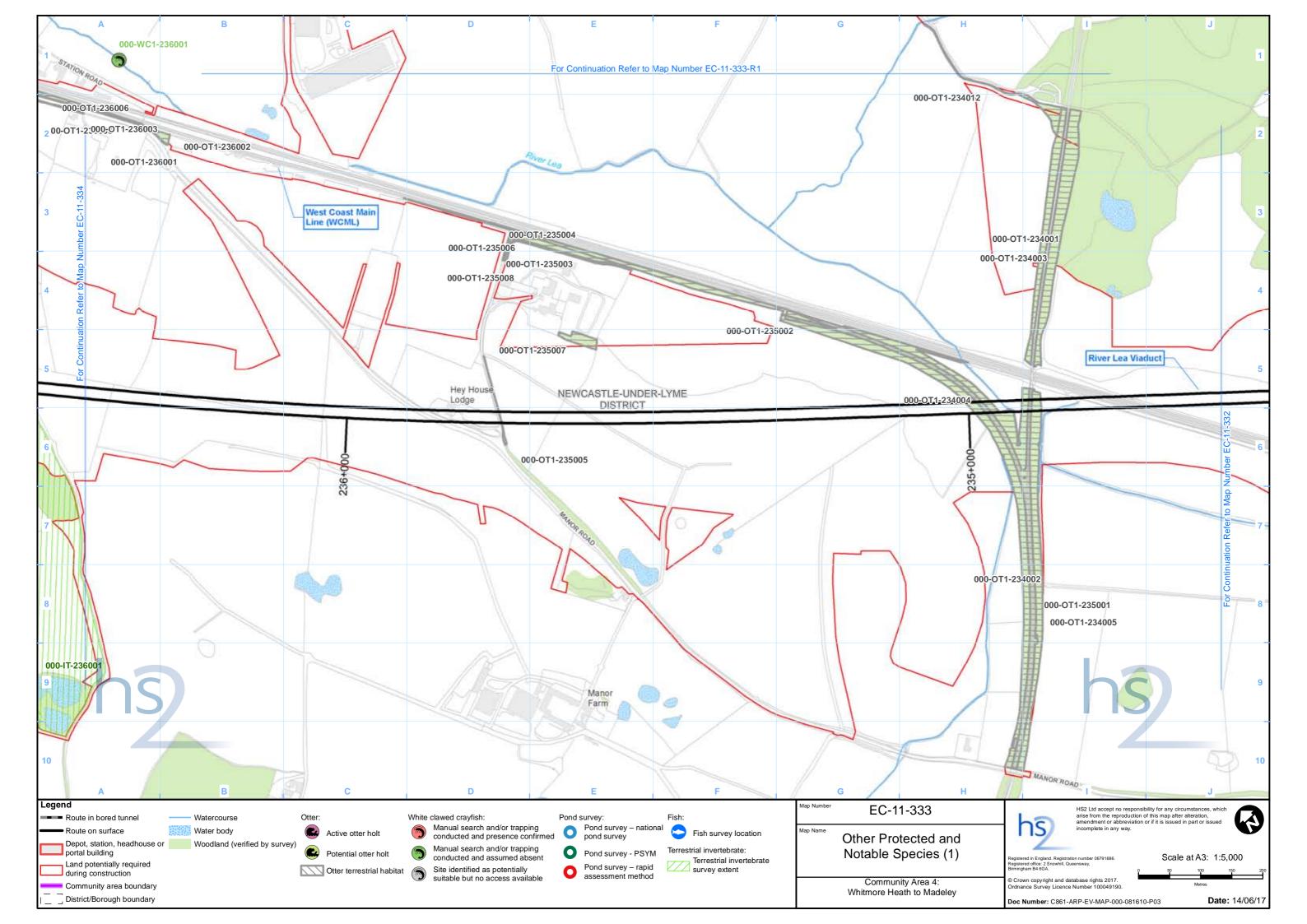


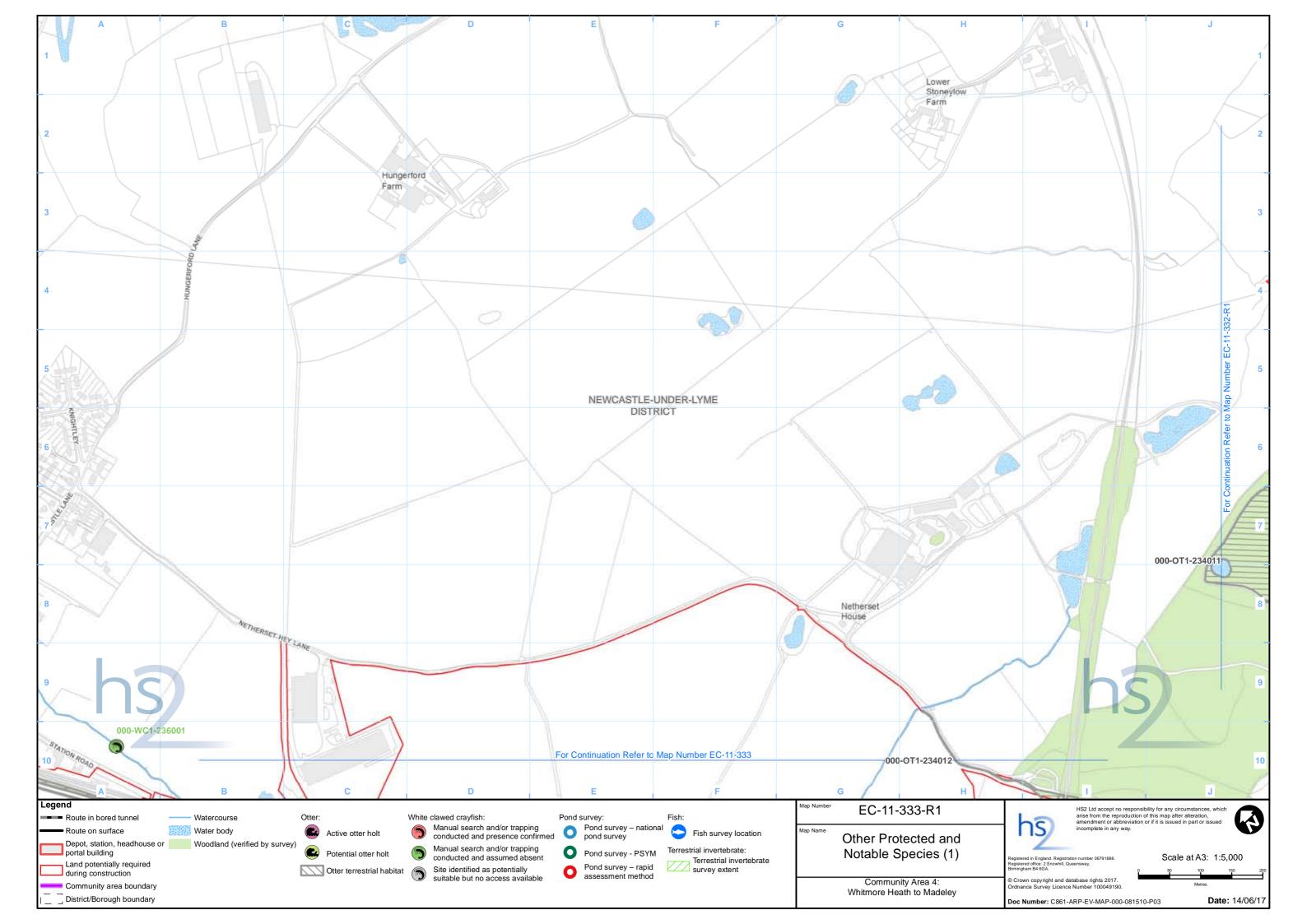


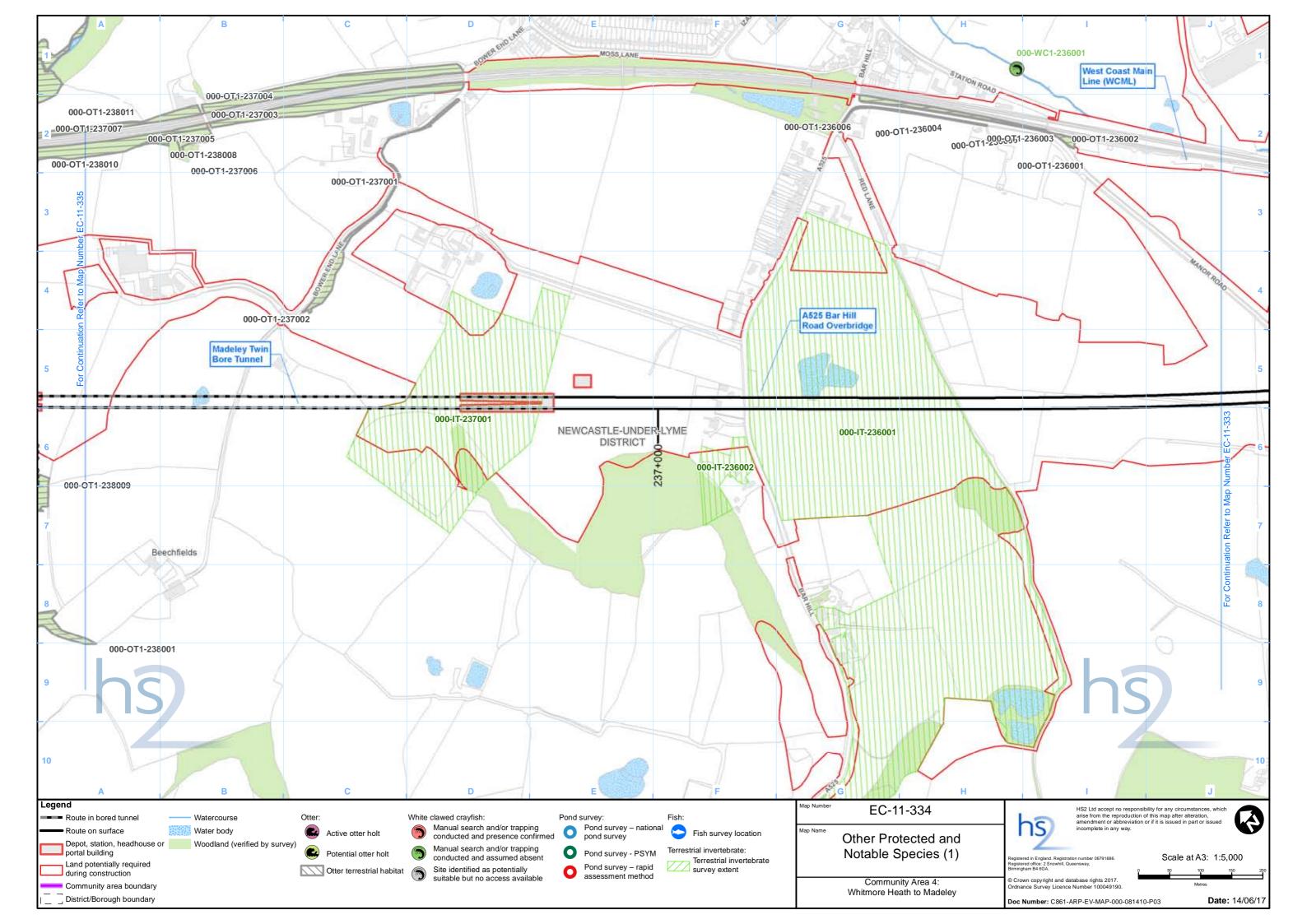


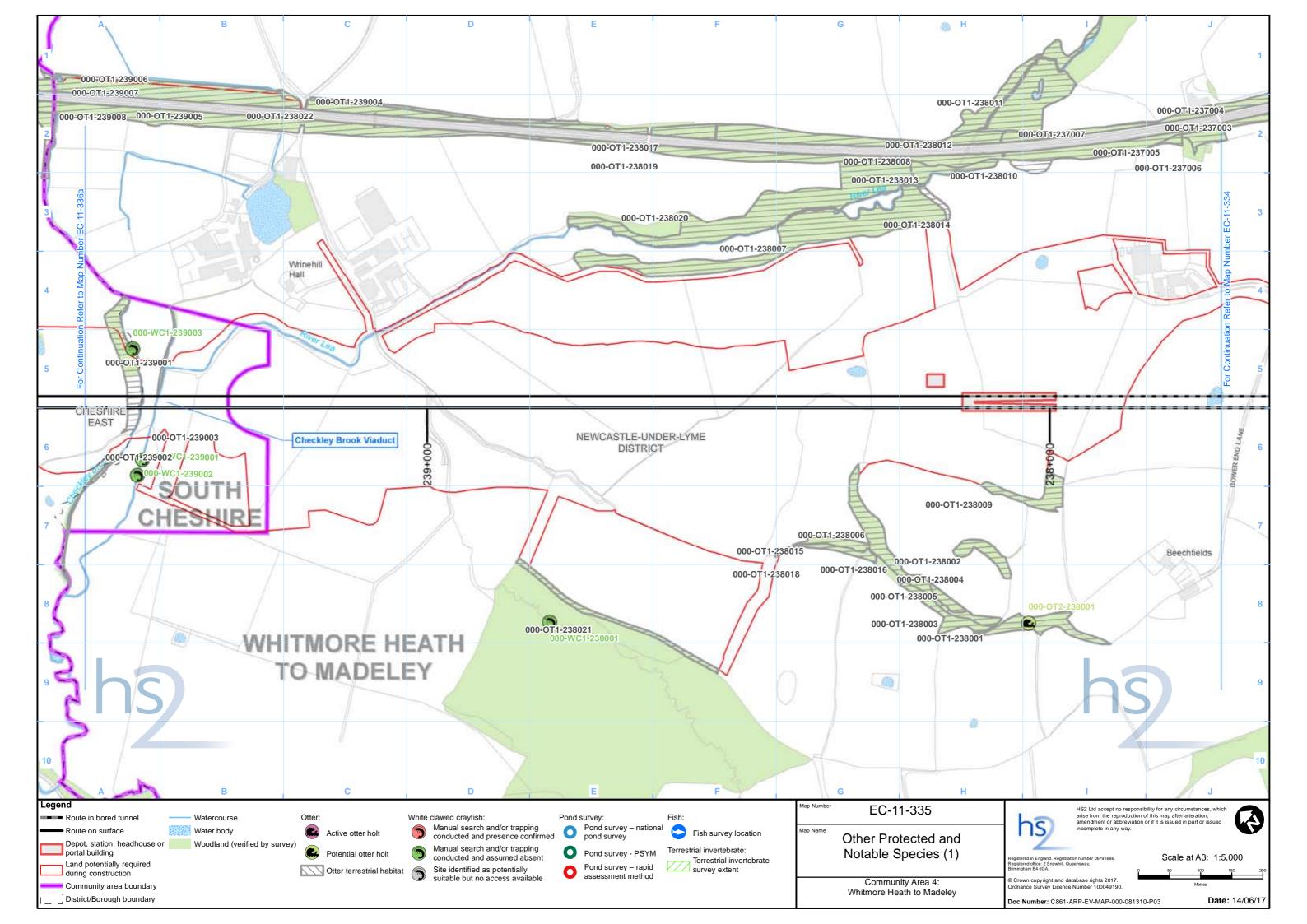


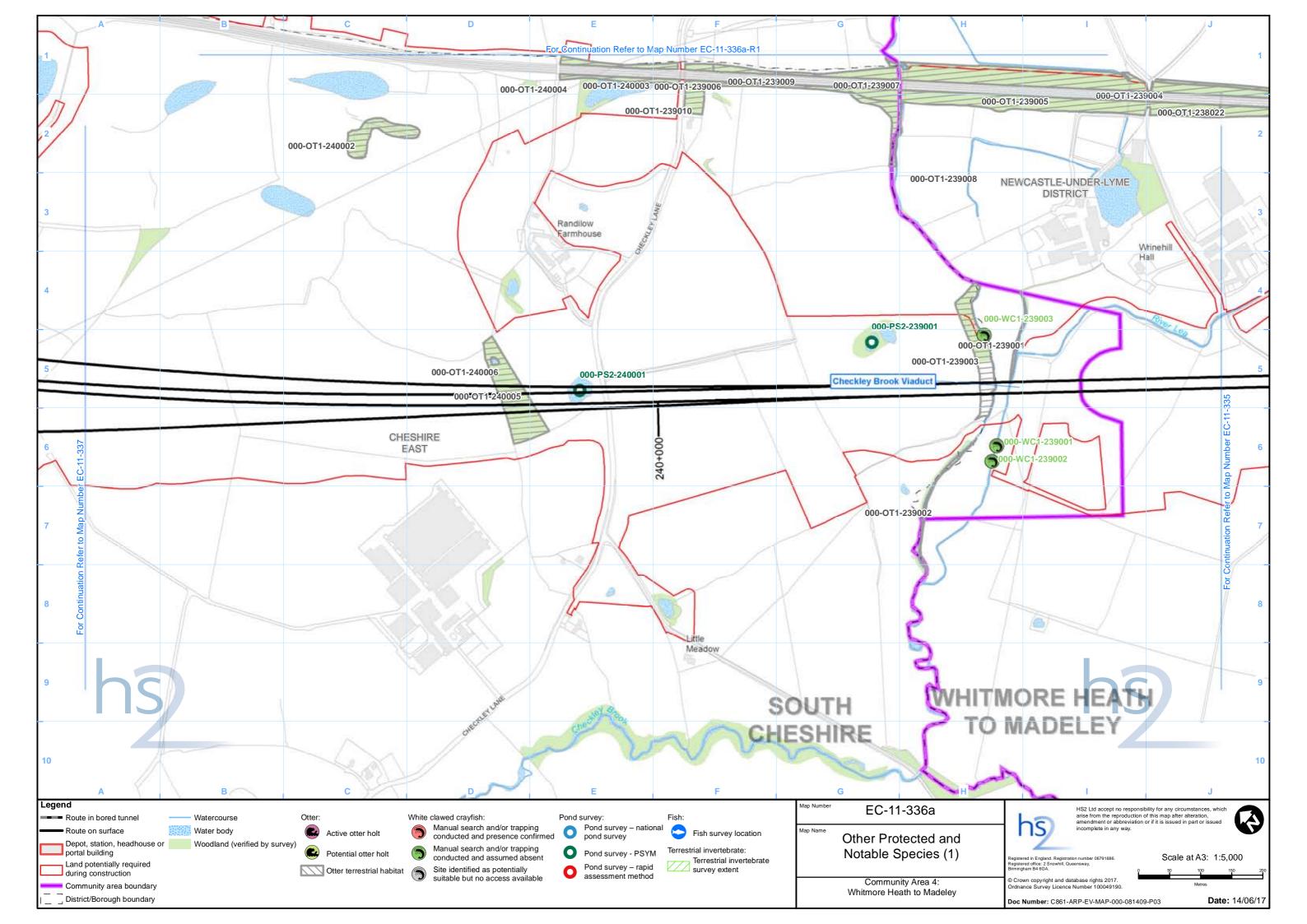


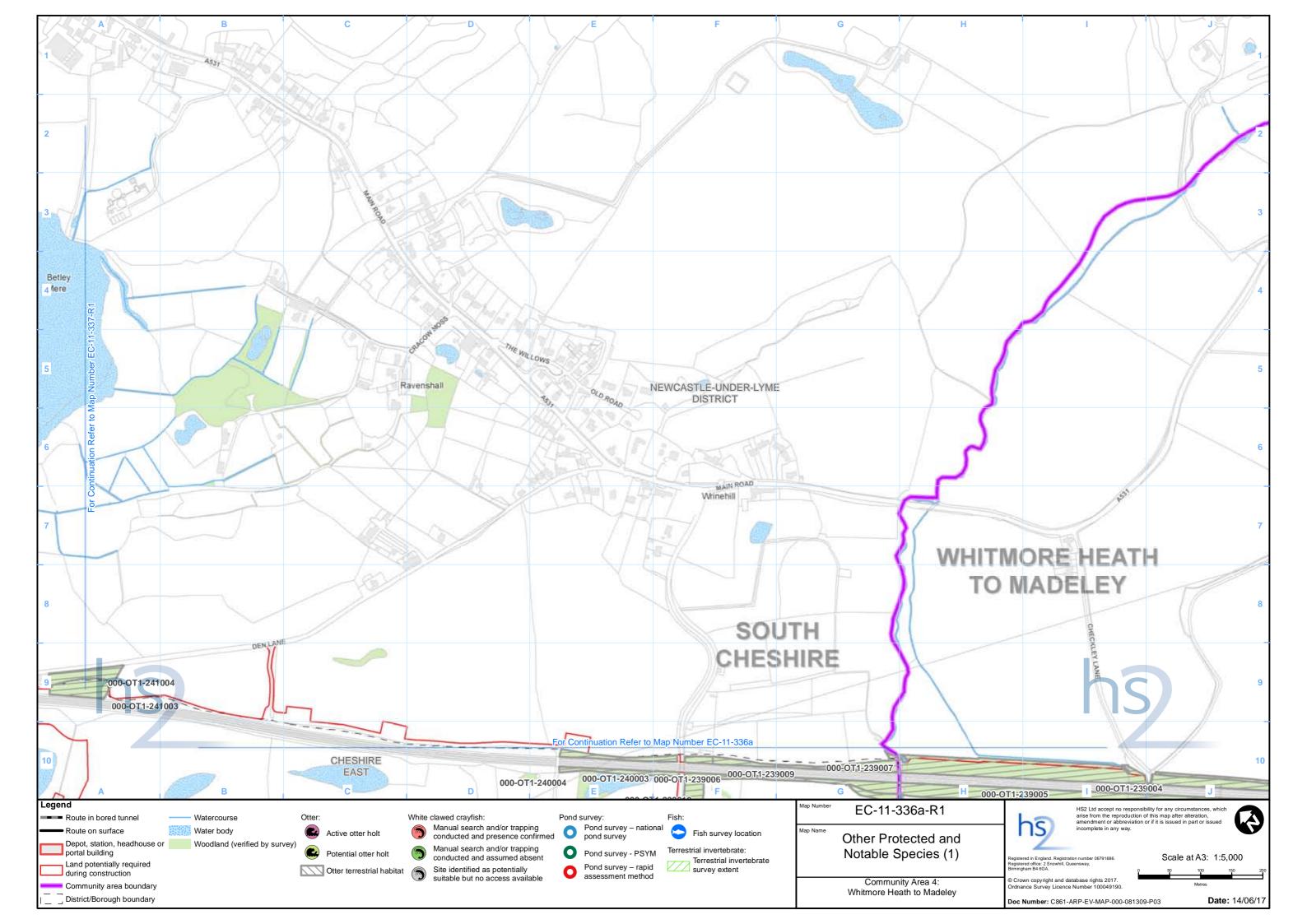




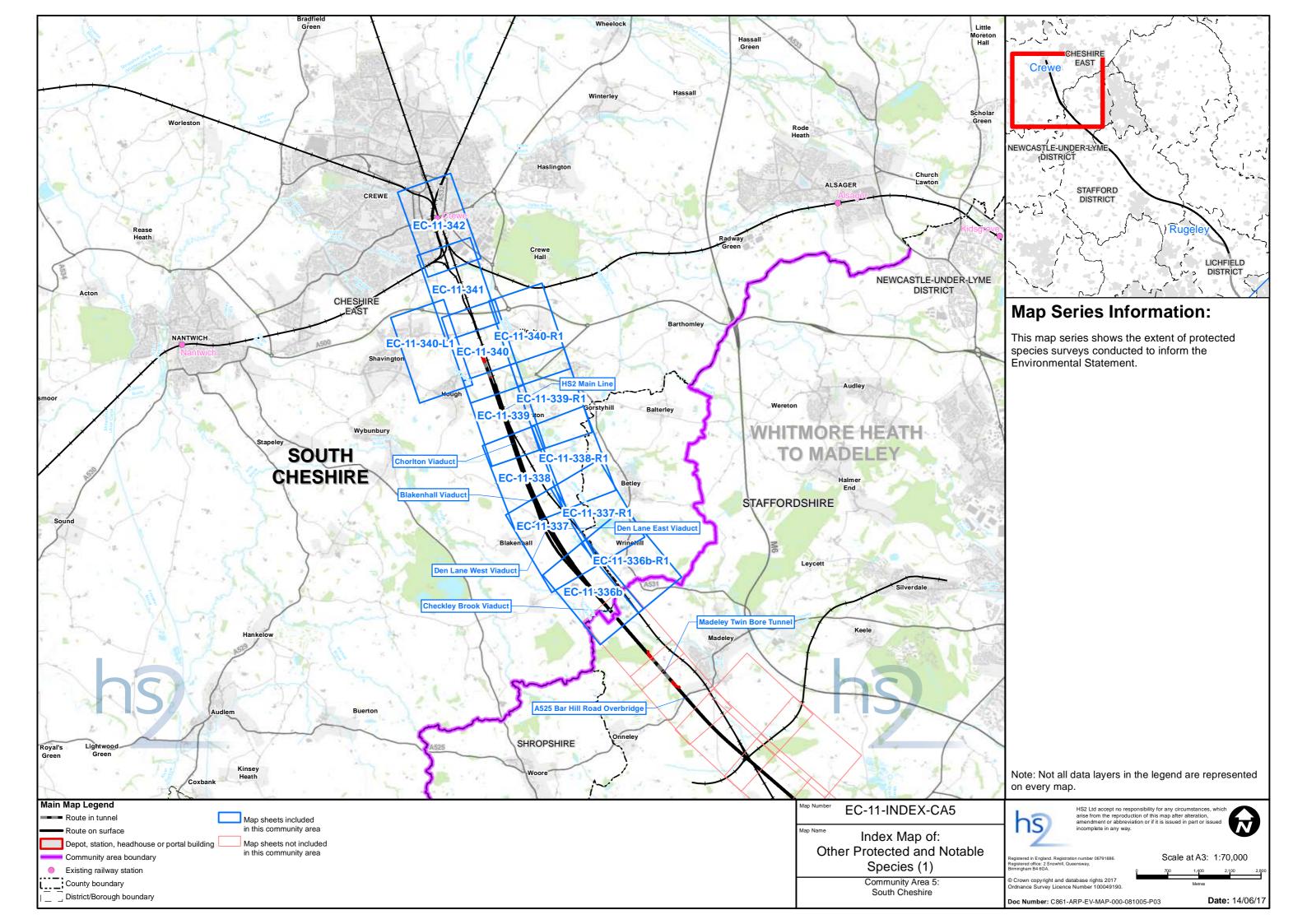


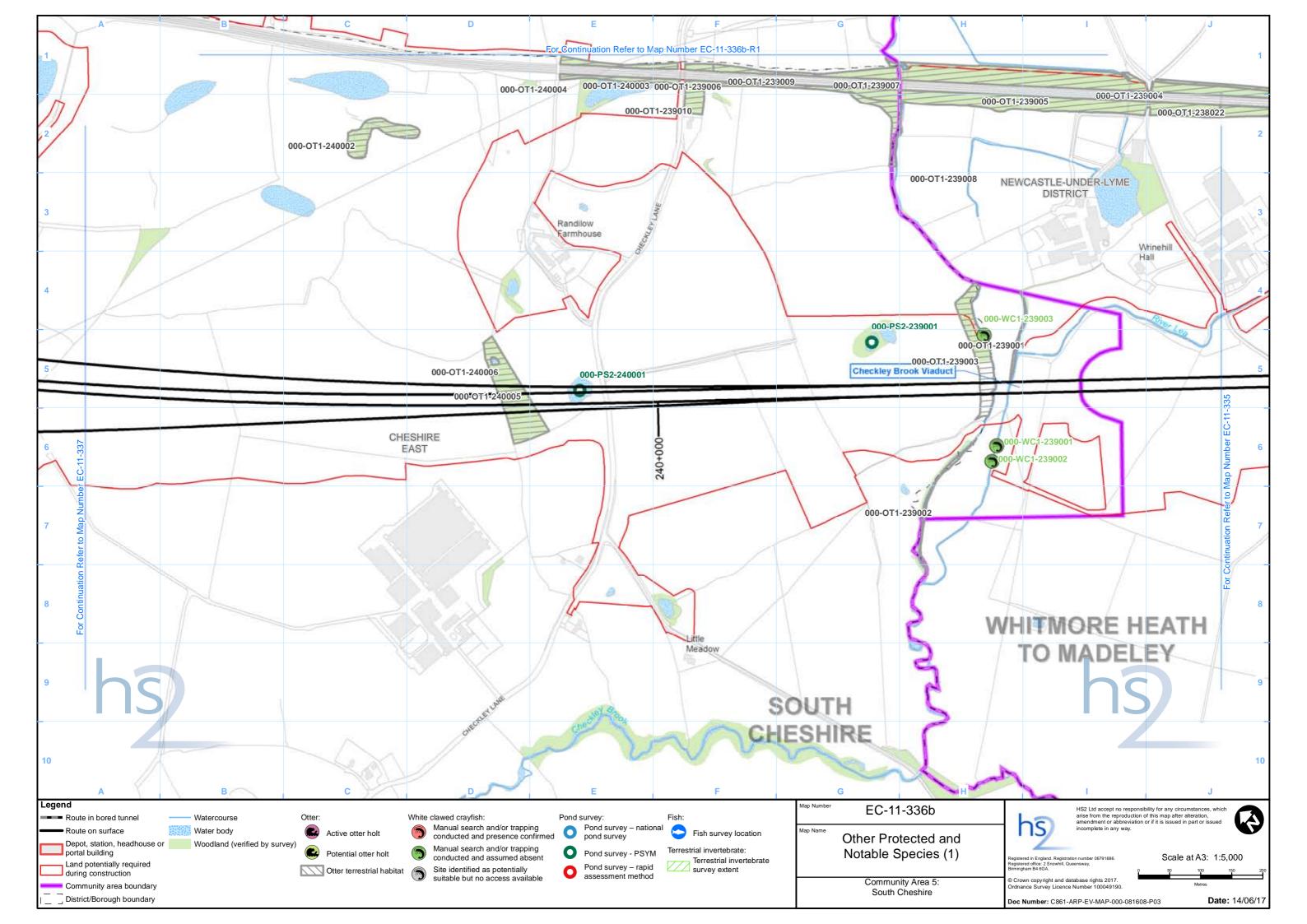


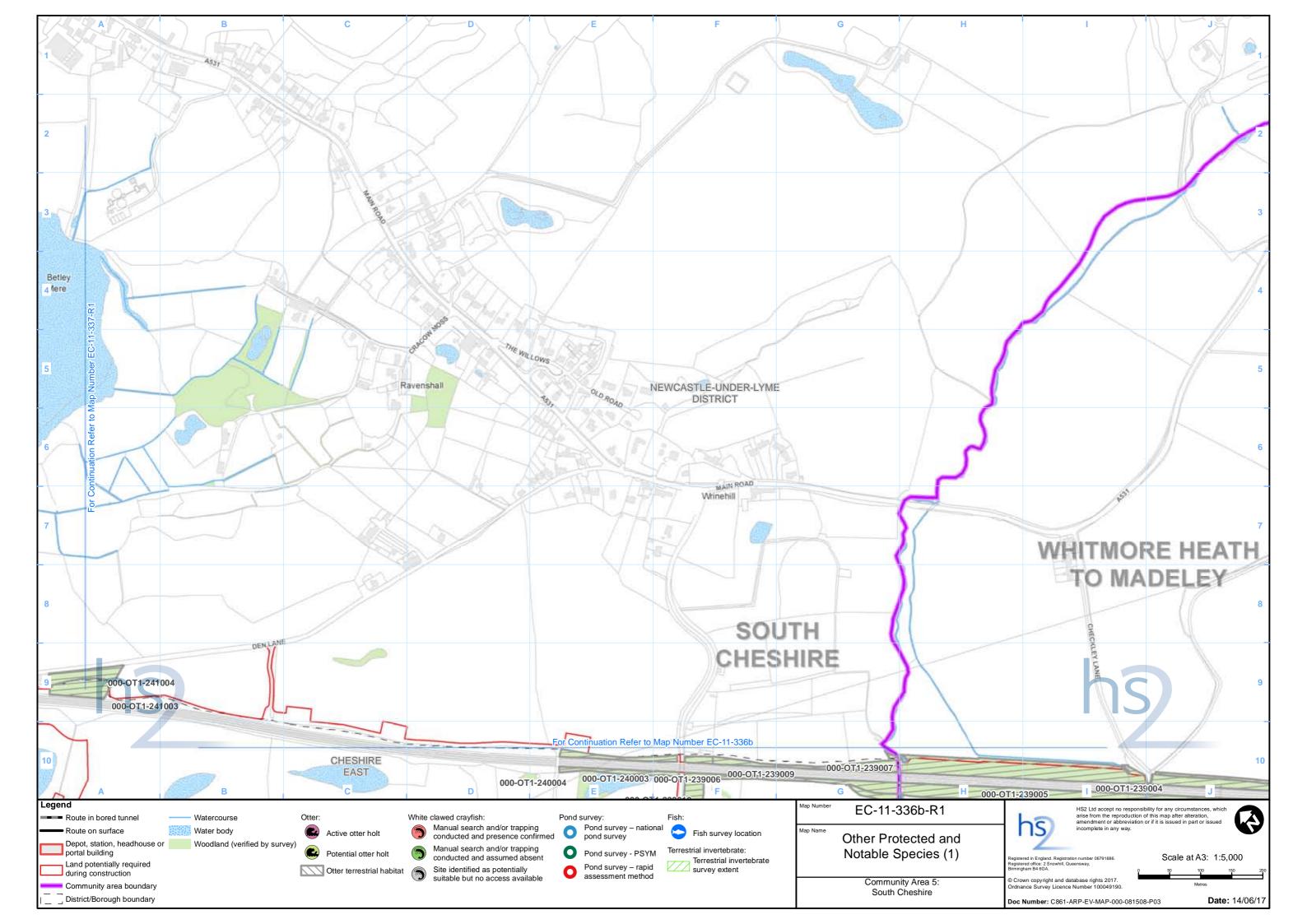


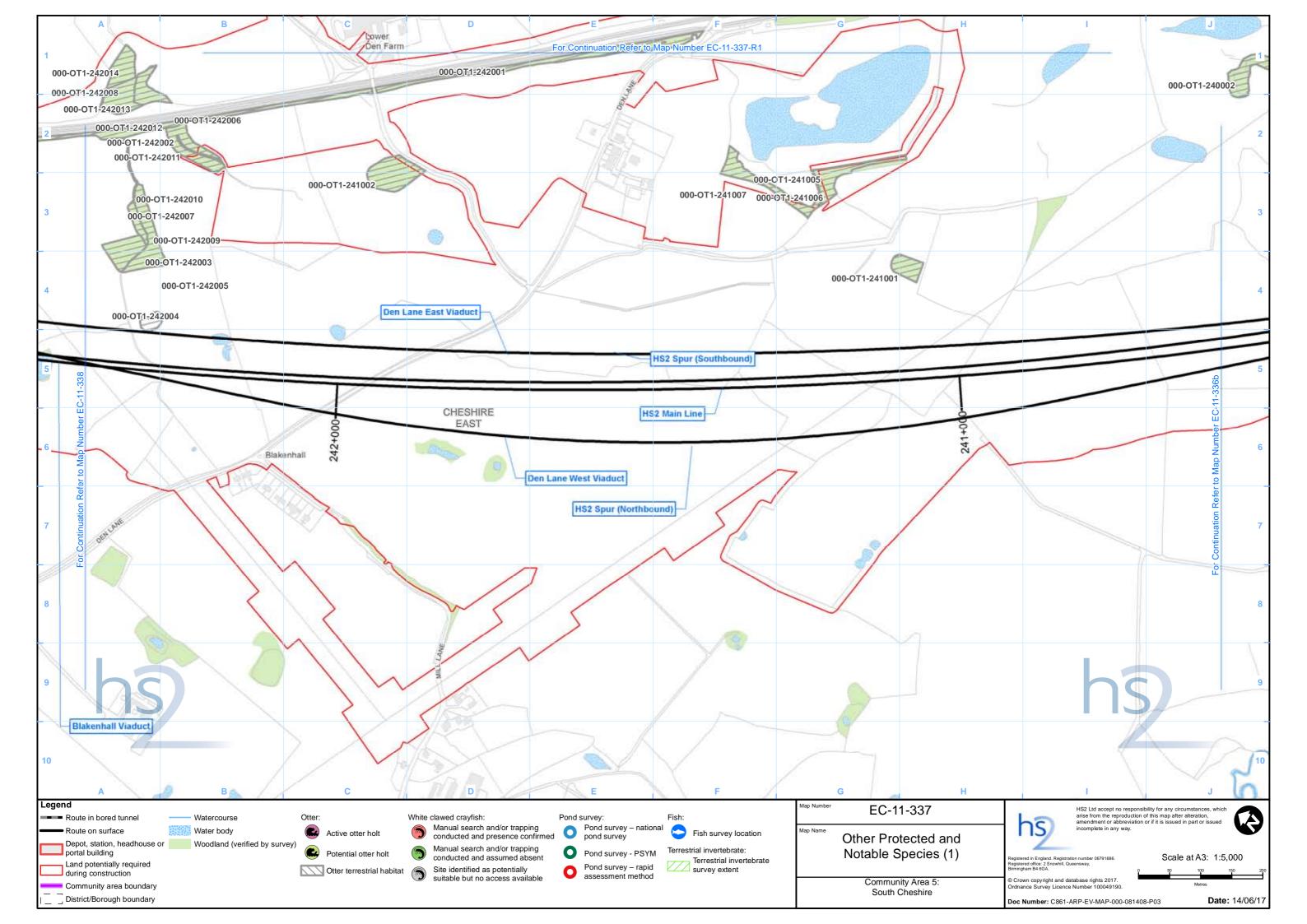


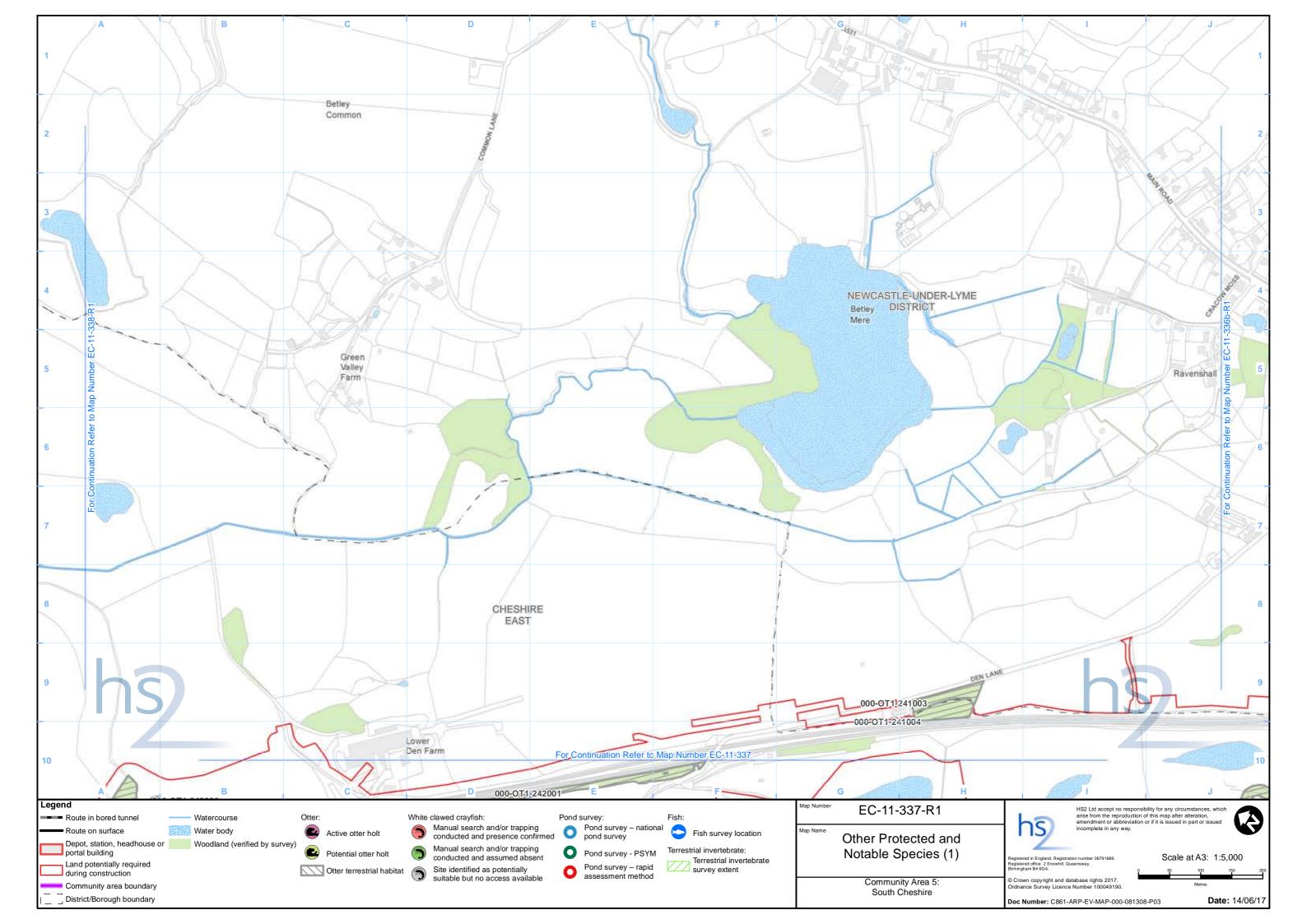
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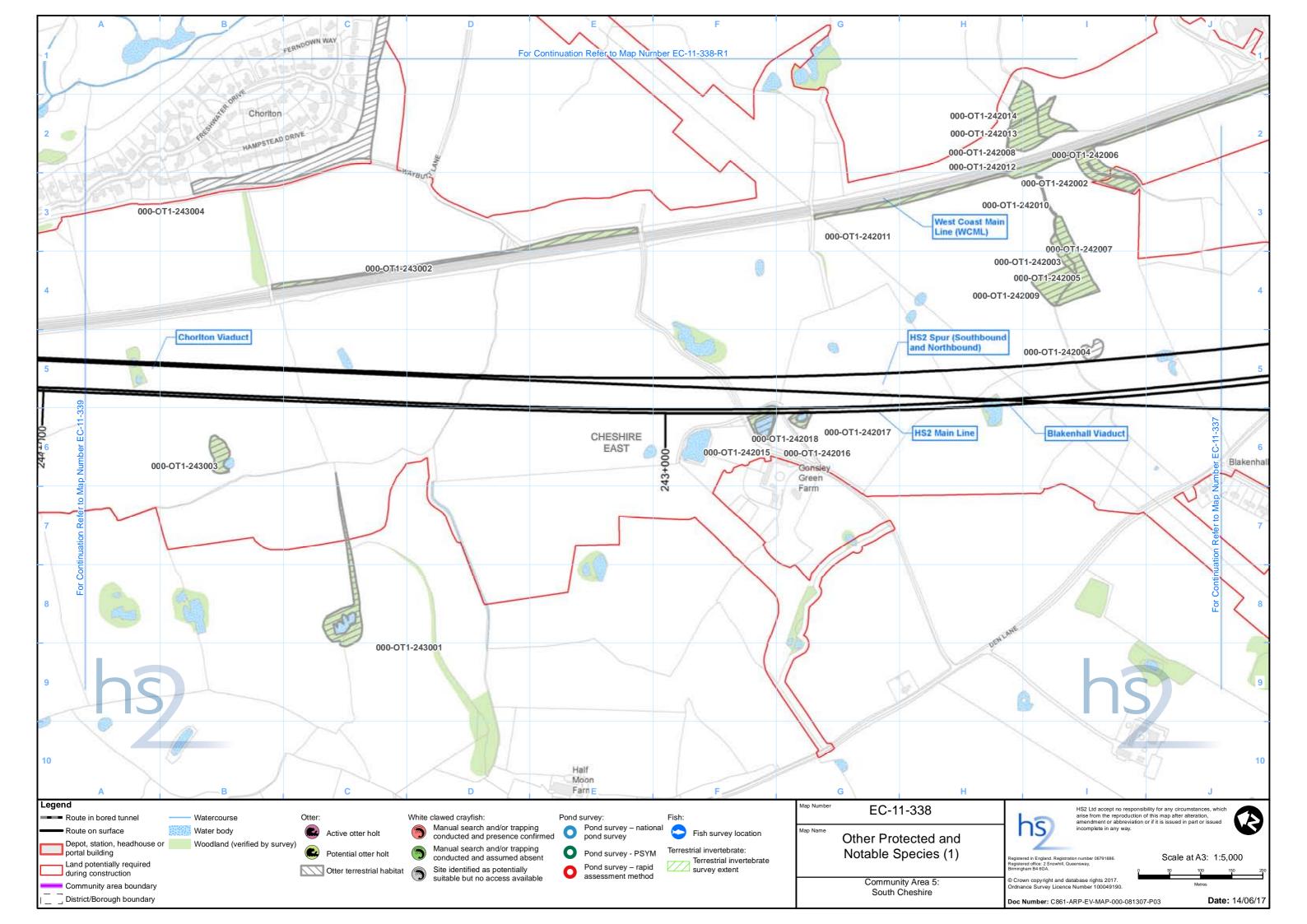


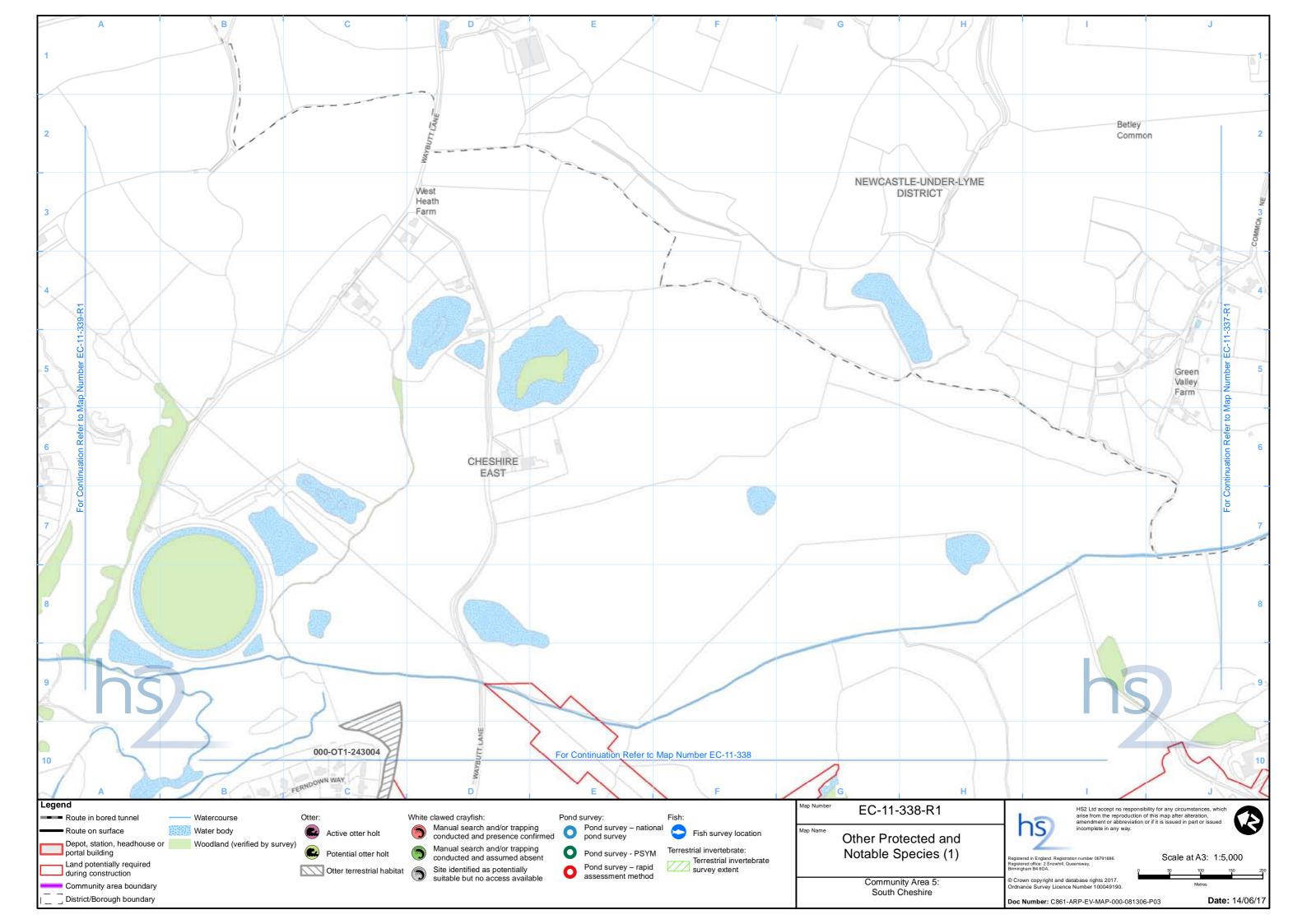


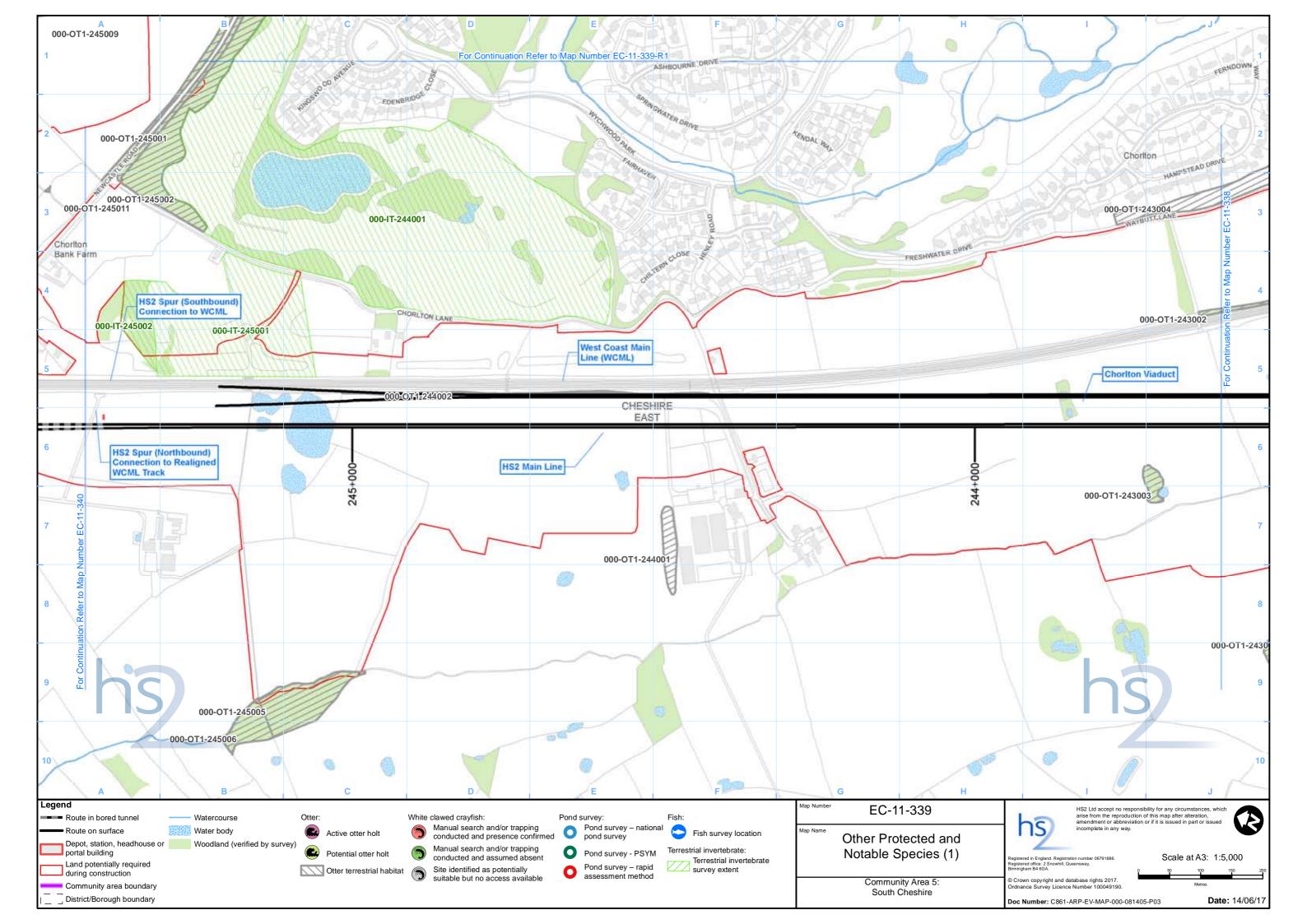


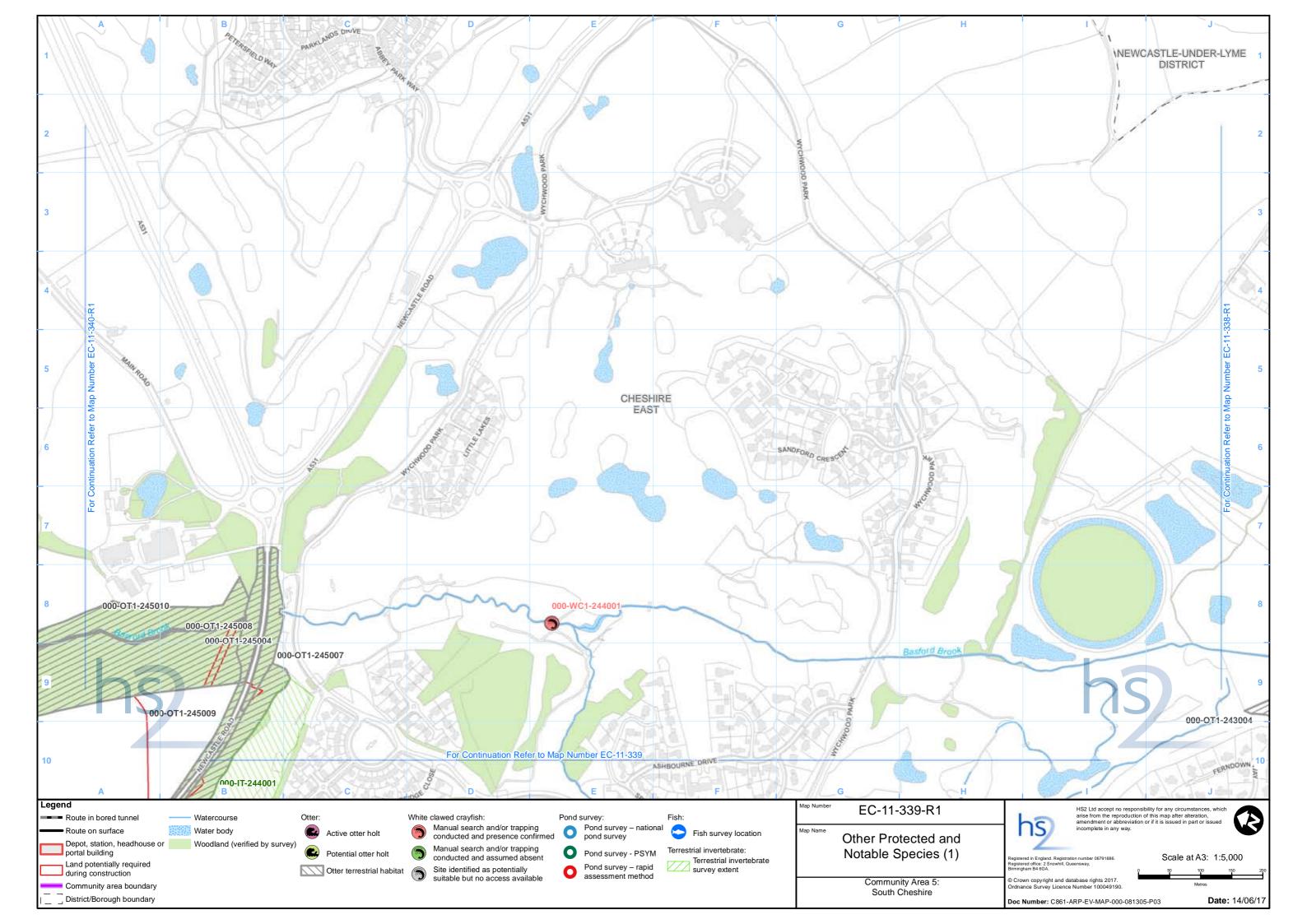


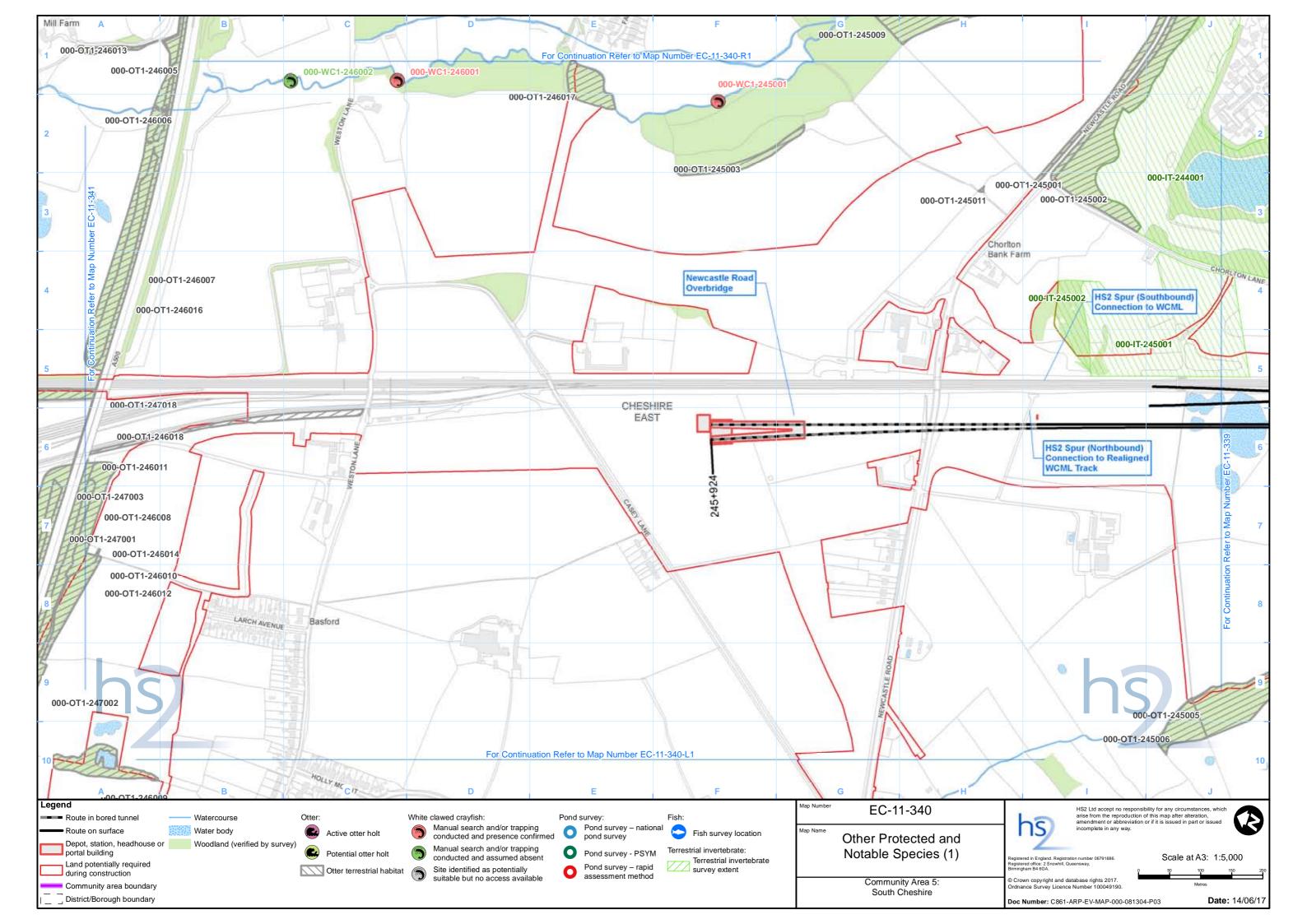


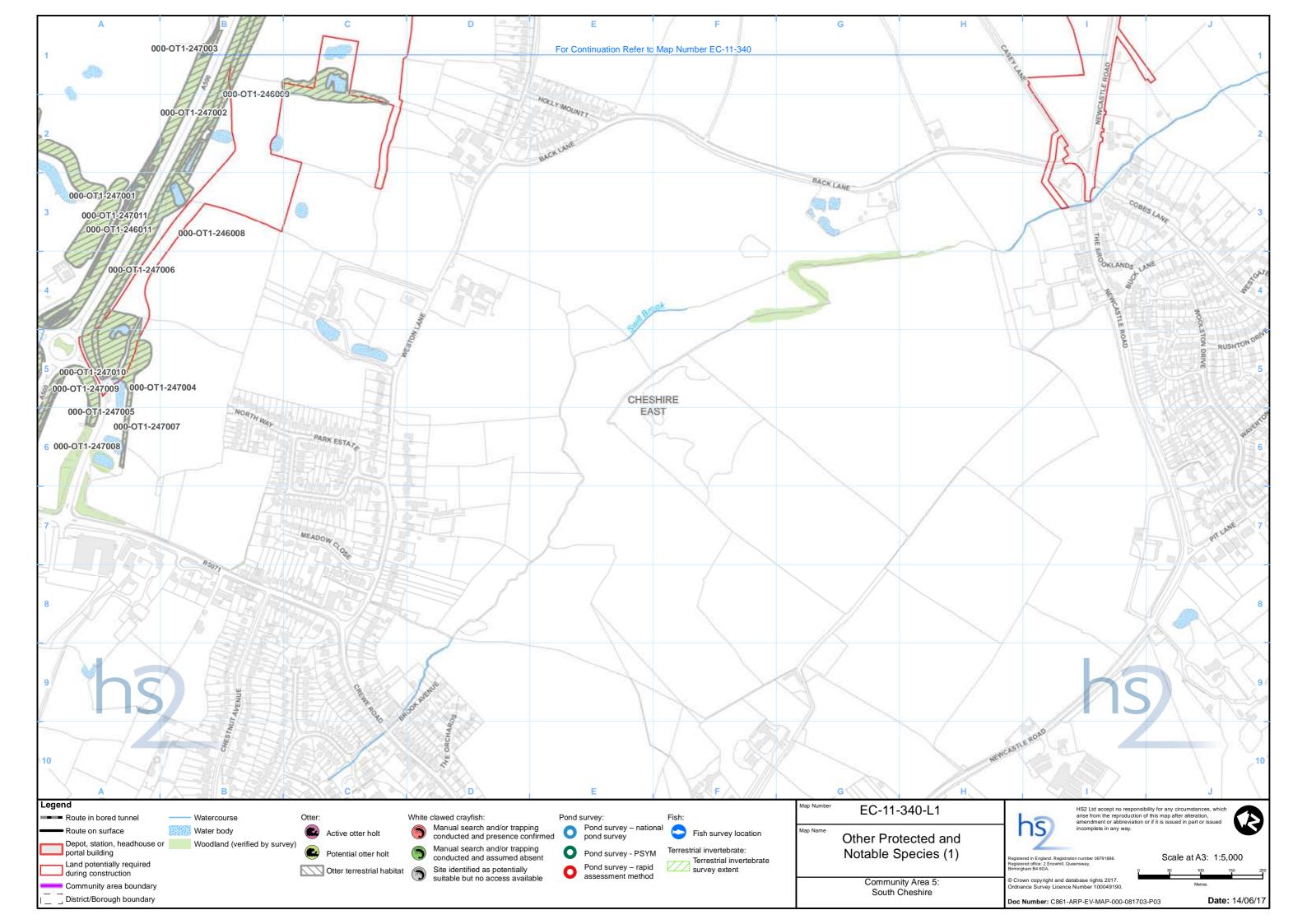


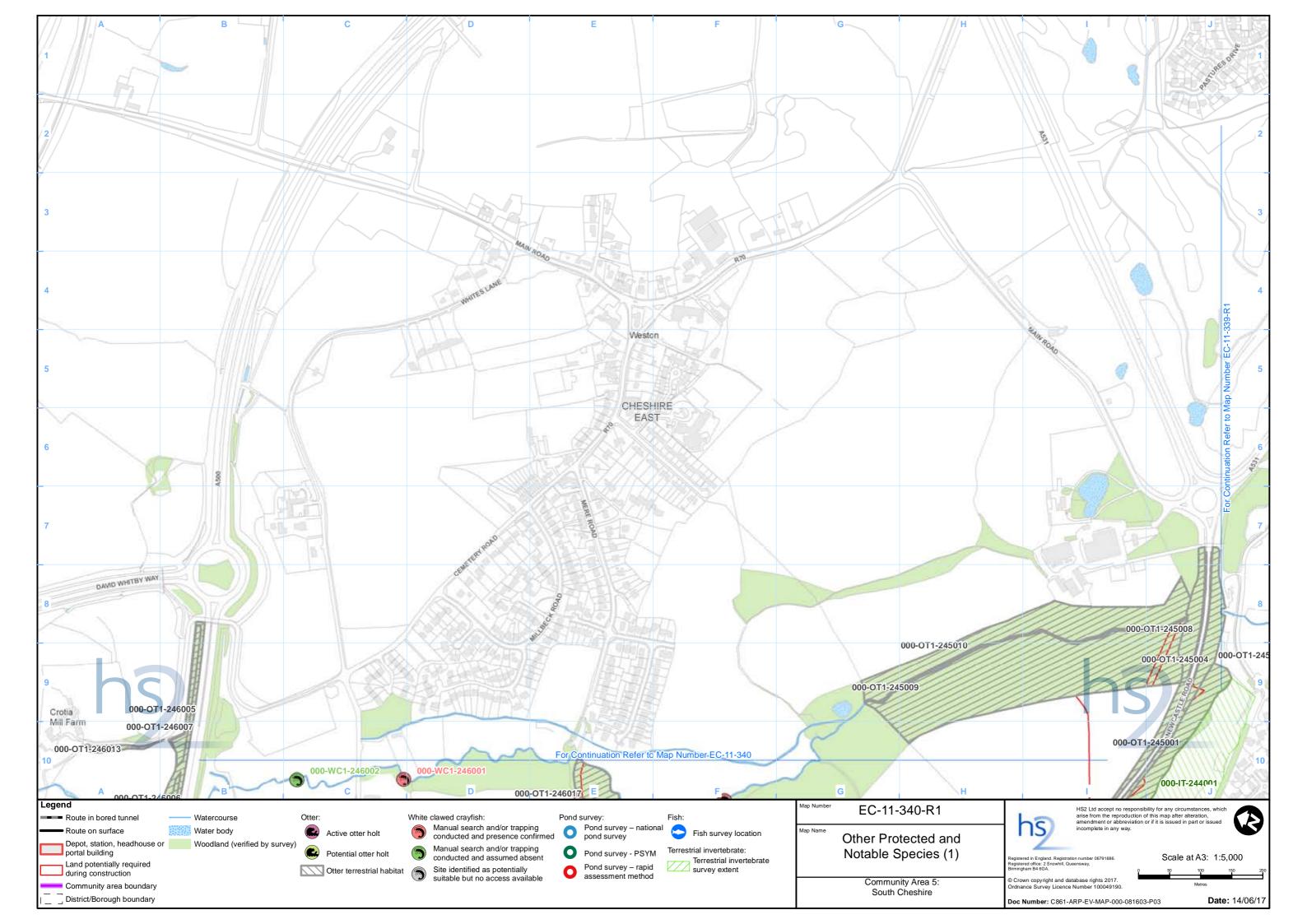


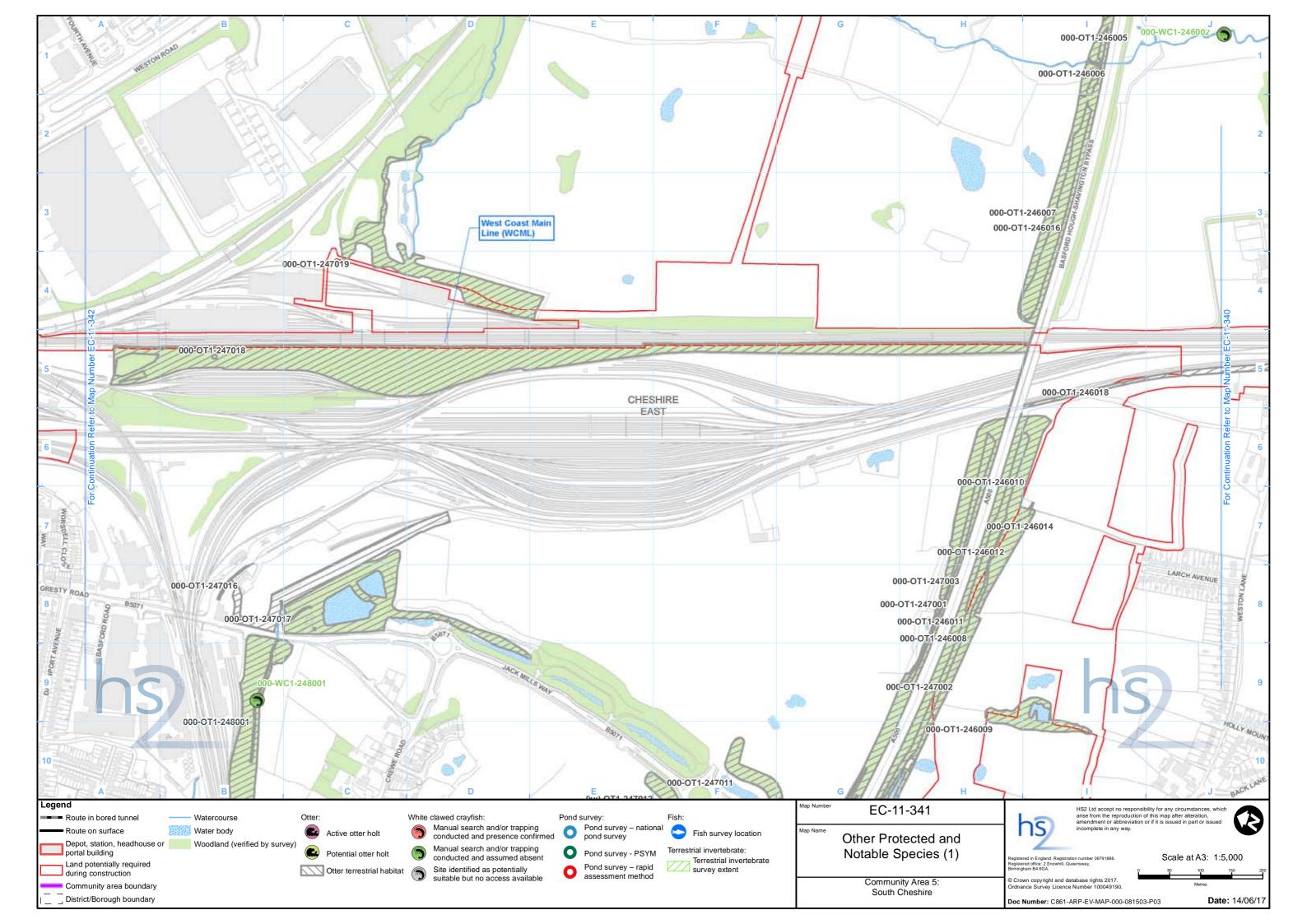


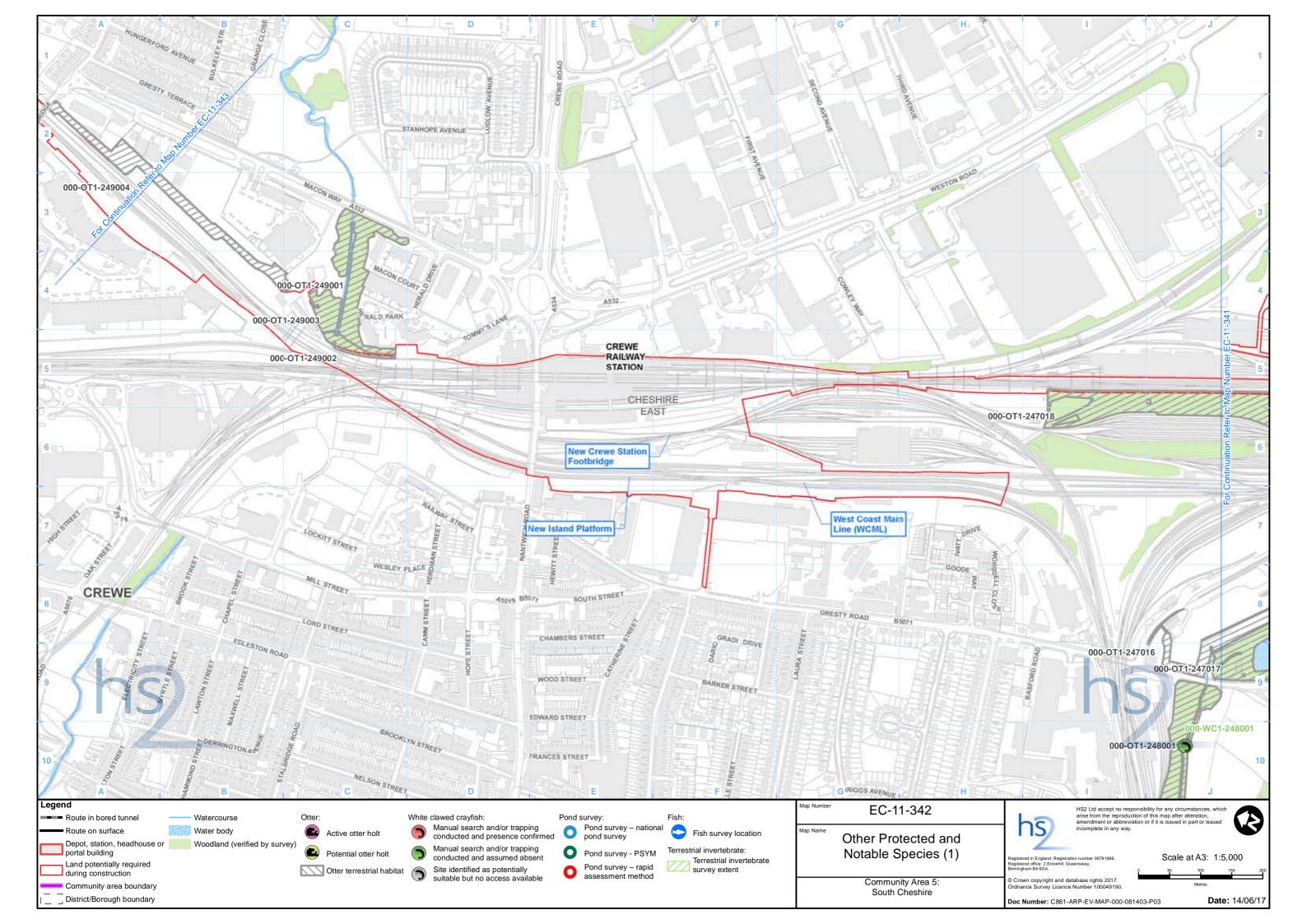








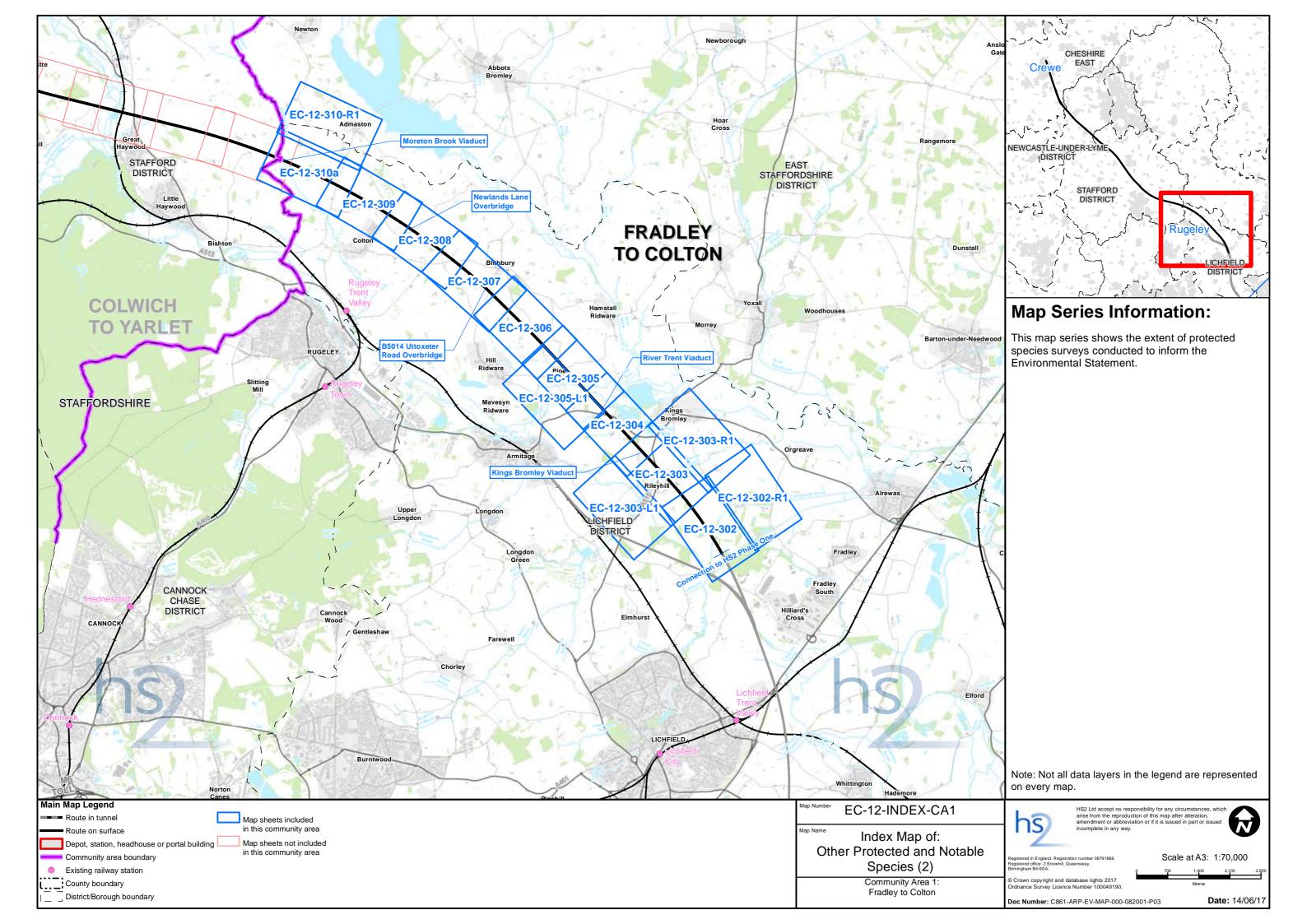


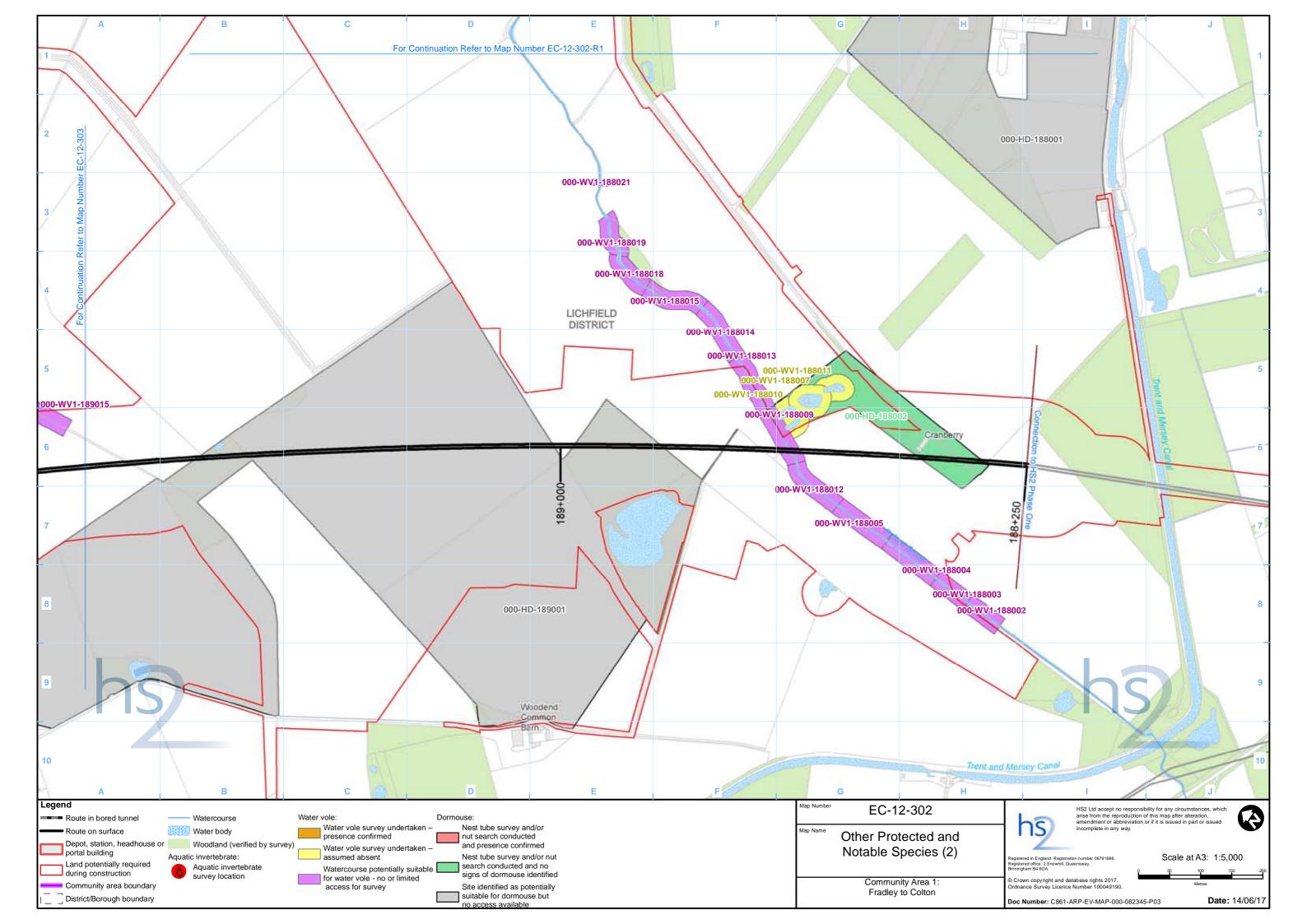


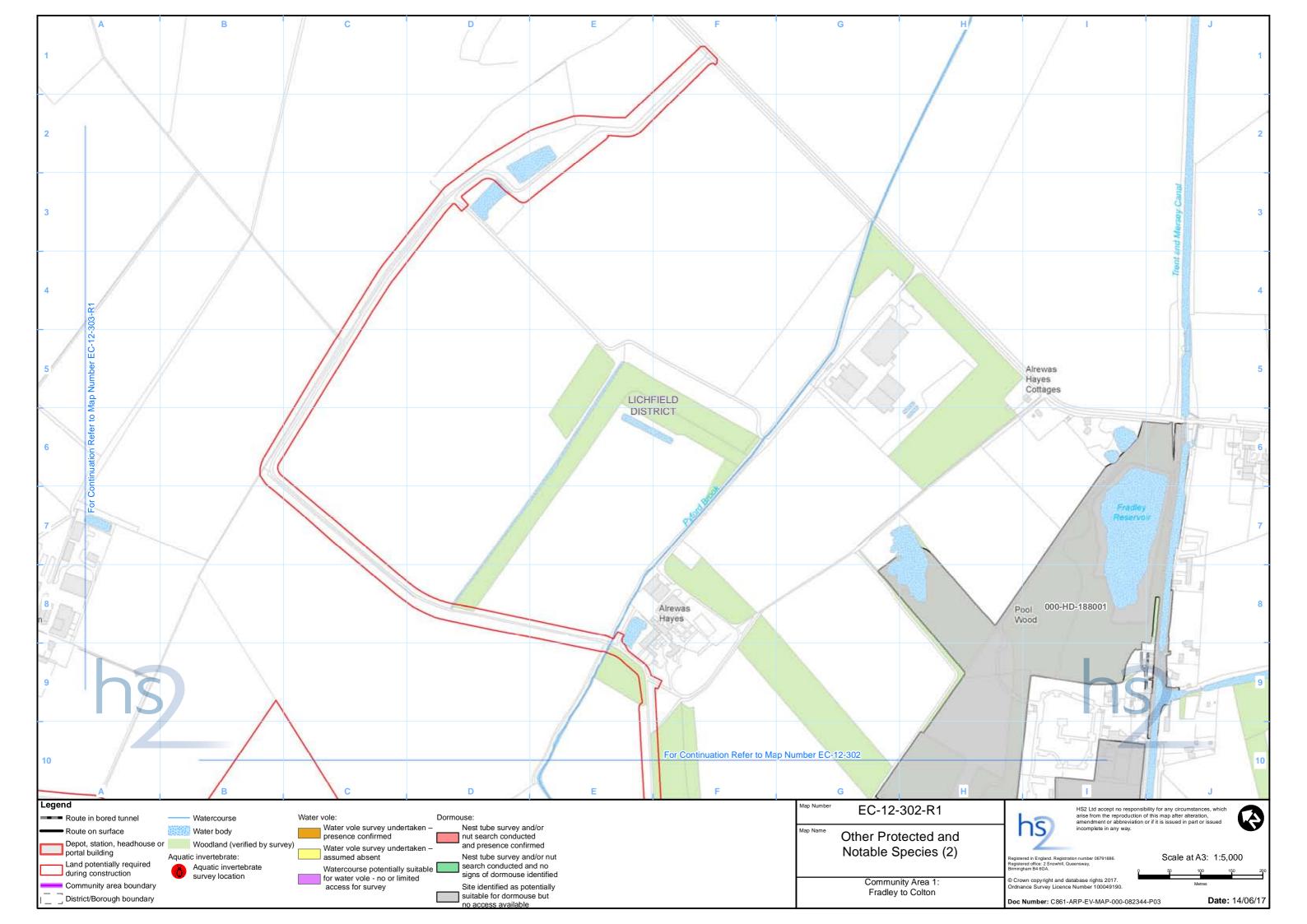
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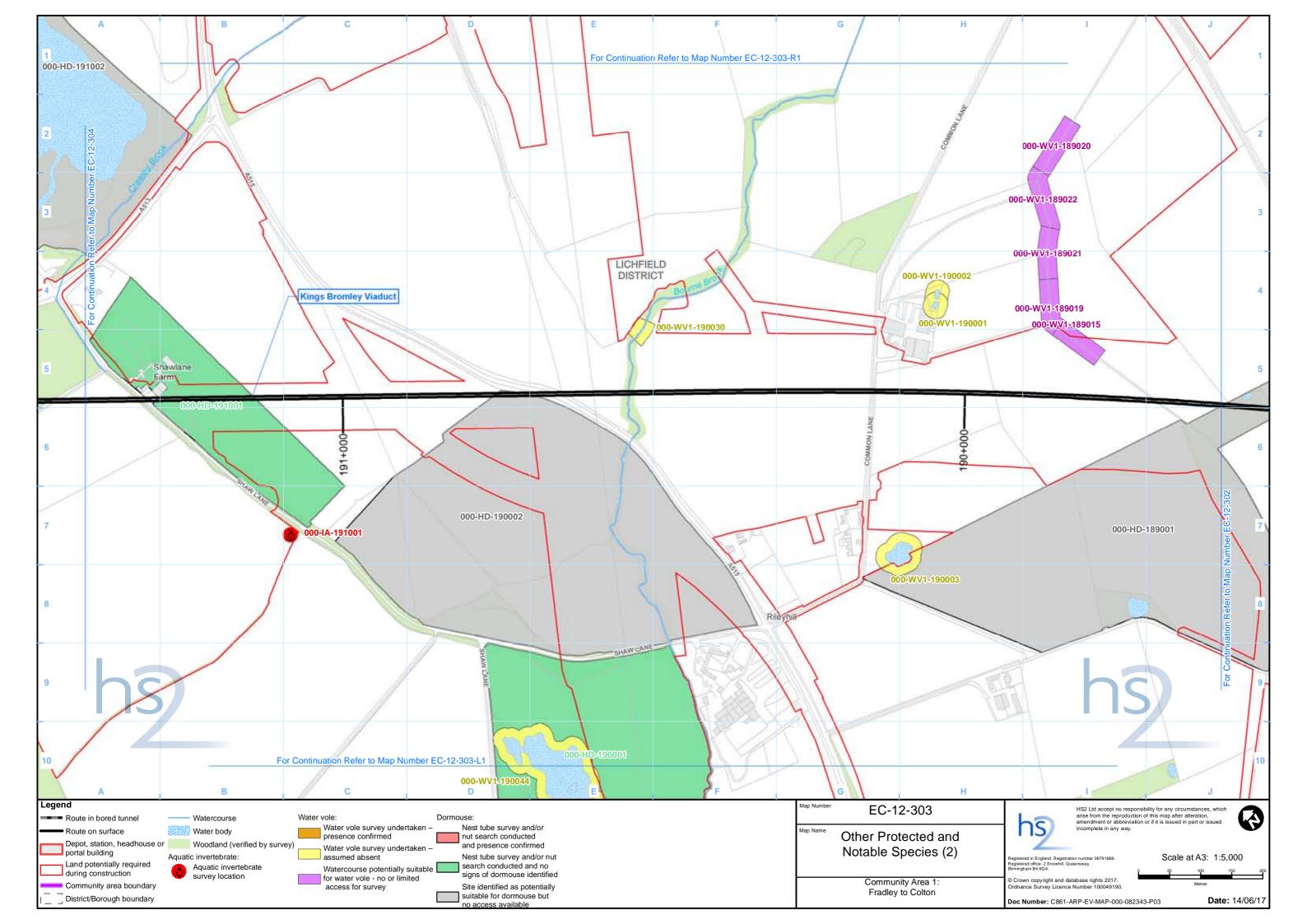
High Speed Two Phase 2a (West Midlands-Crewe)
Background Information and Data

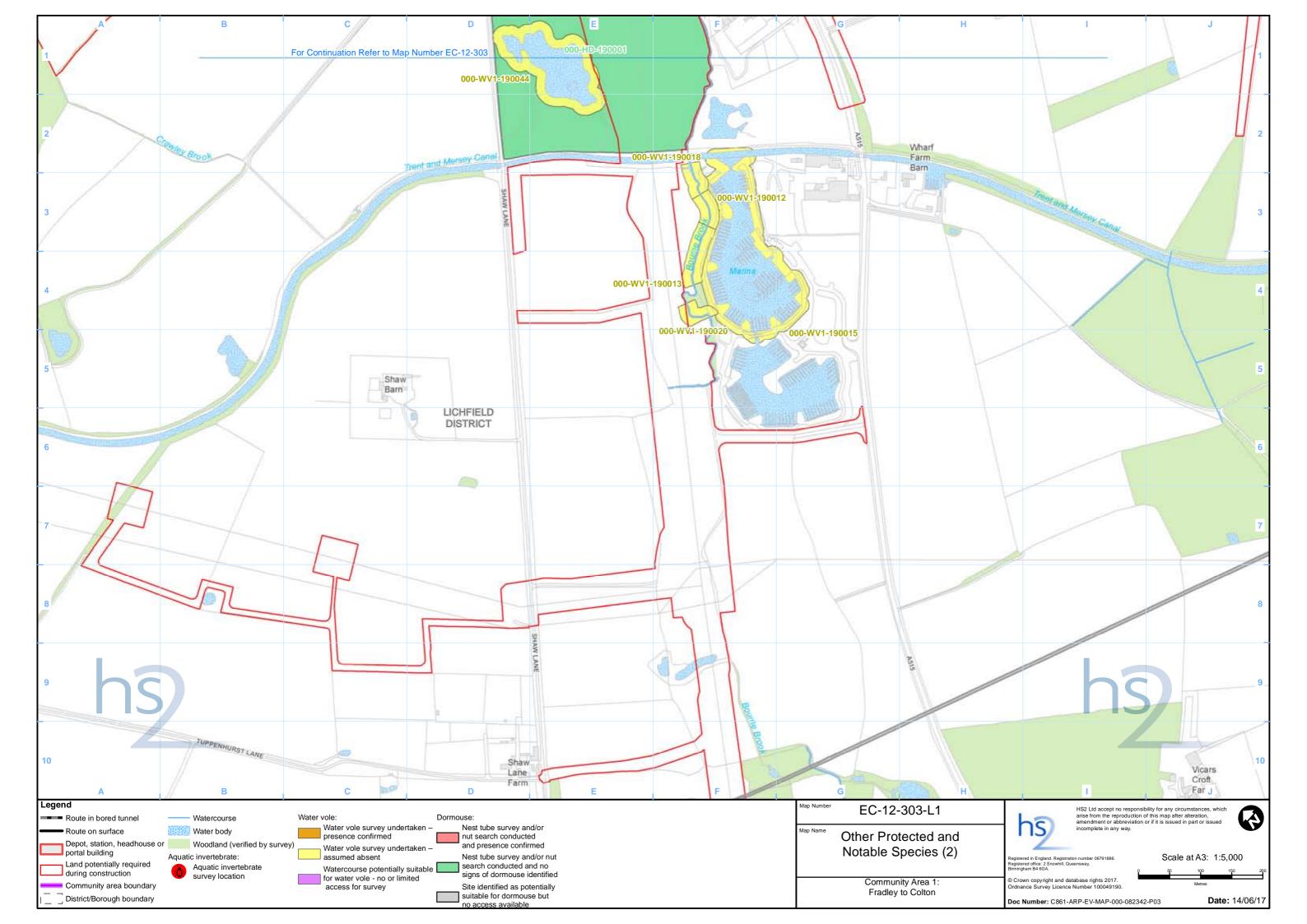
EC-12 - Other Protected and Notable Species (2)

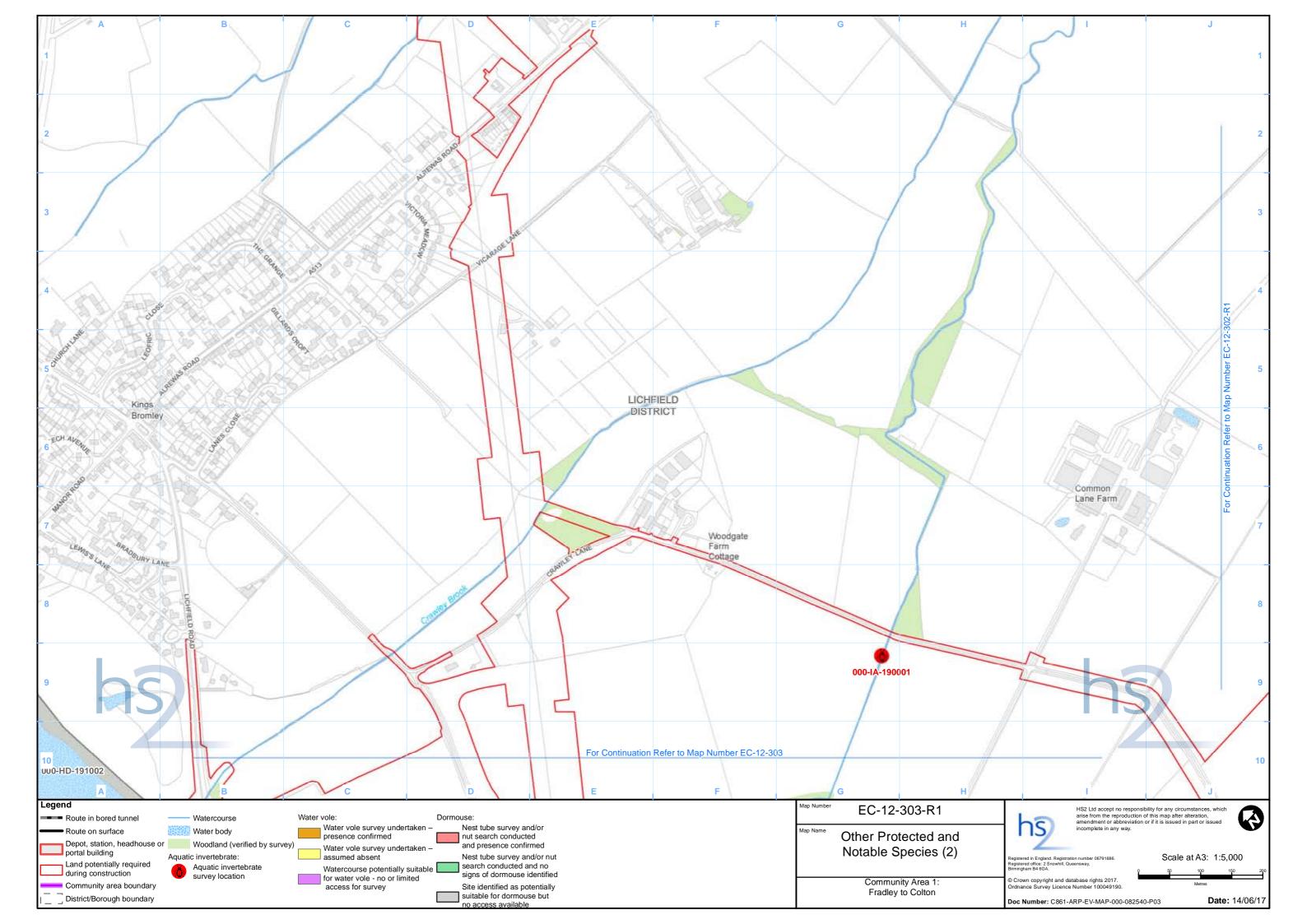


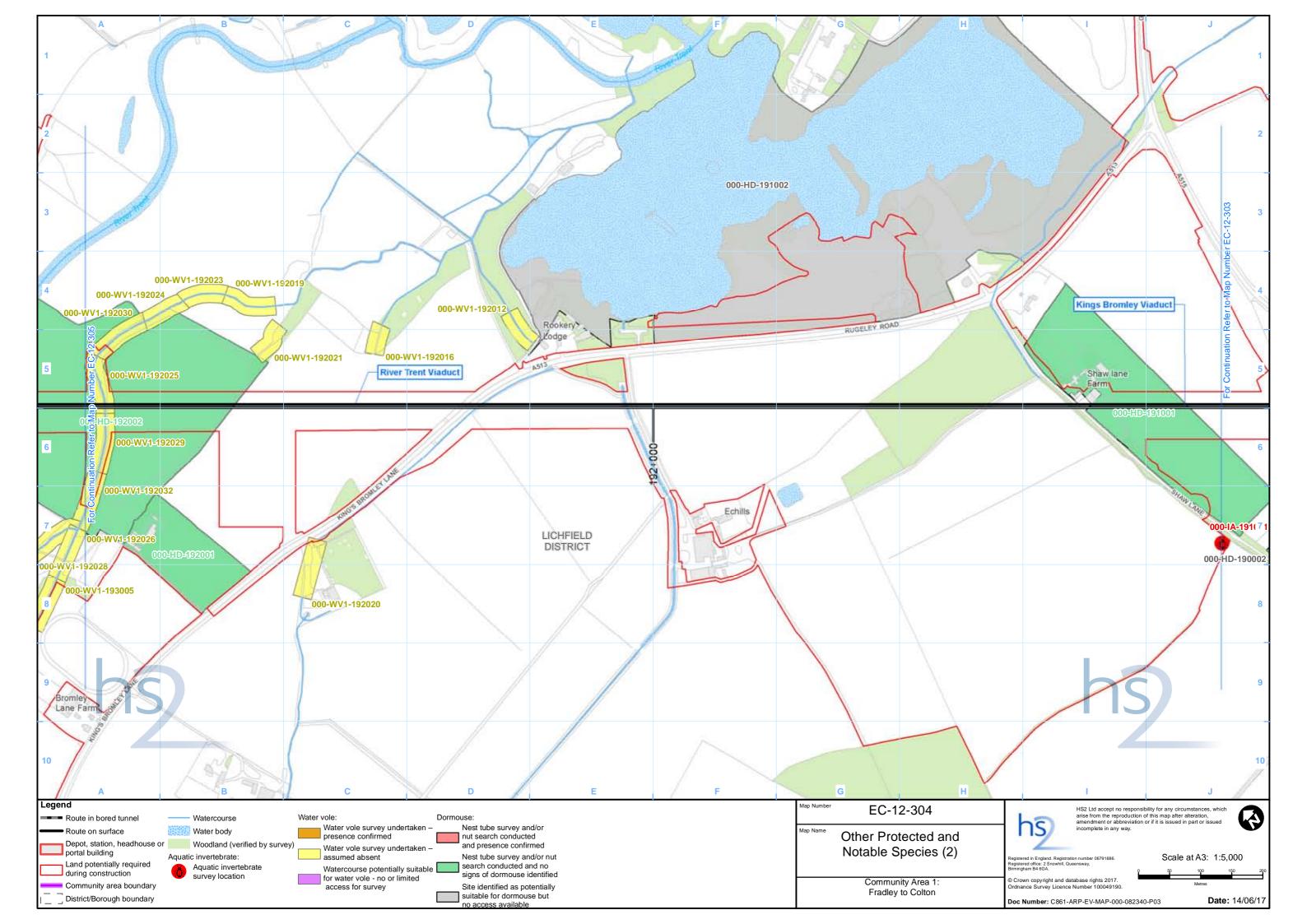


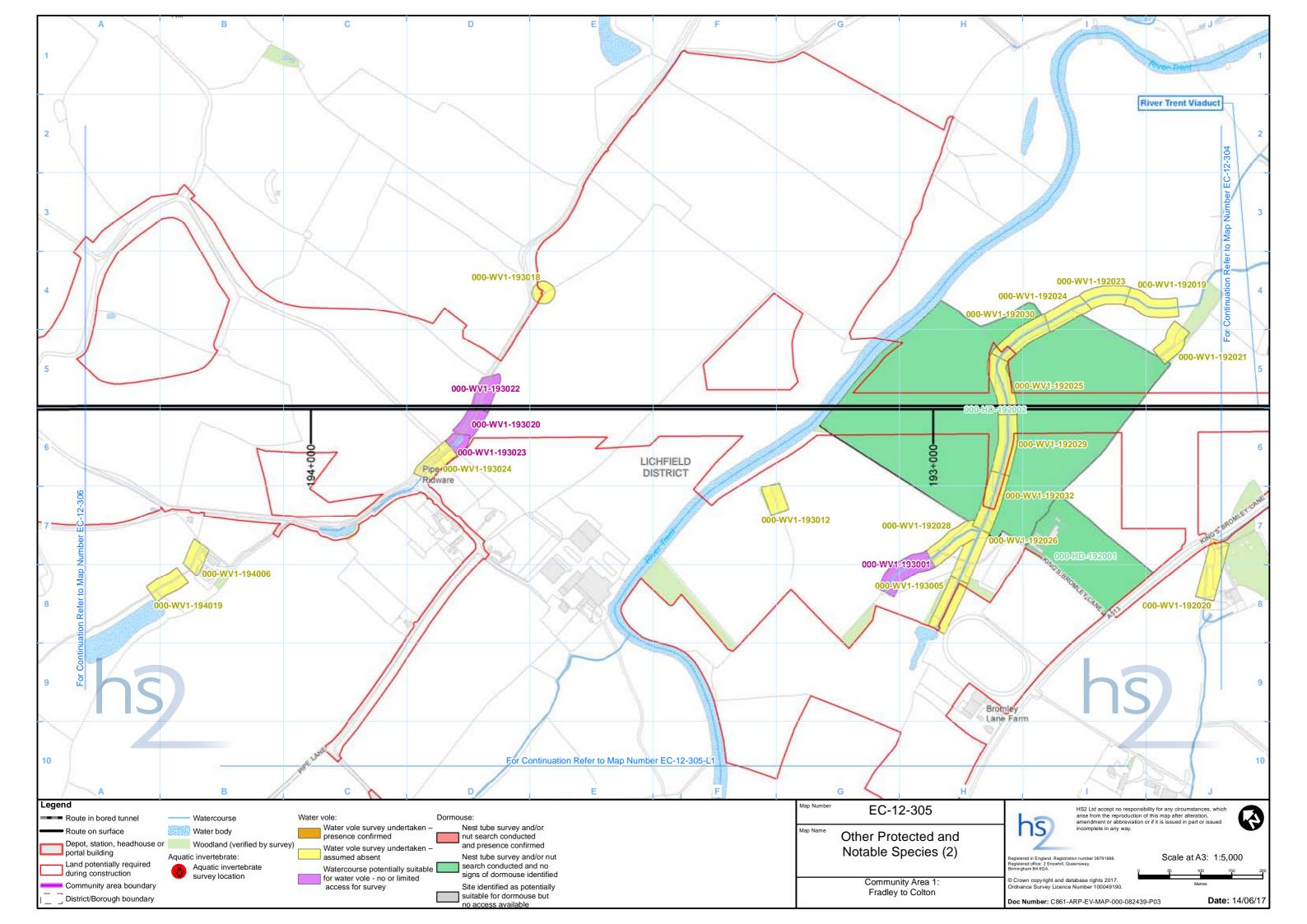


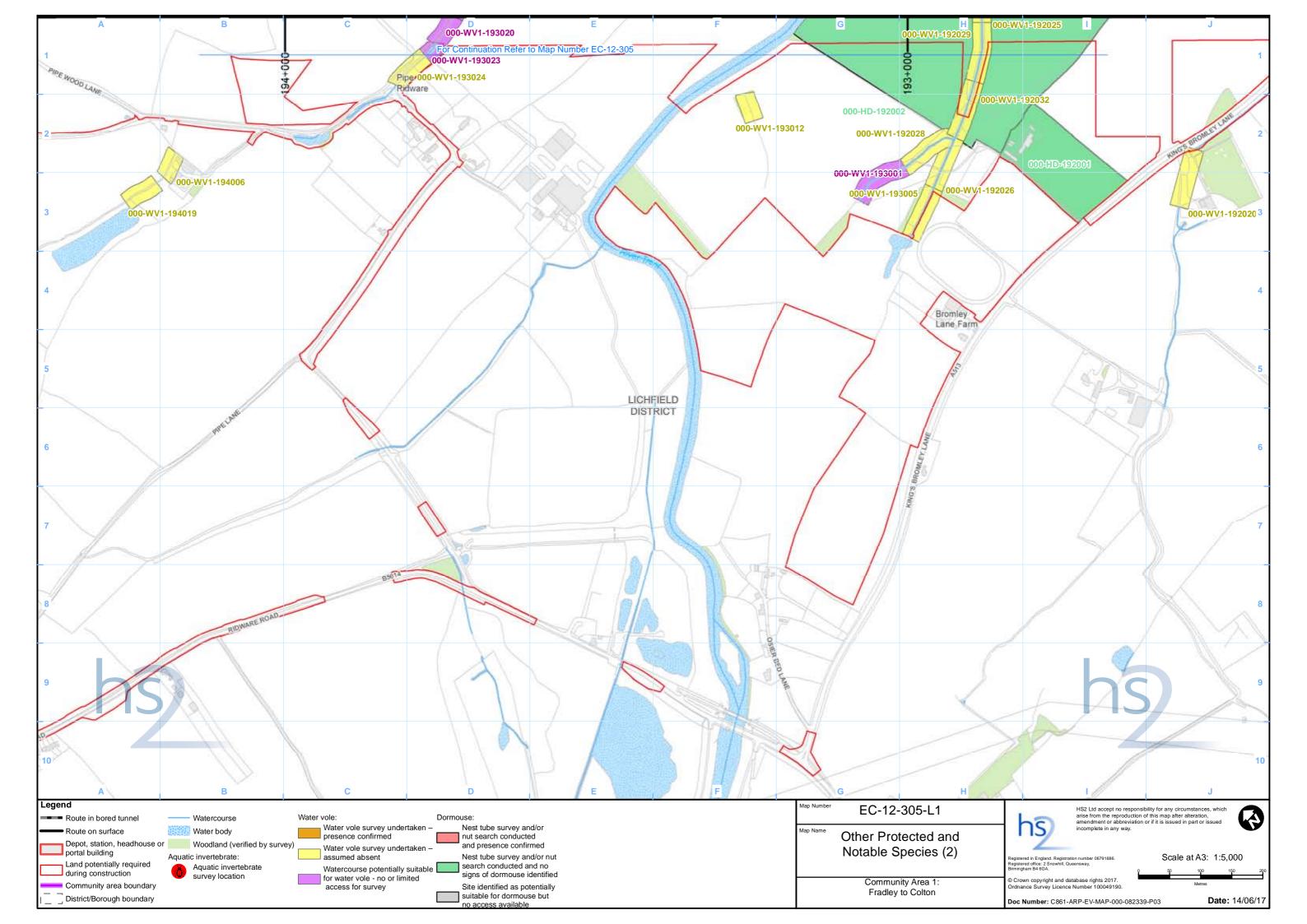


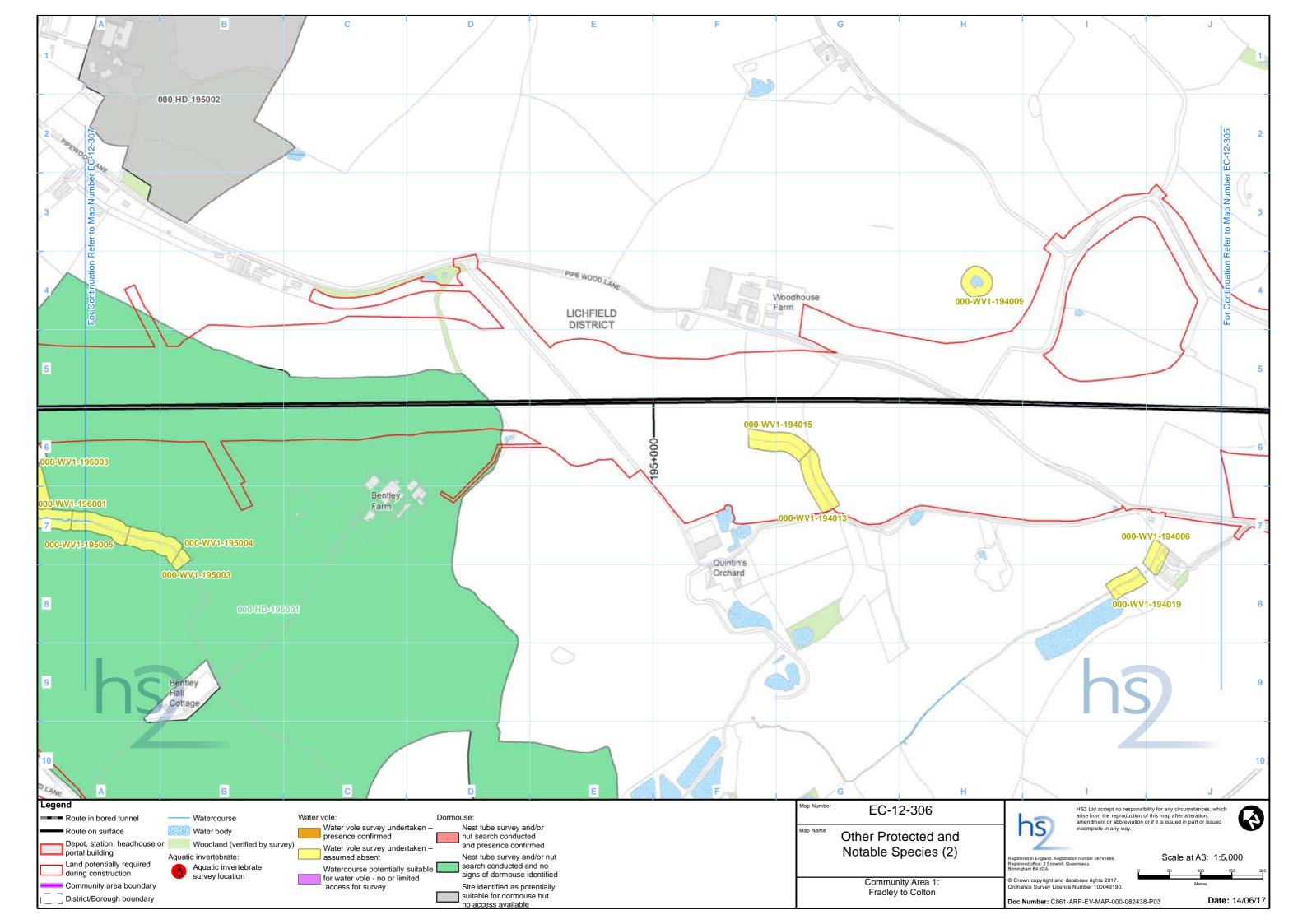


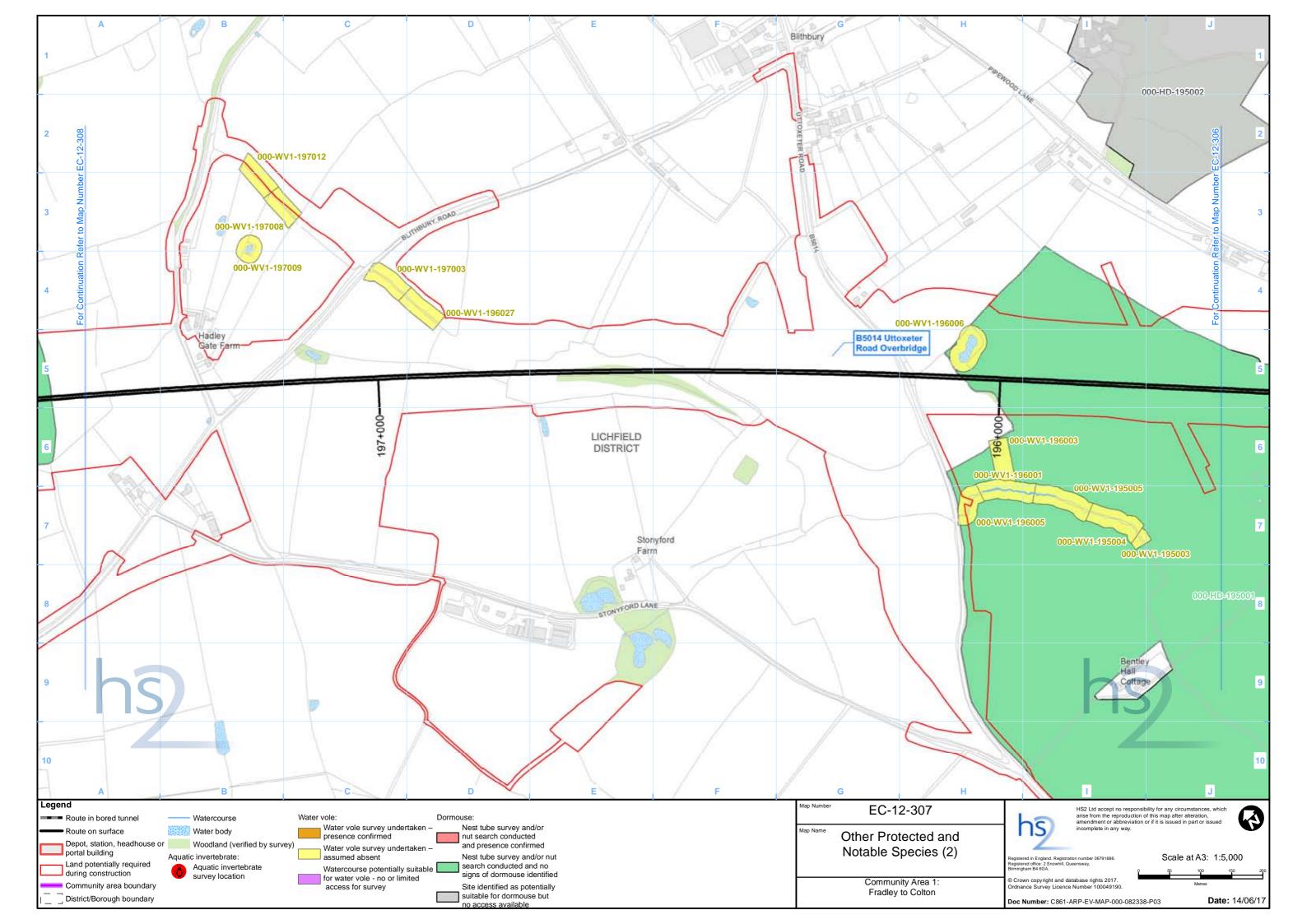


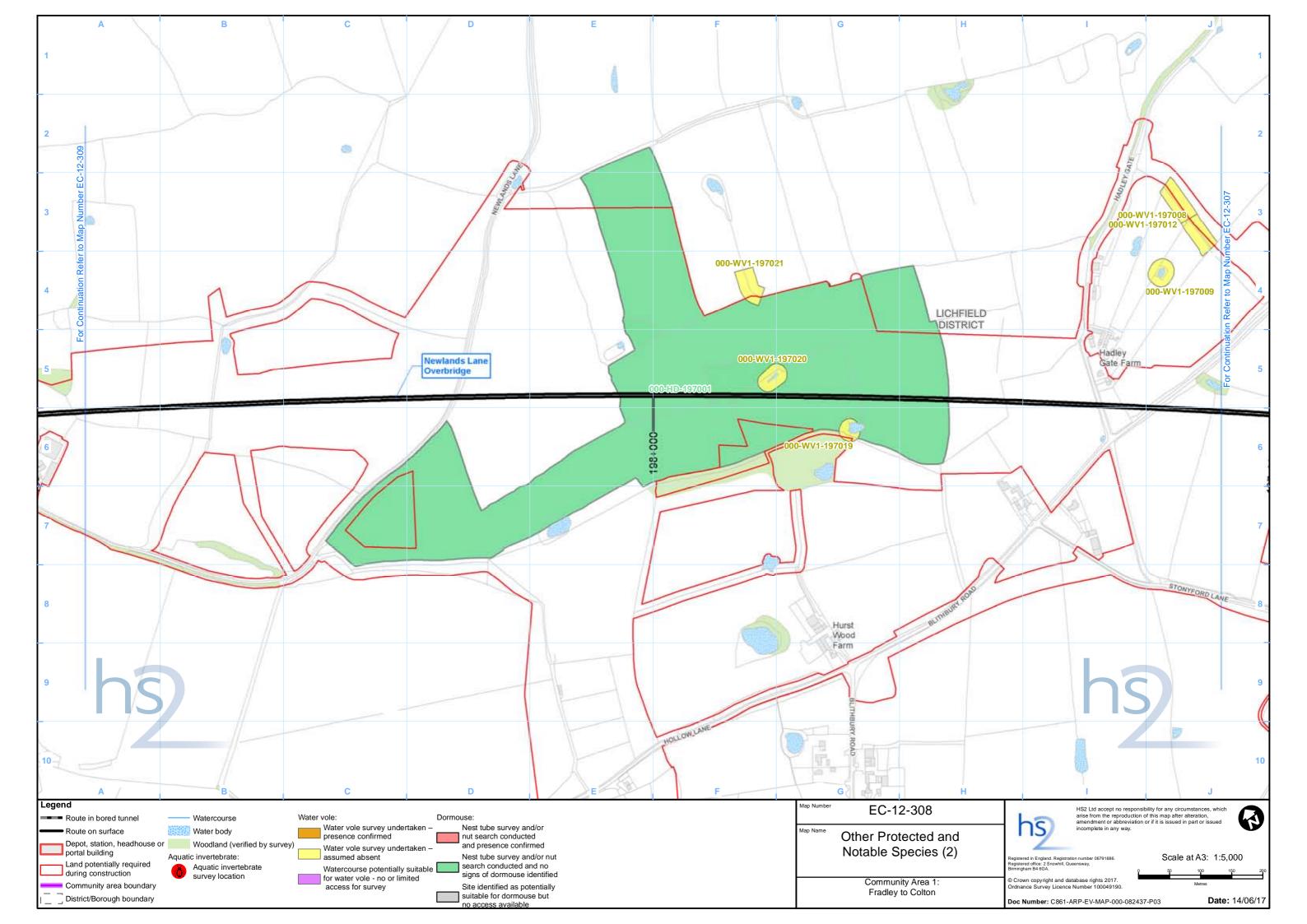


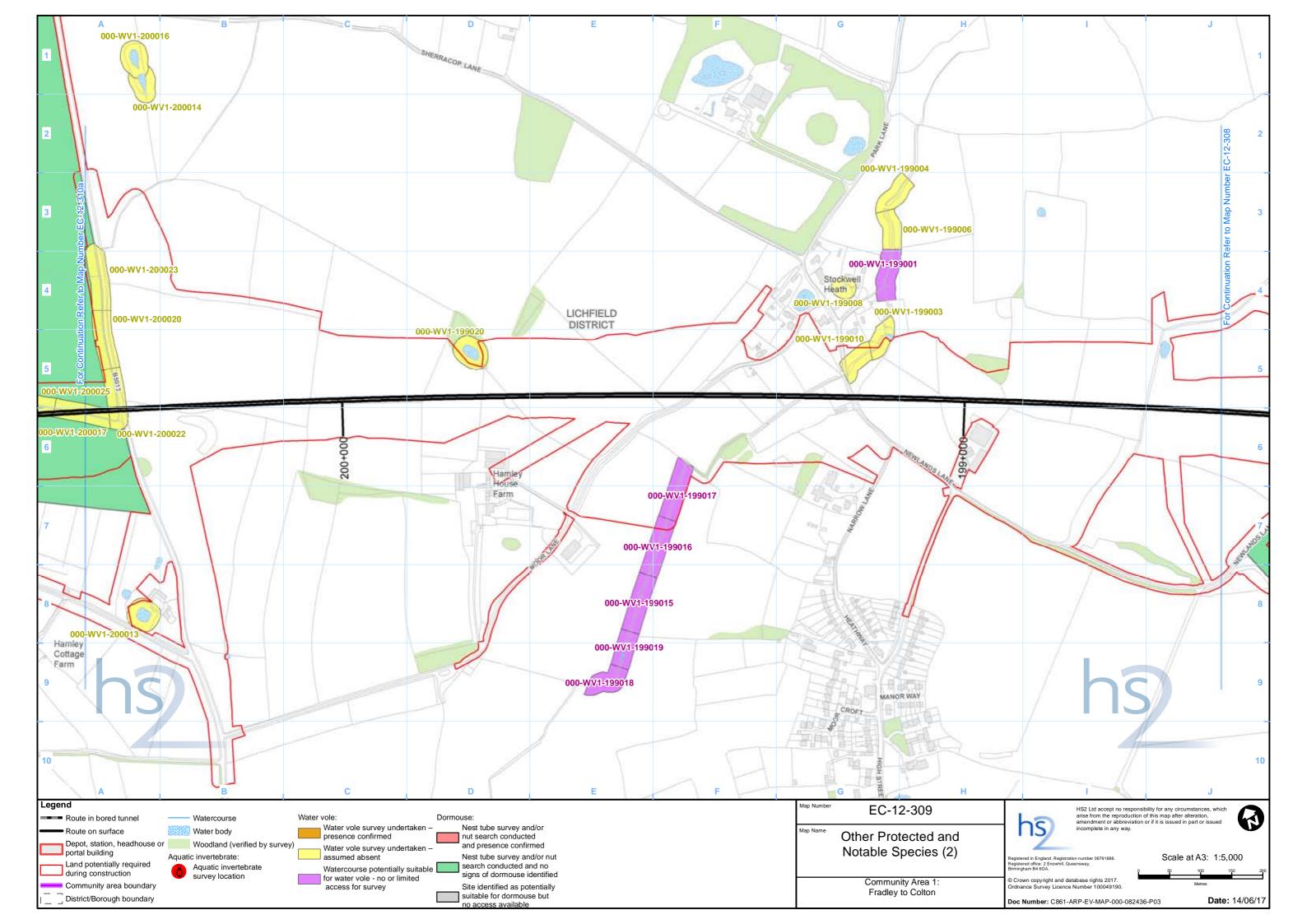


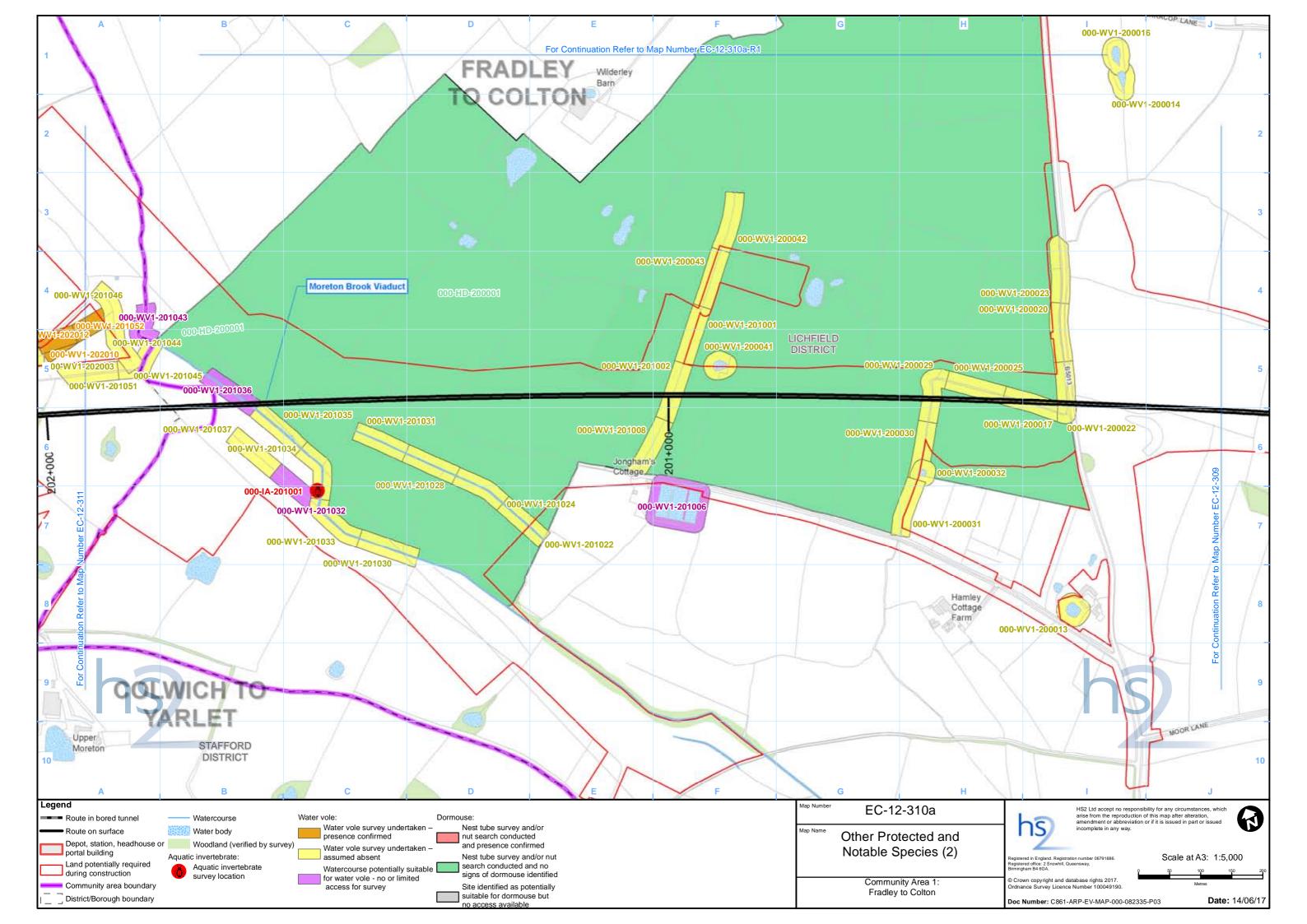


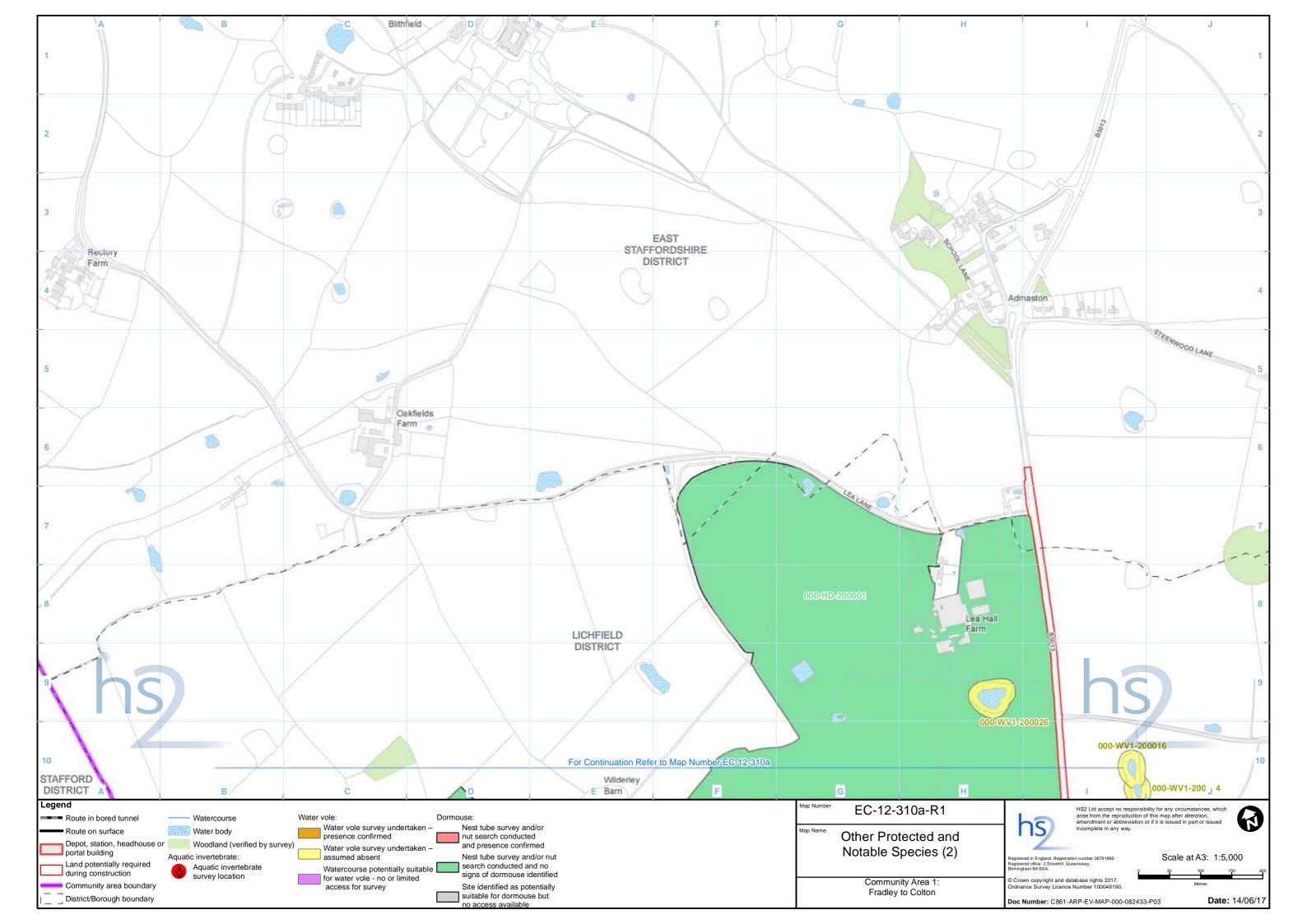




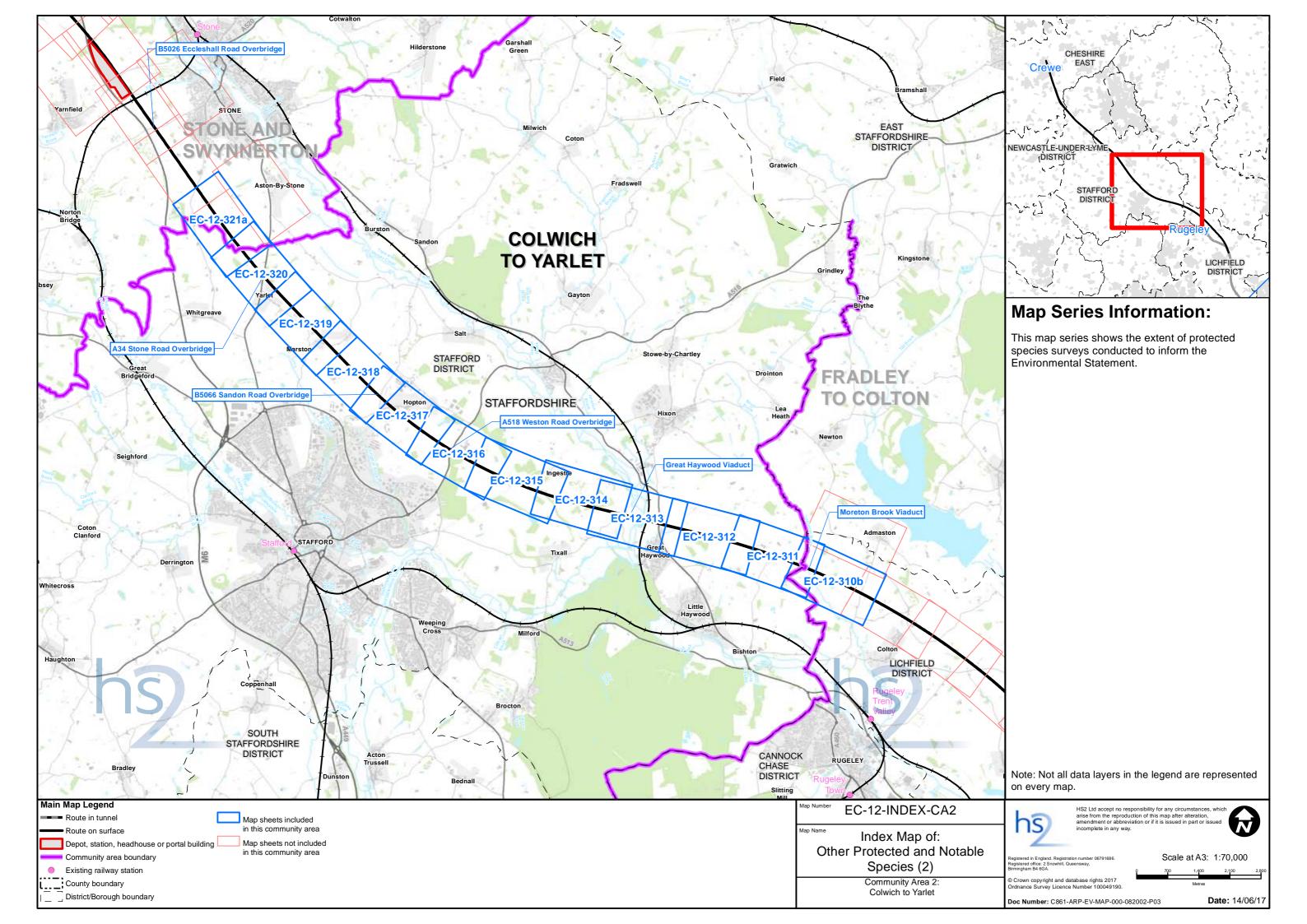


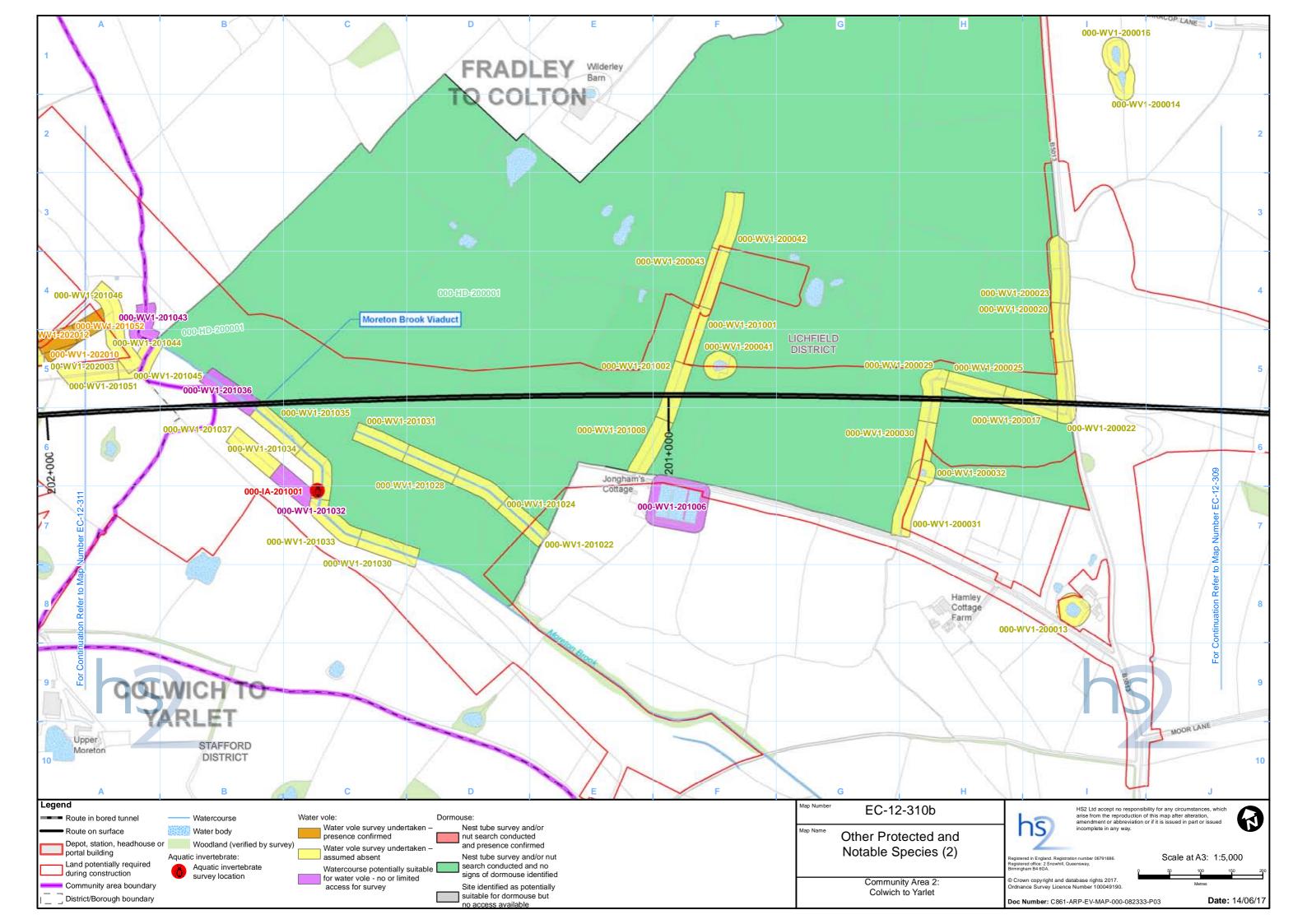


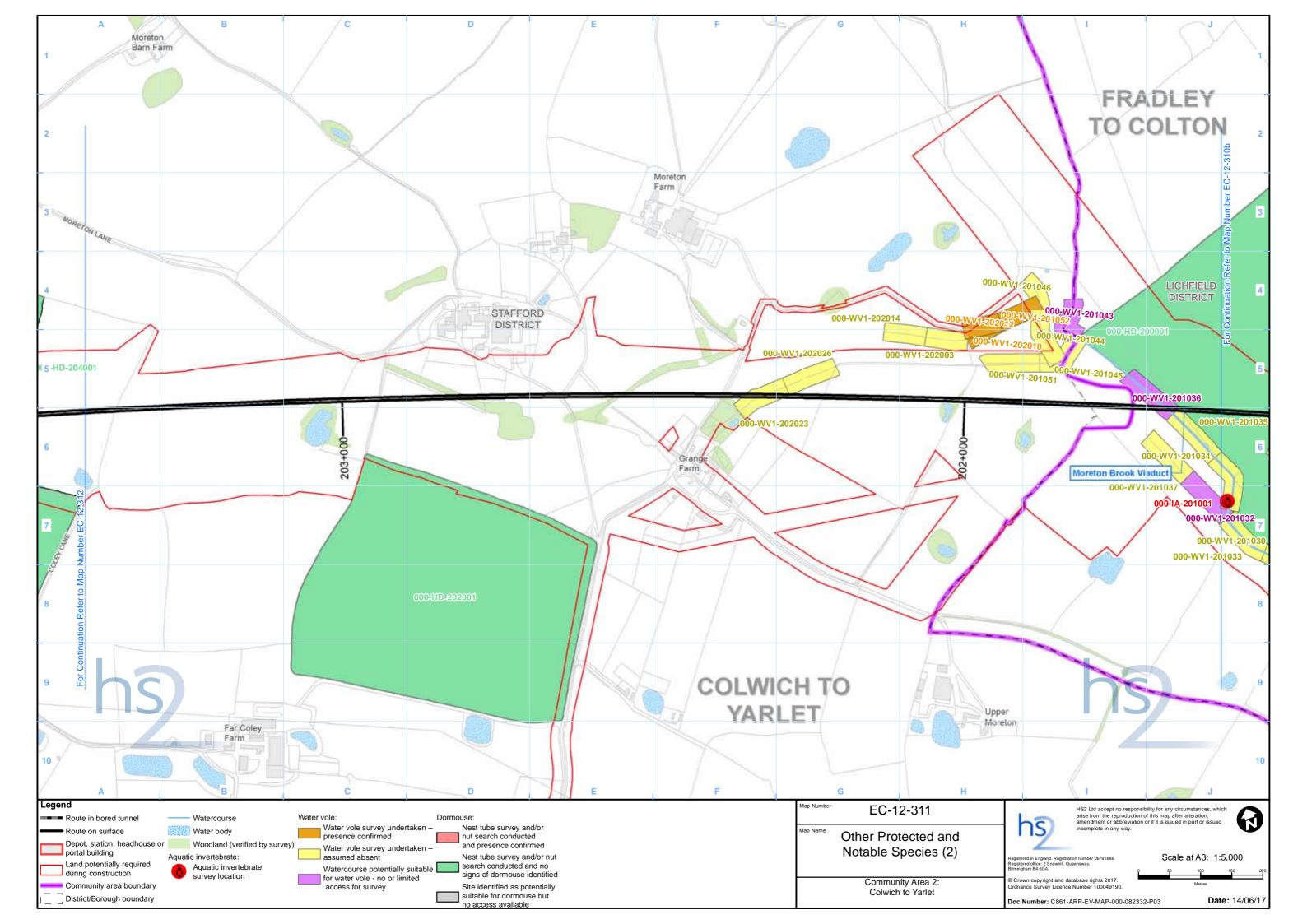


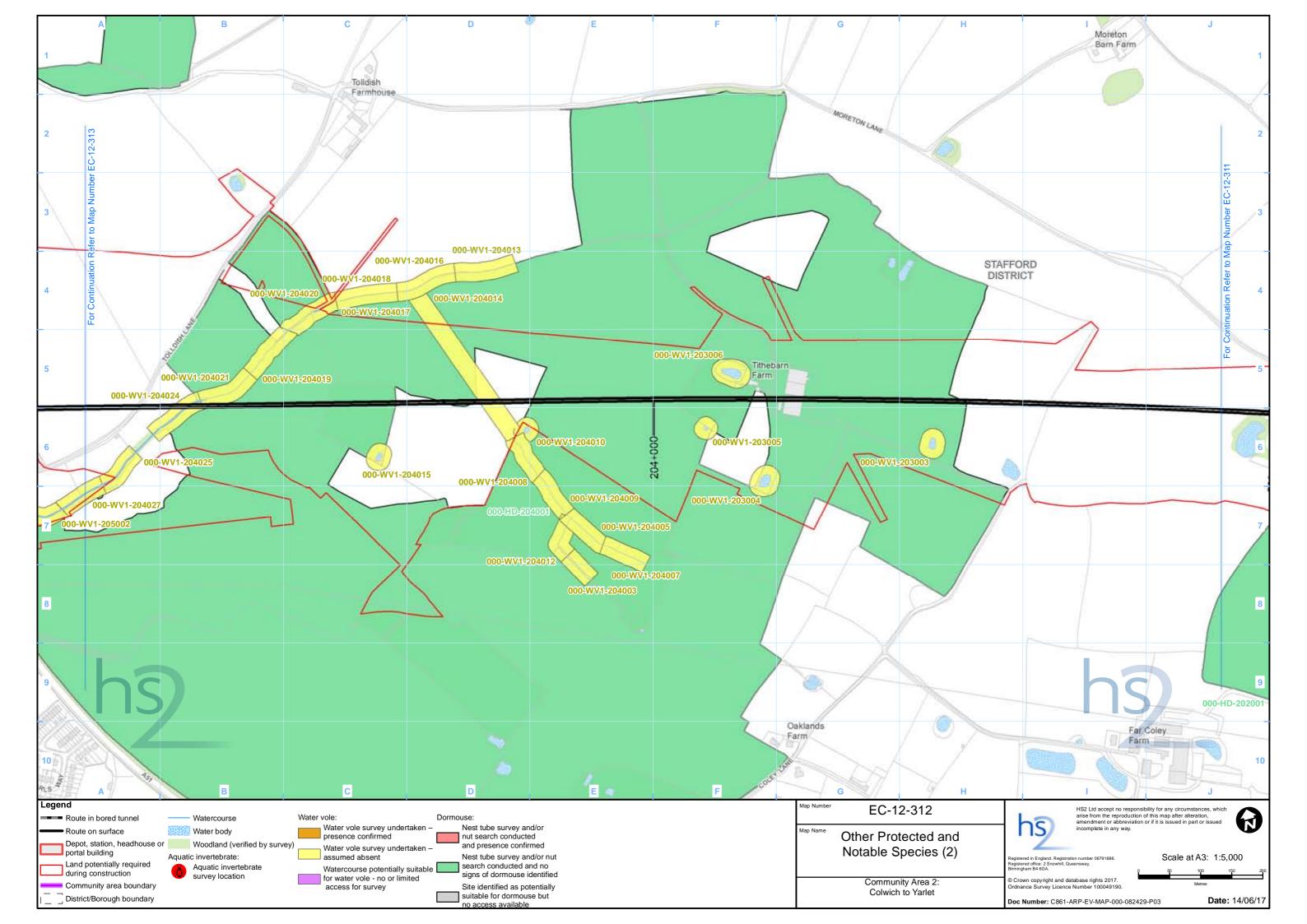


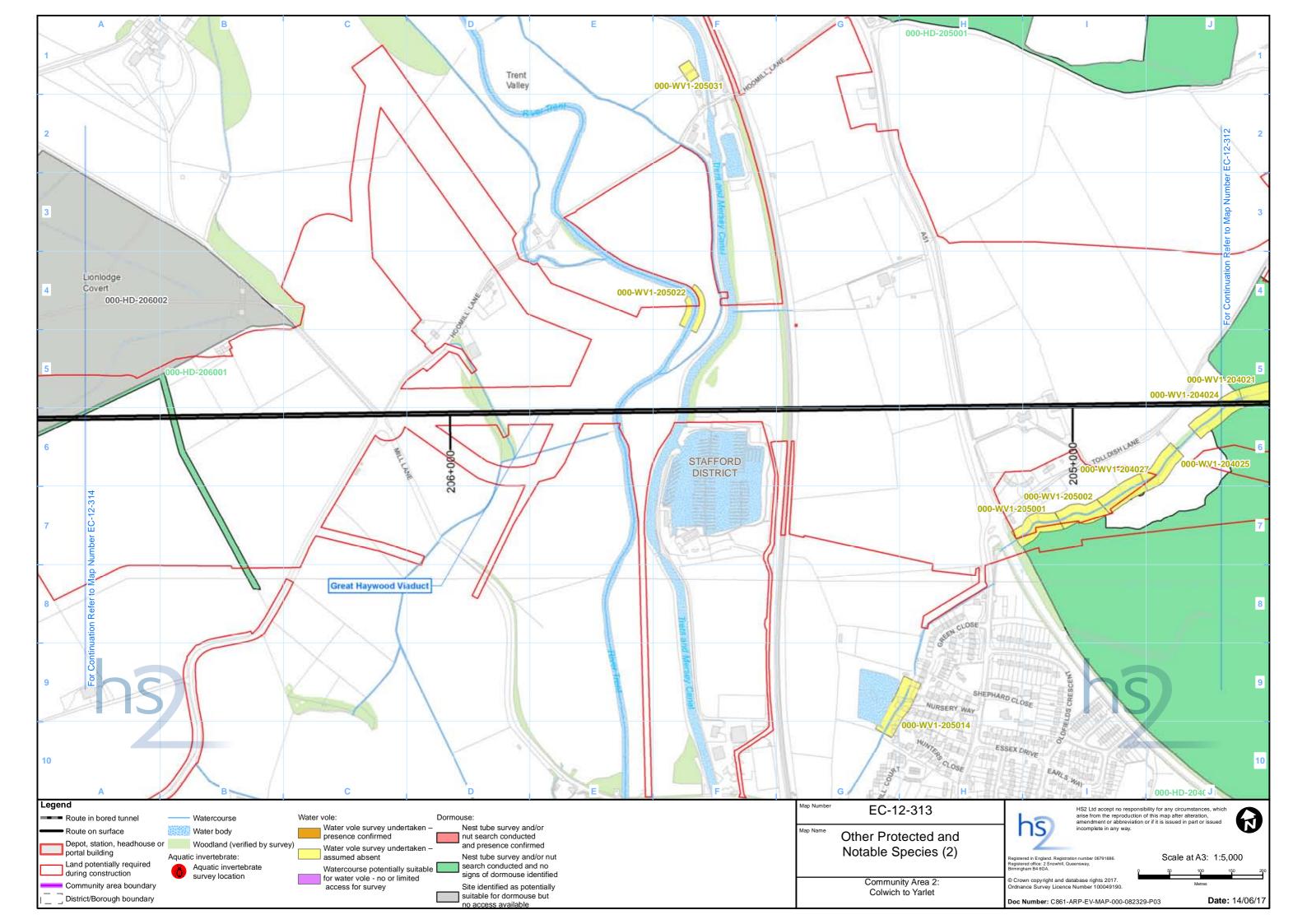
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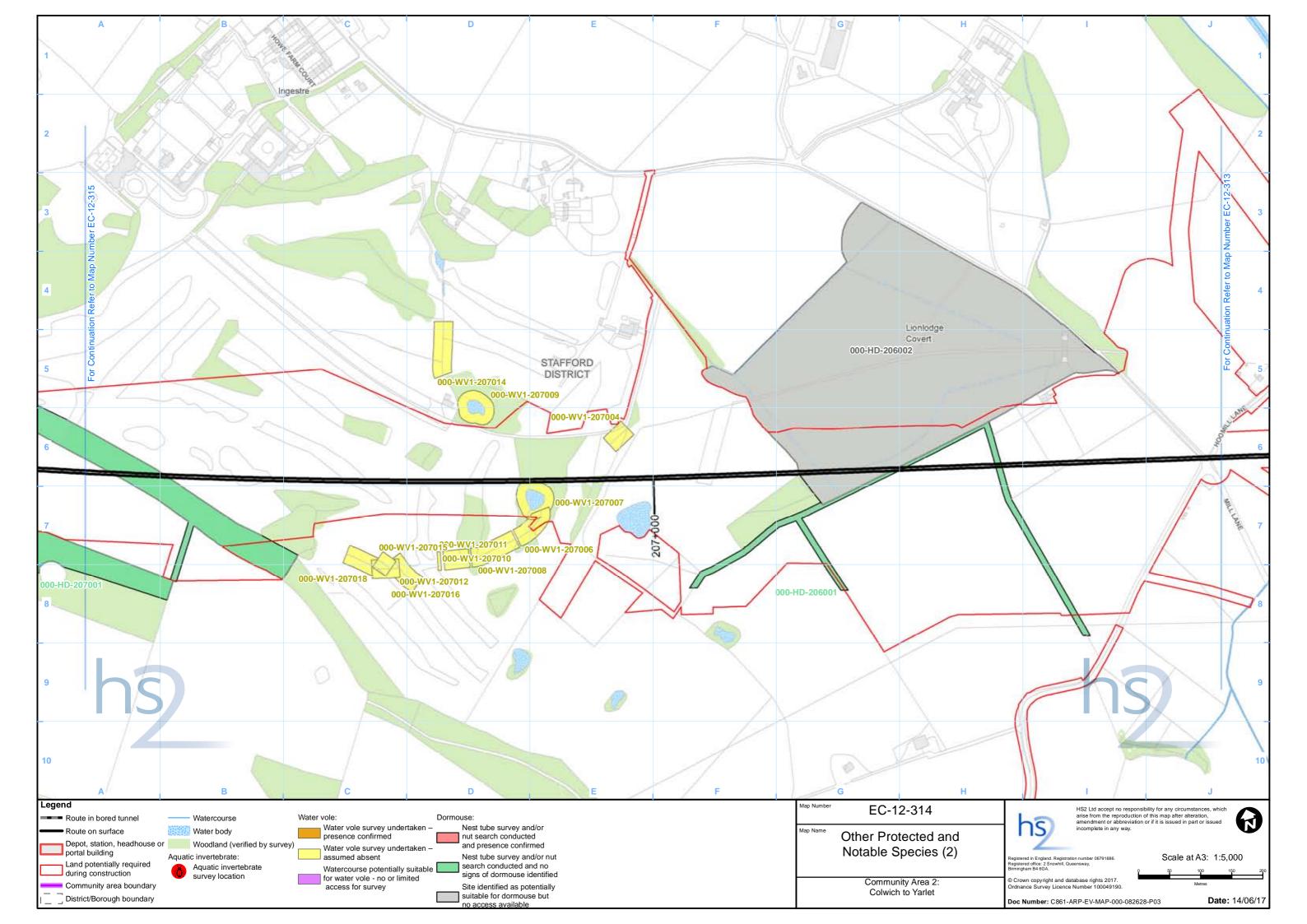


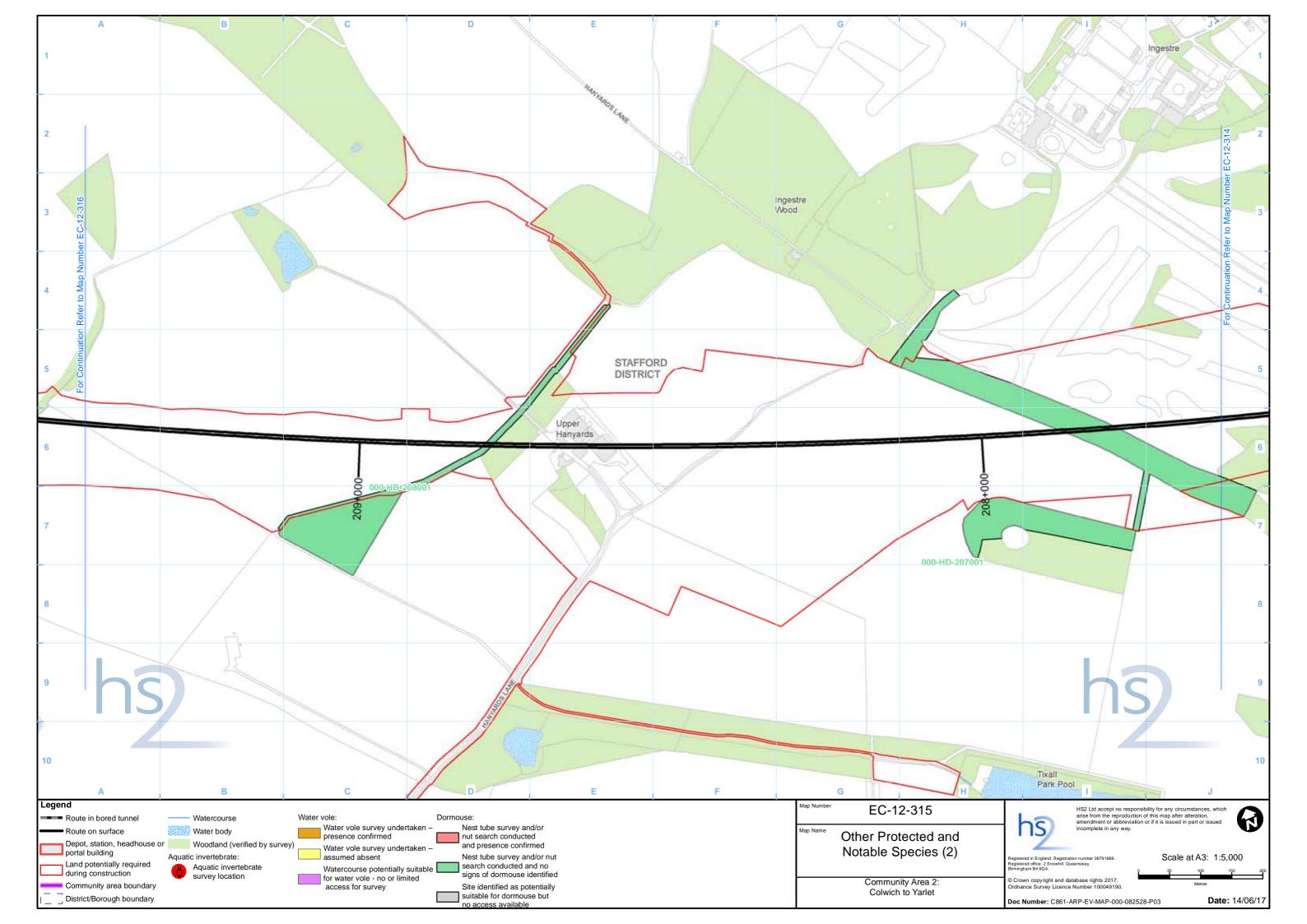


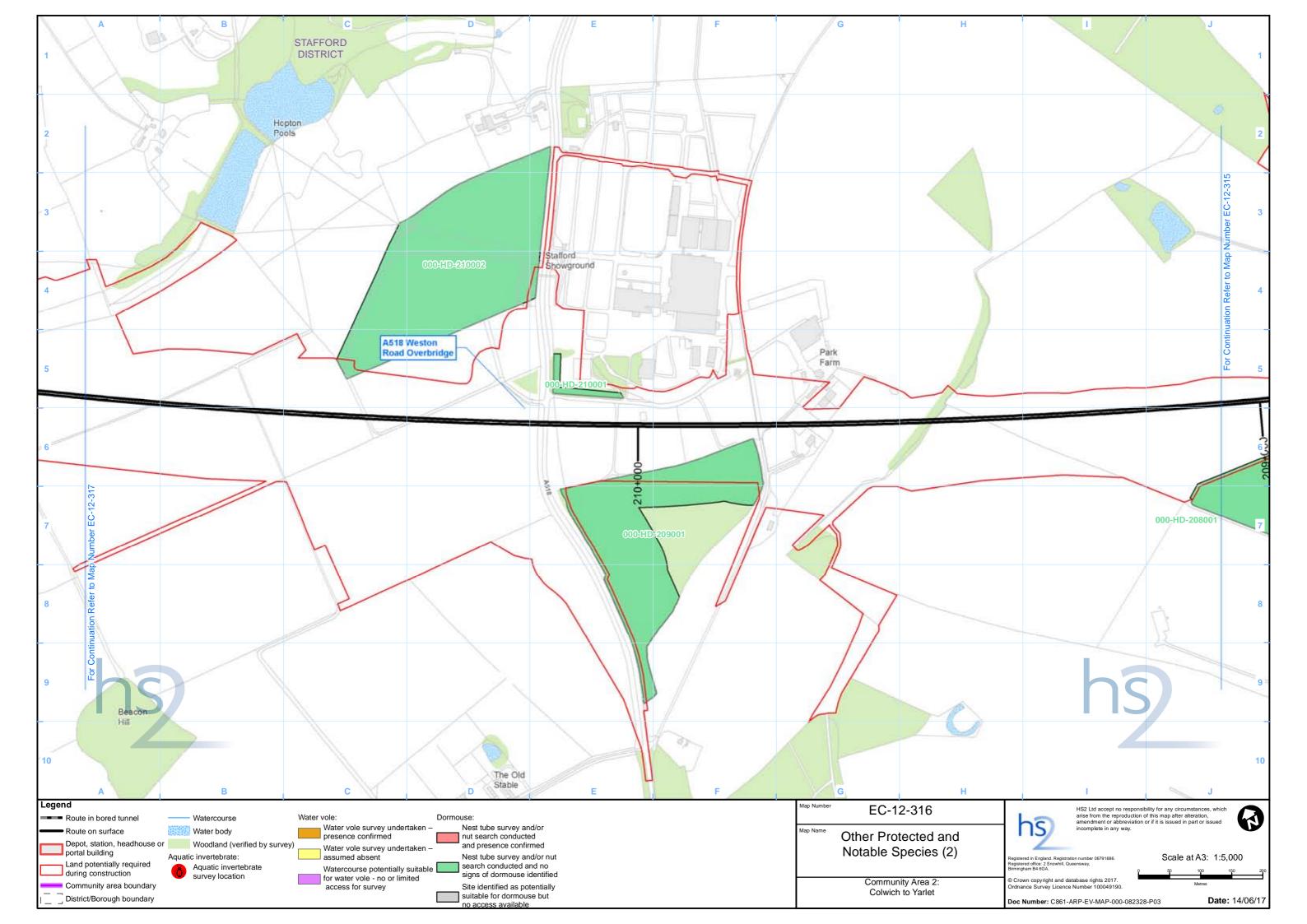


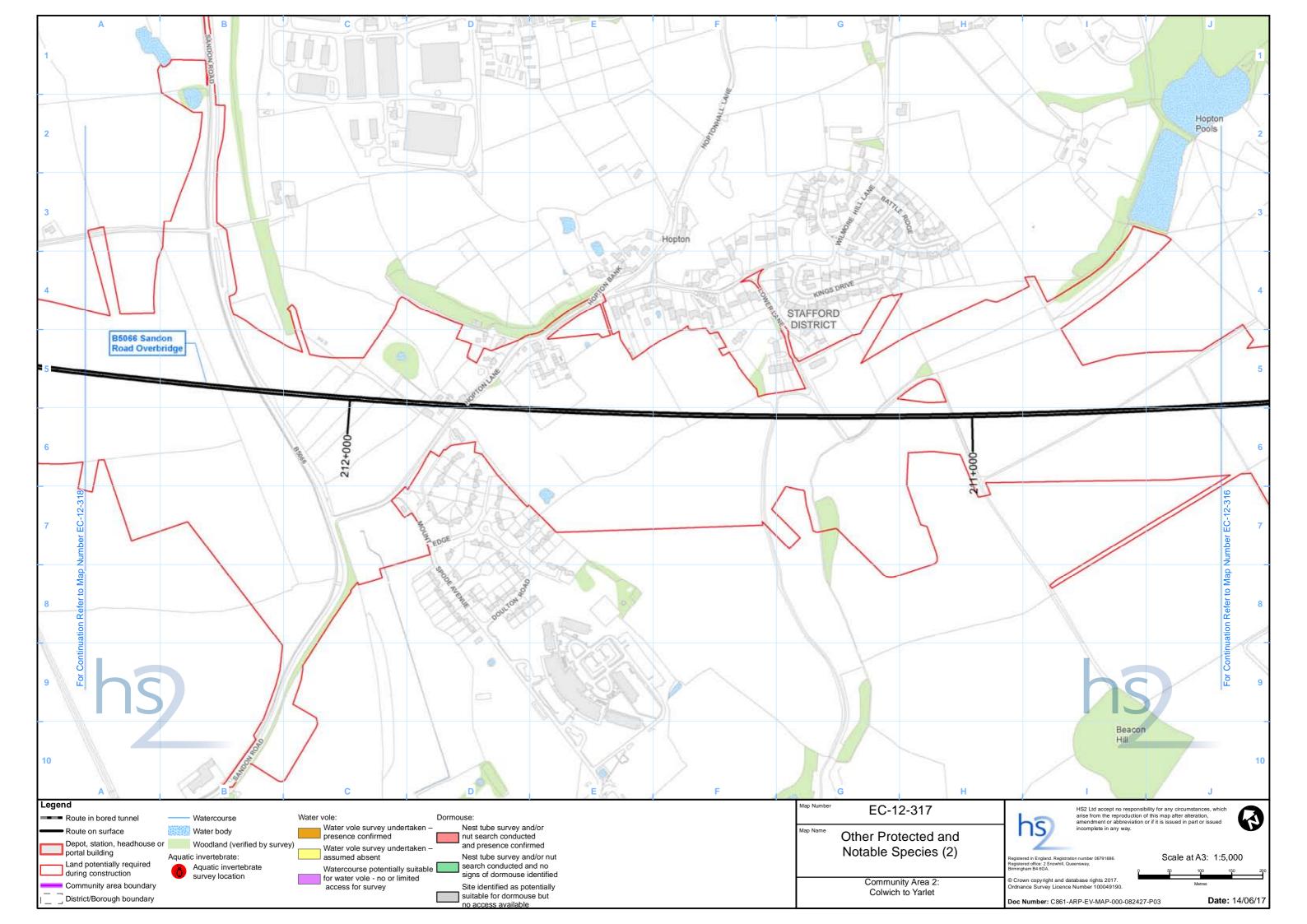


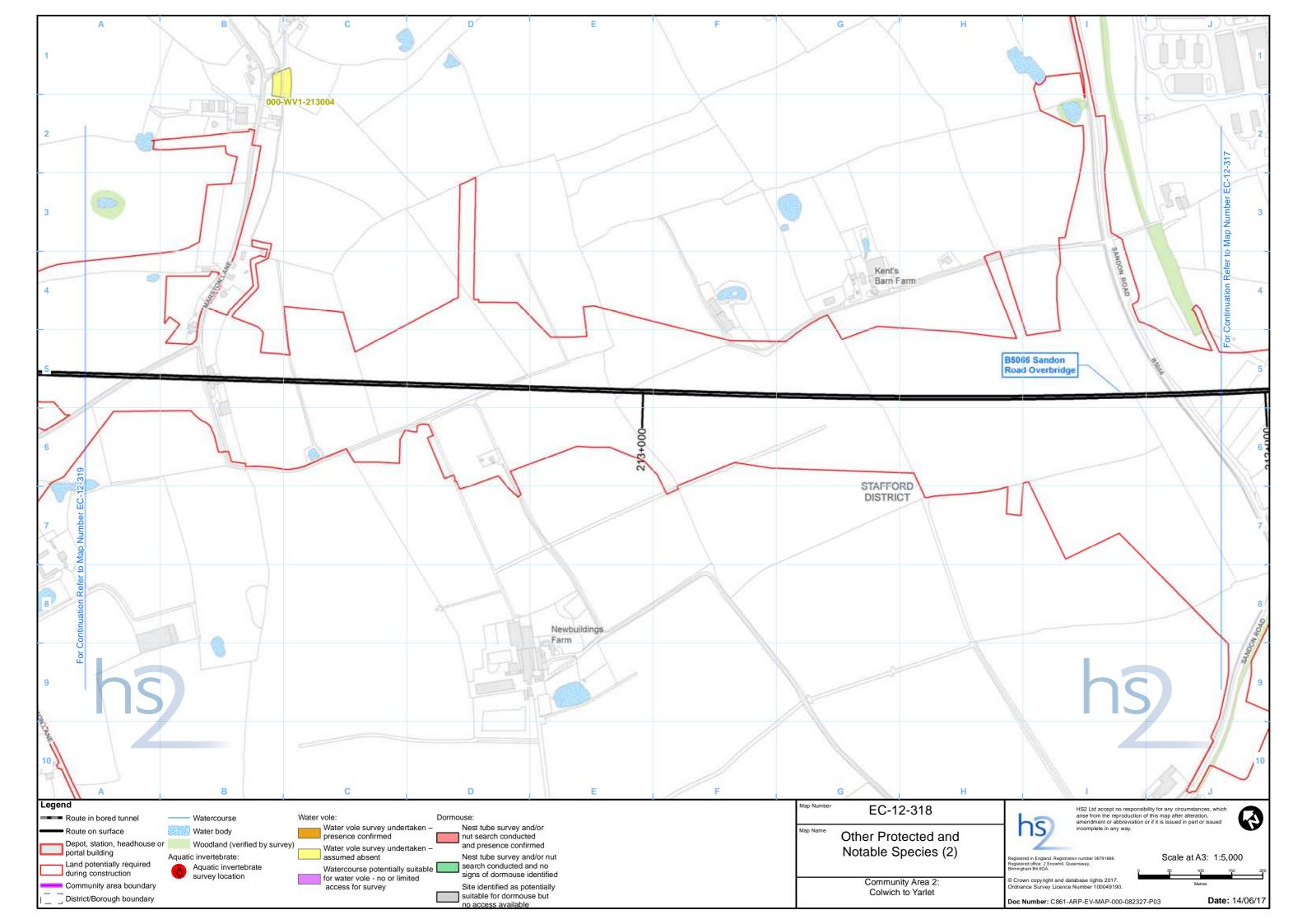


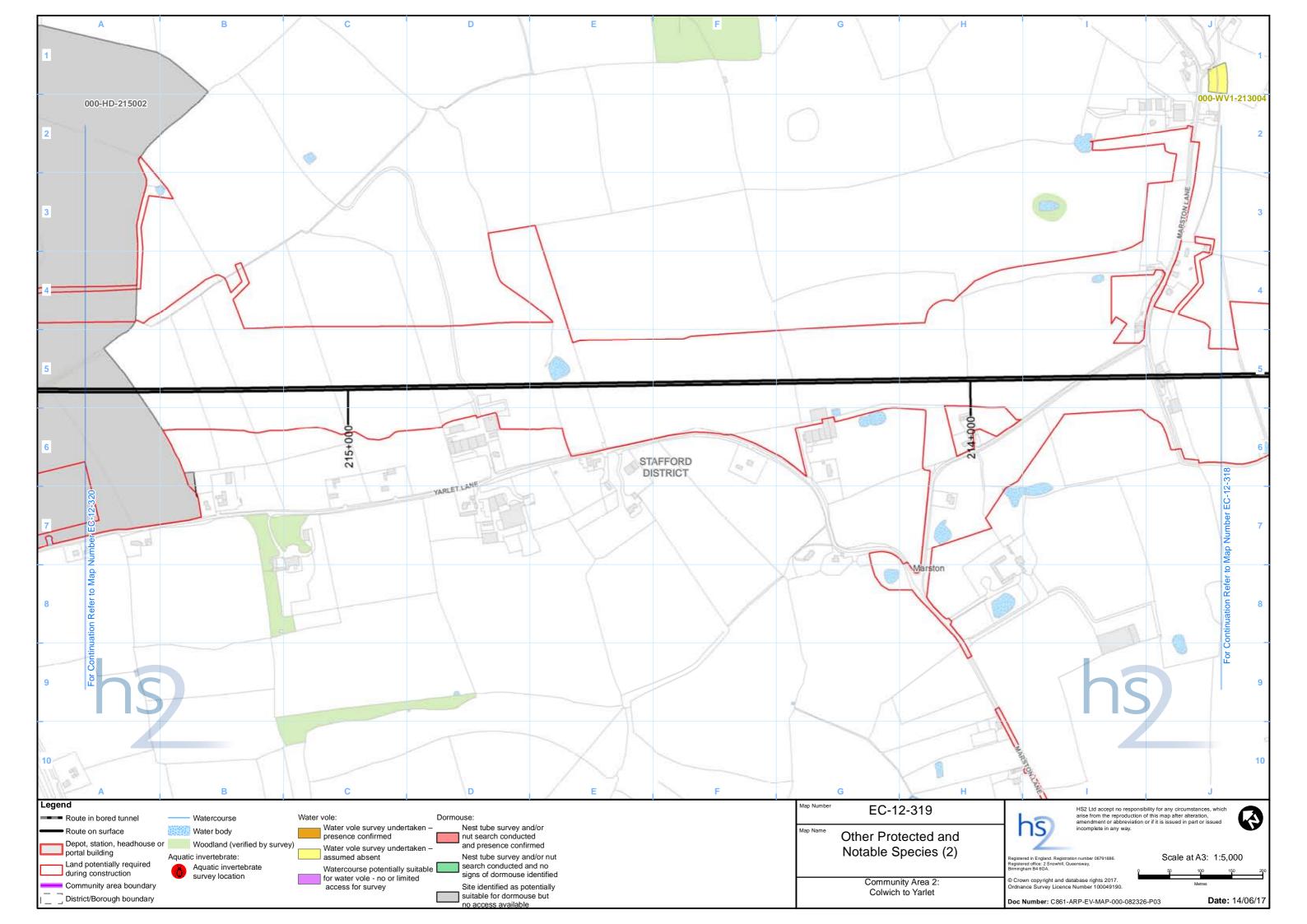


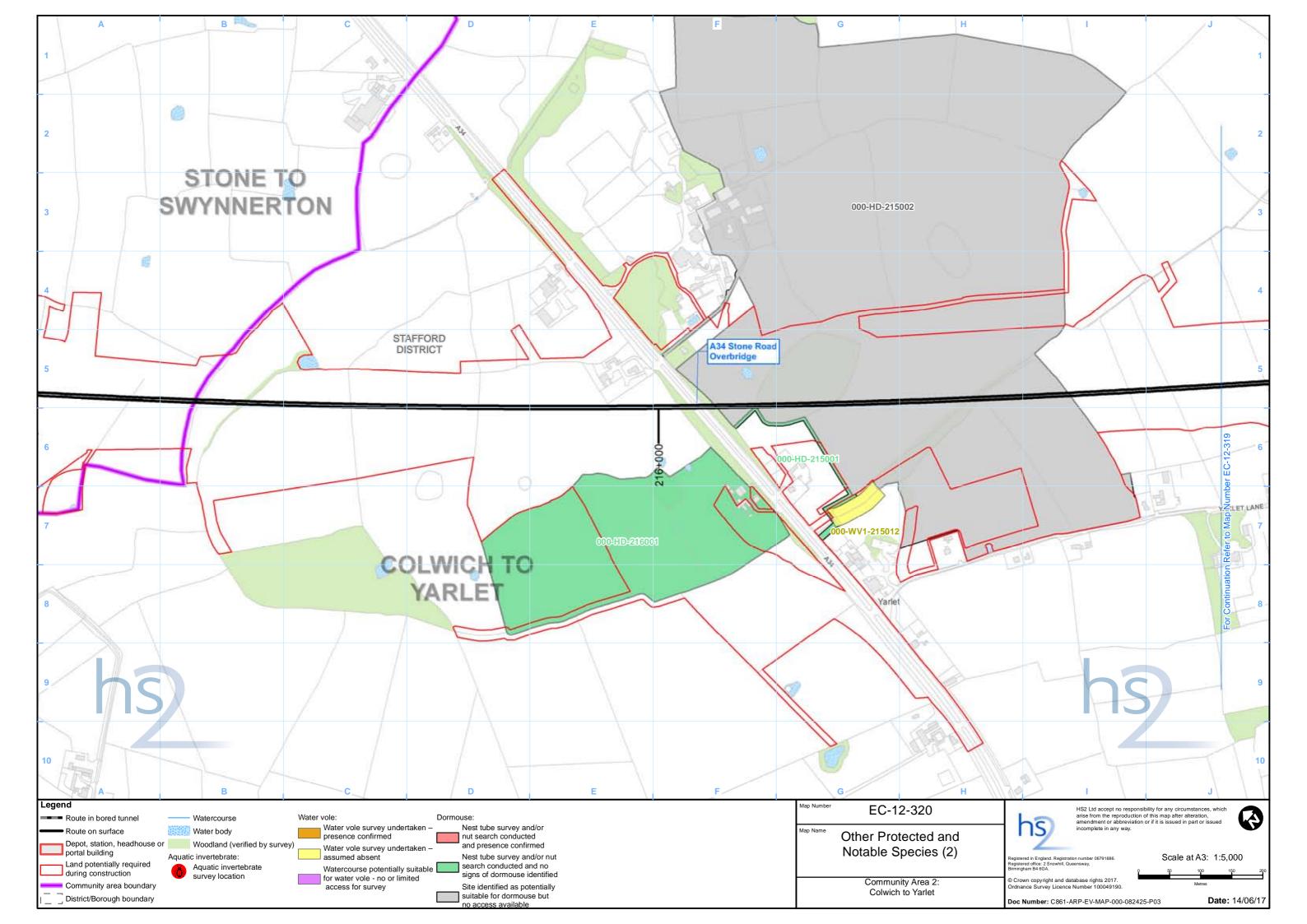


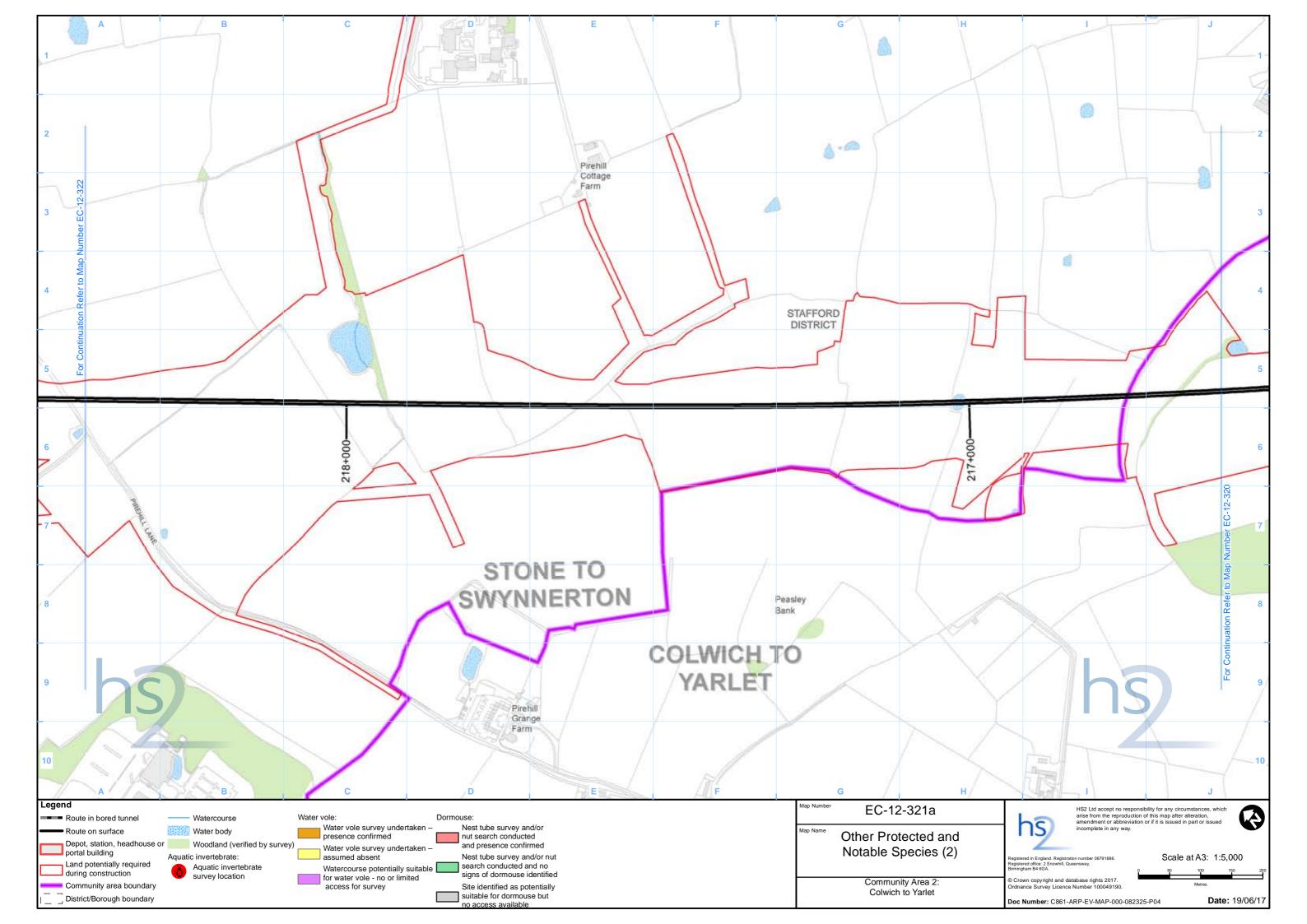




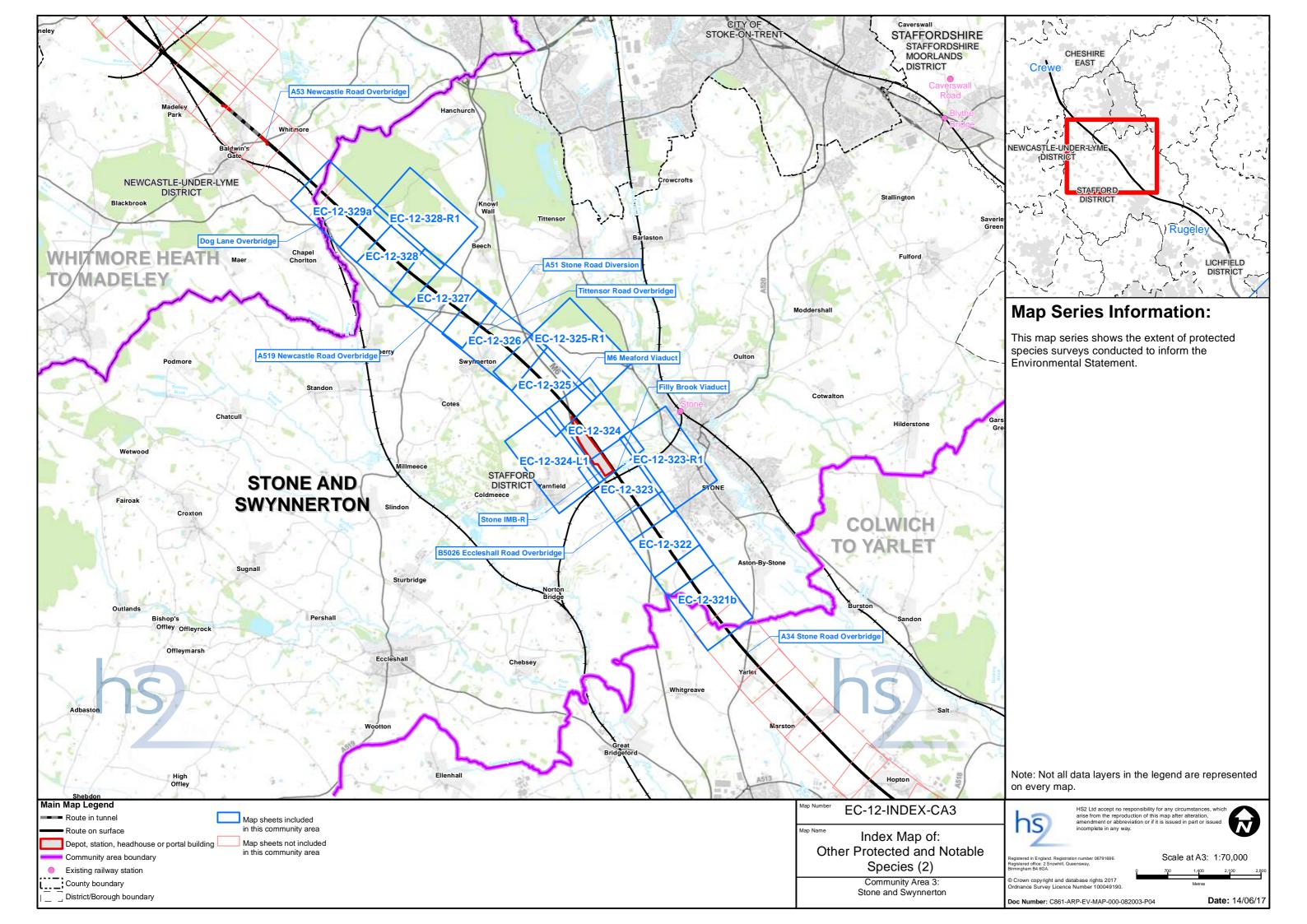


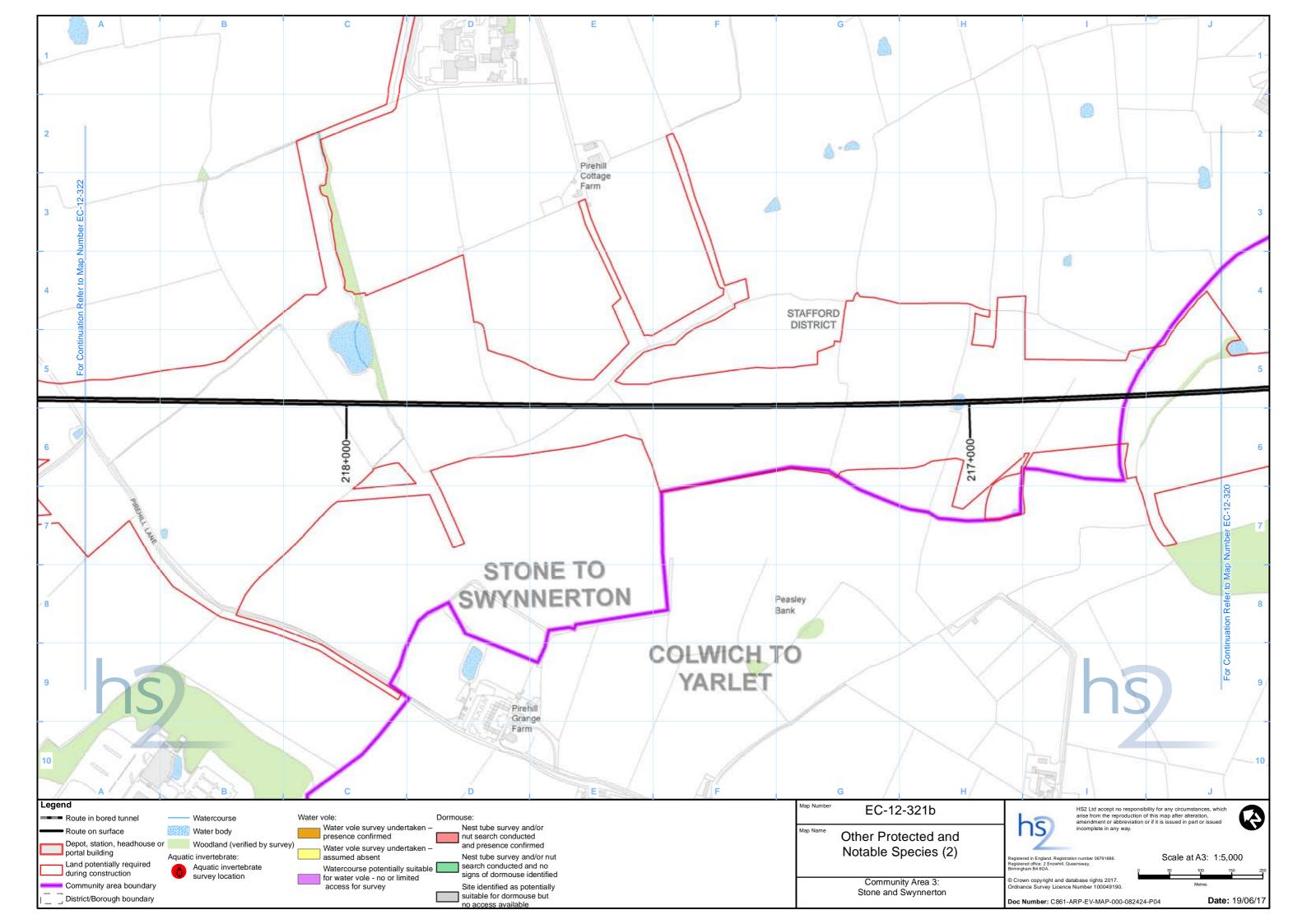


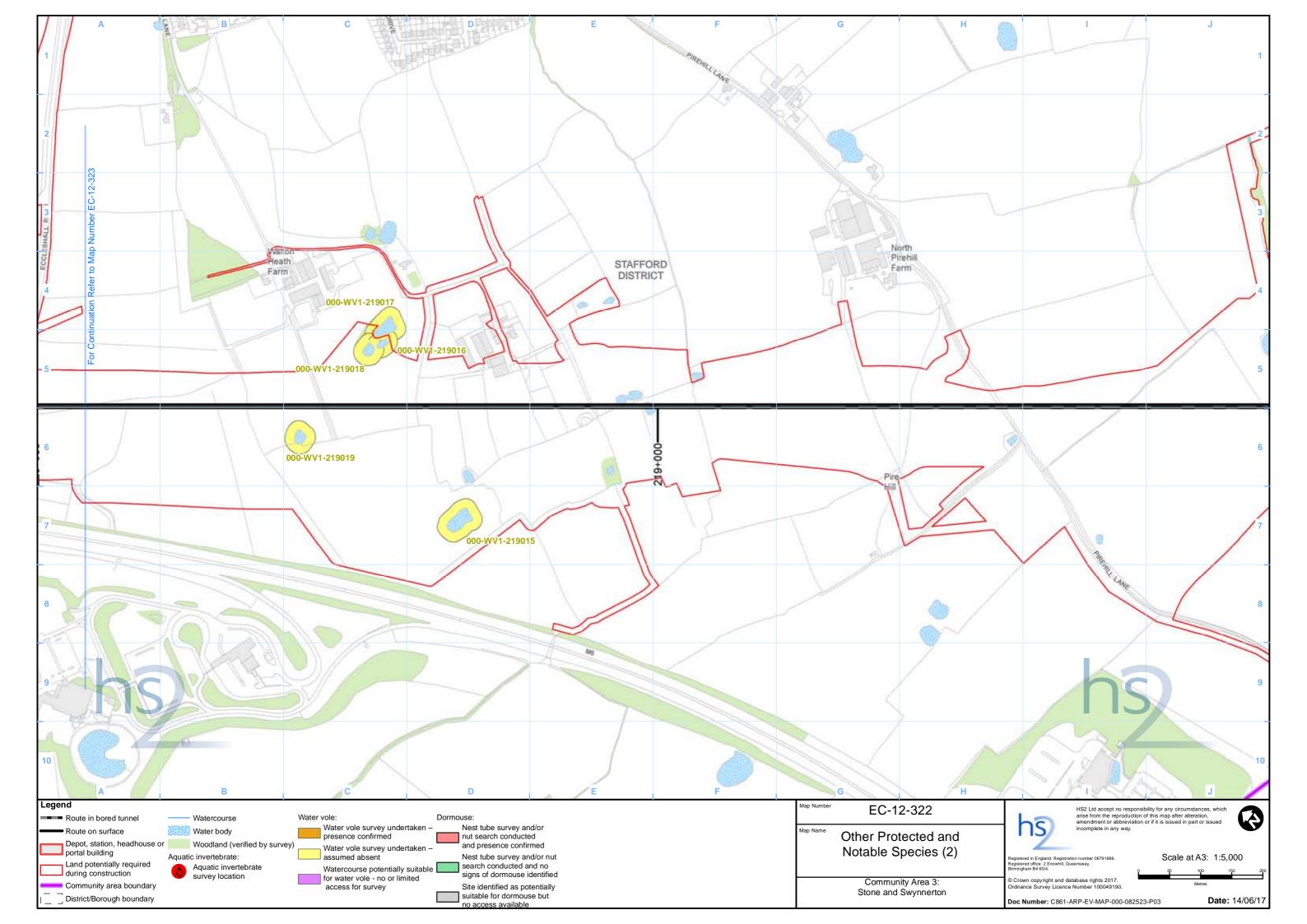


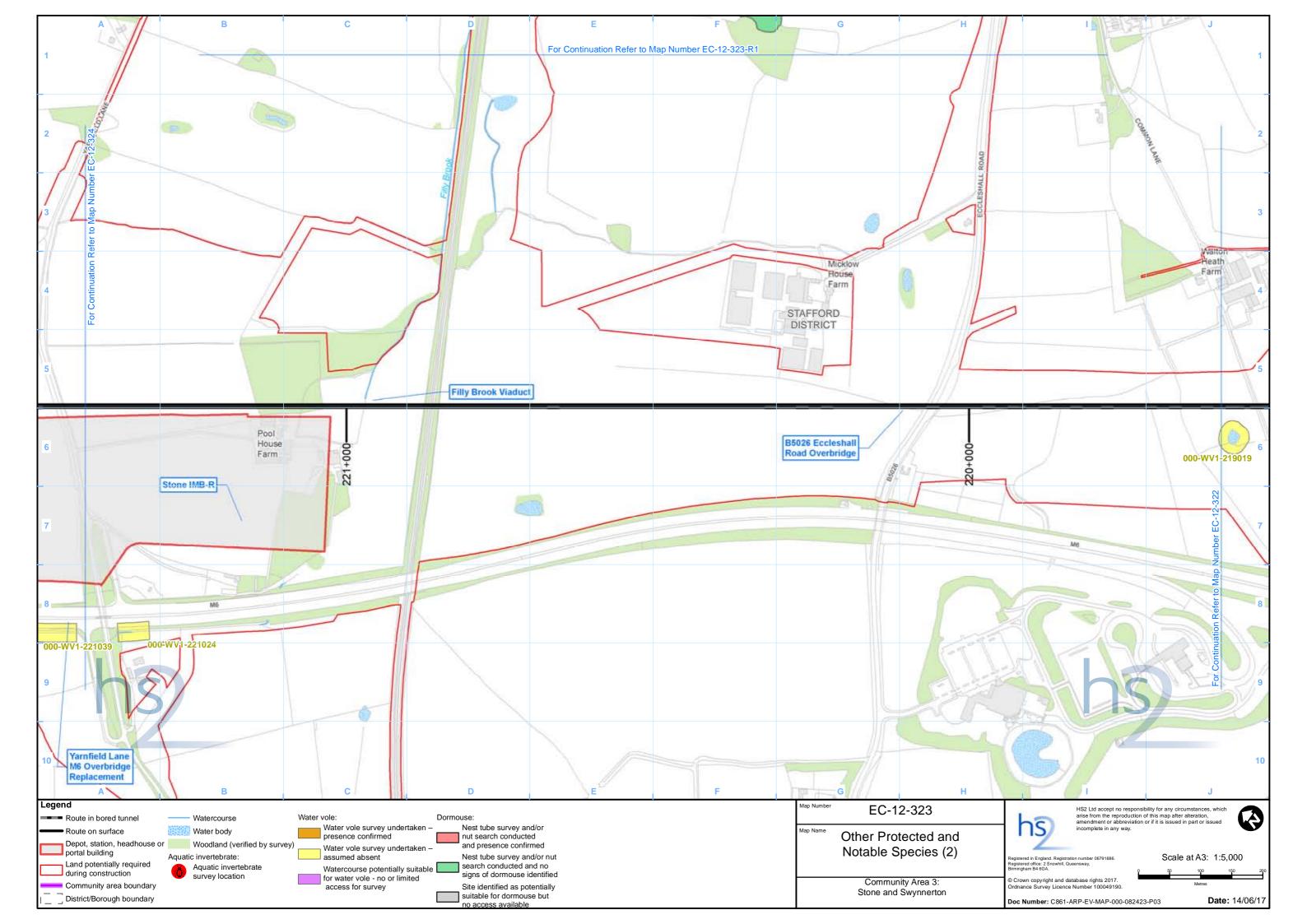


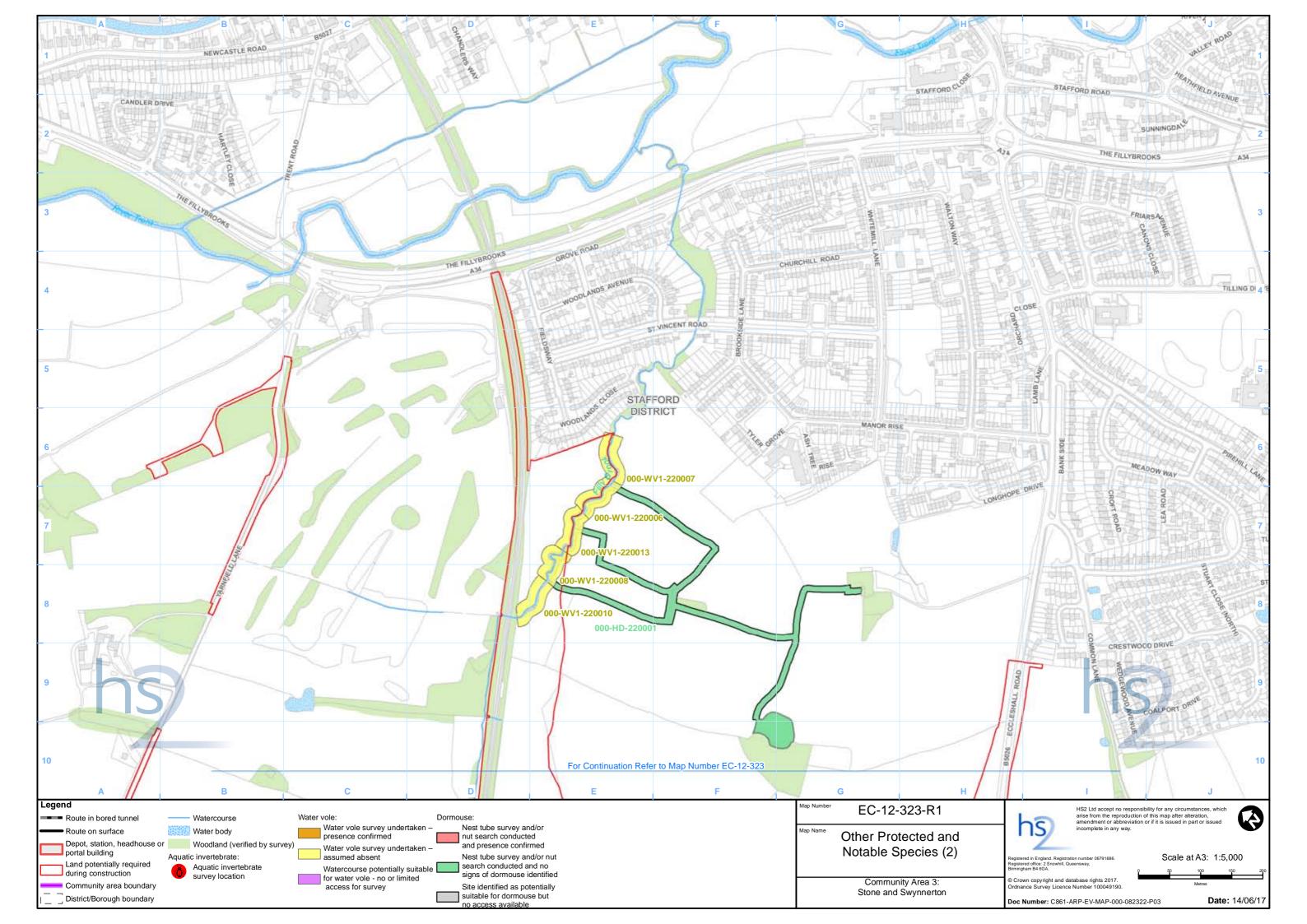
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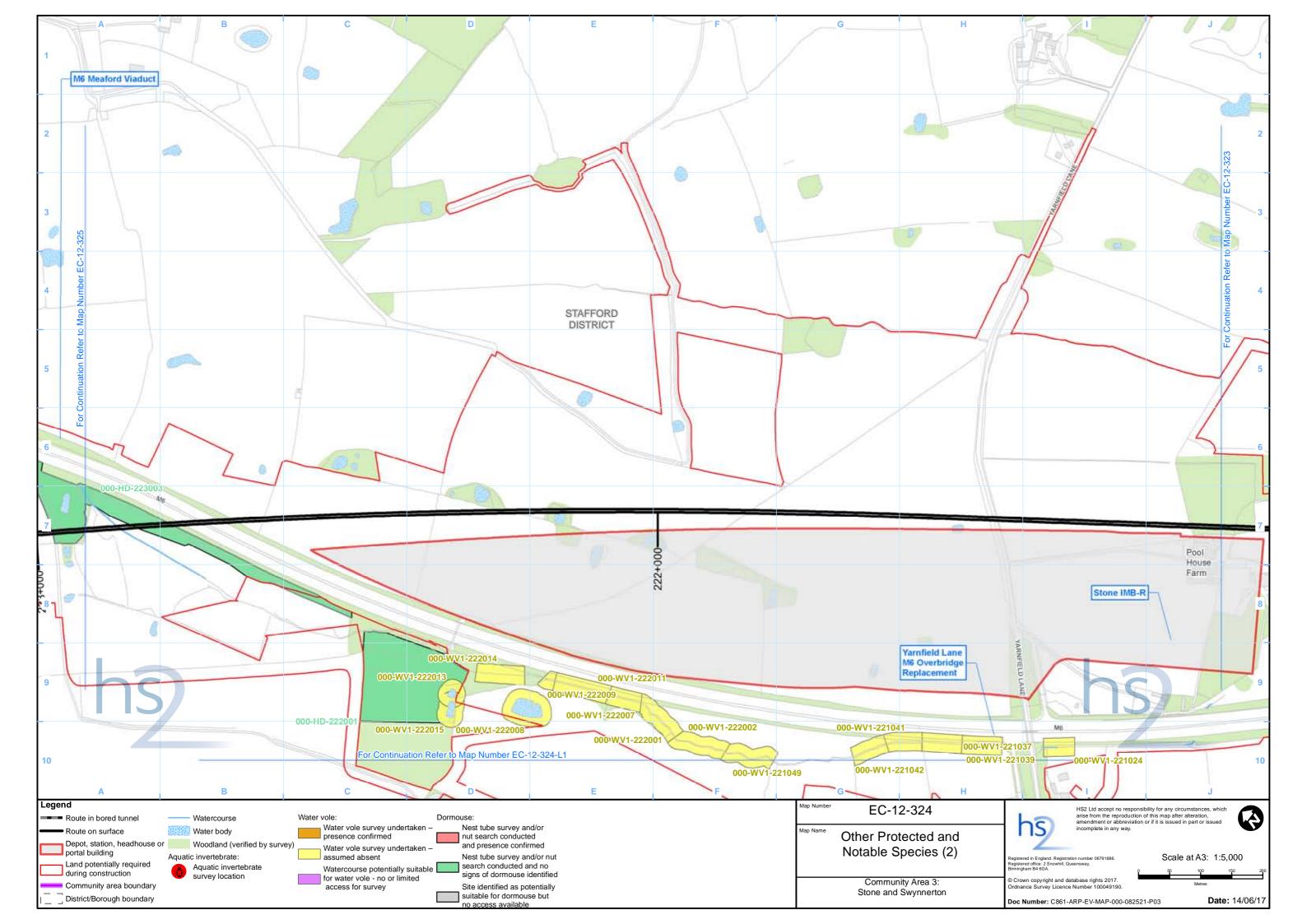


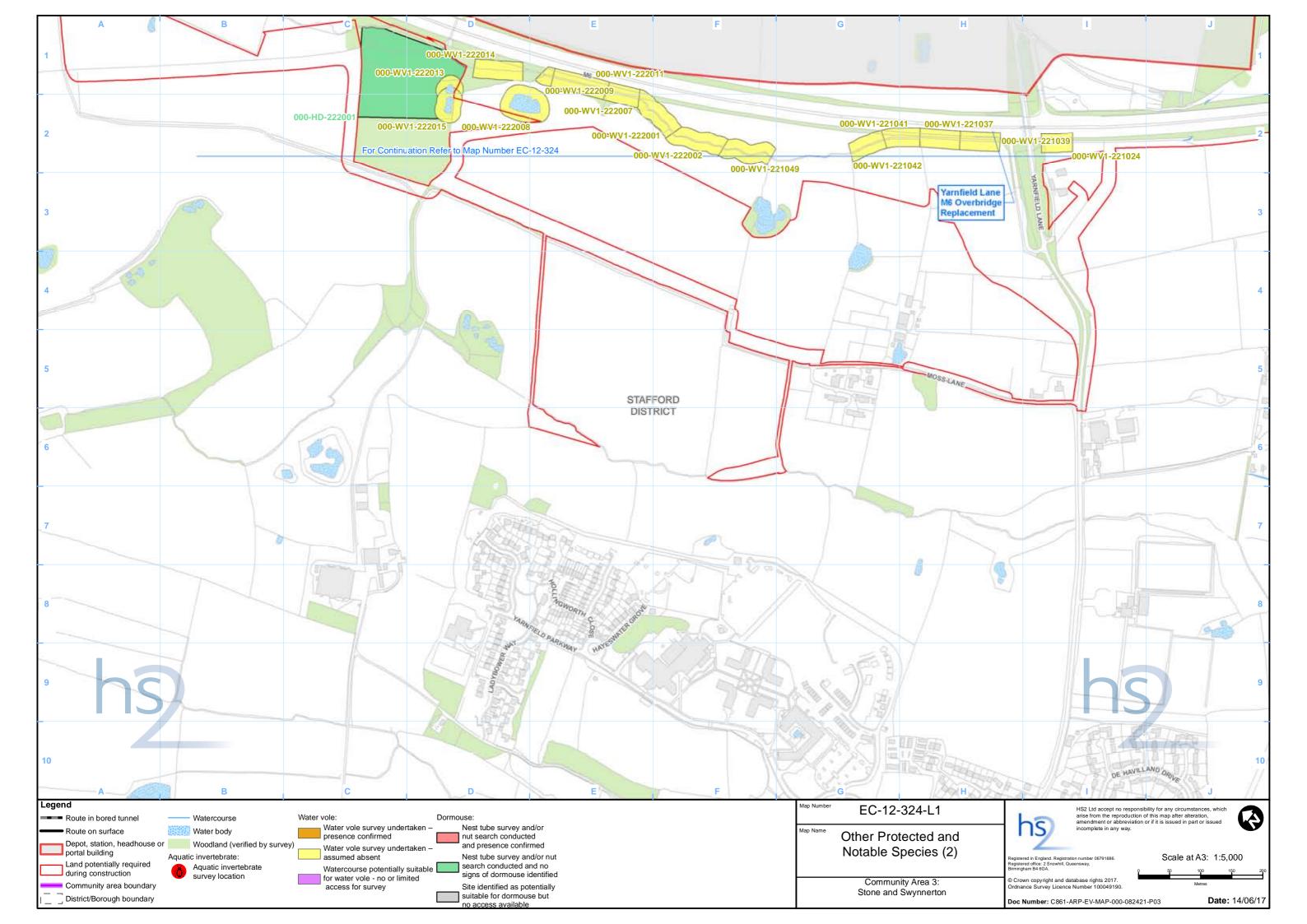


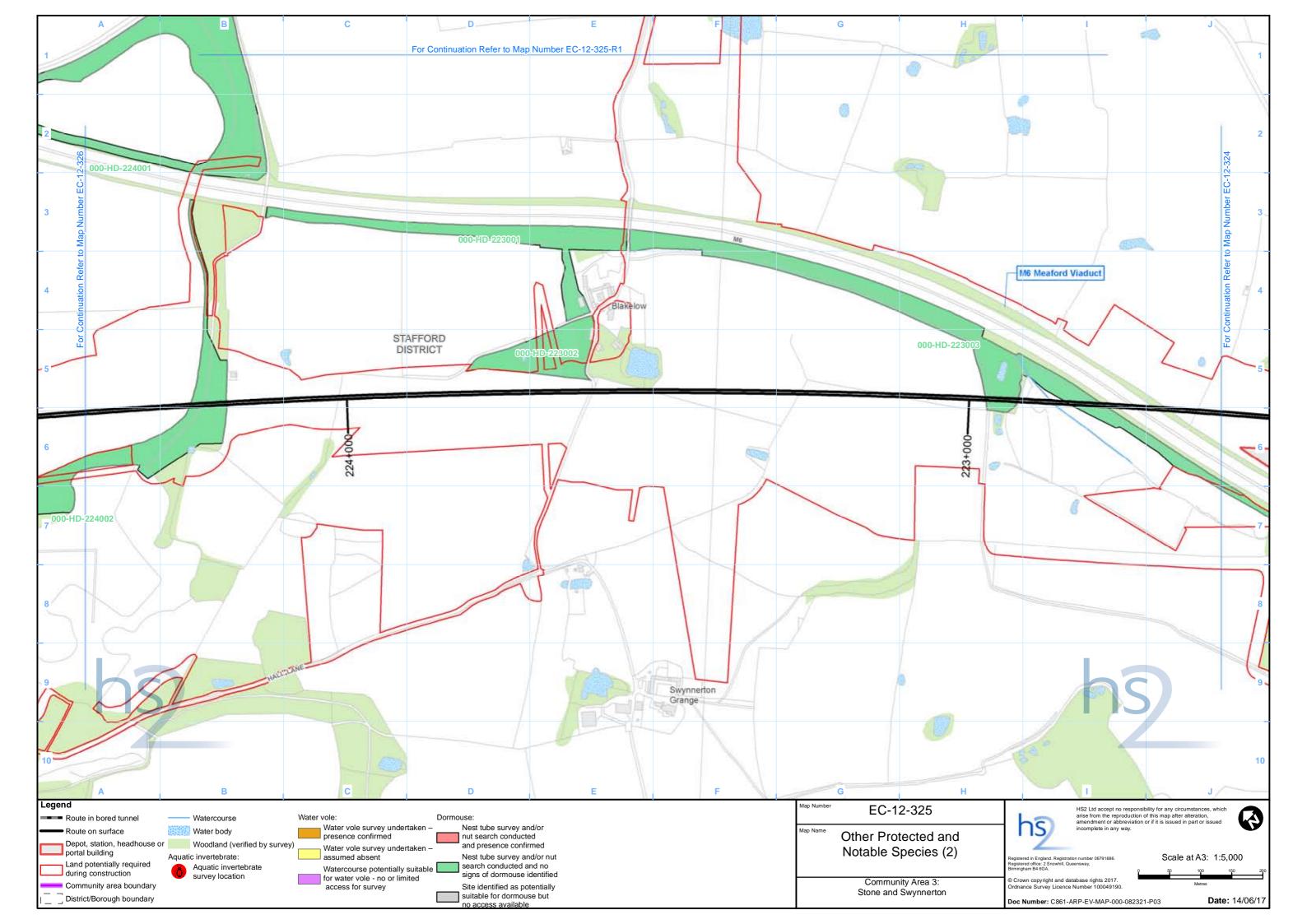


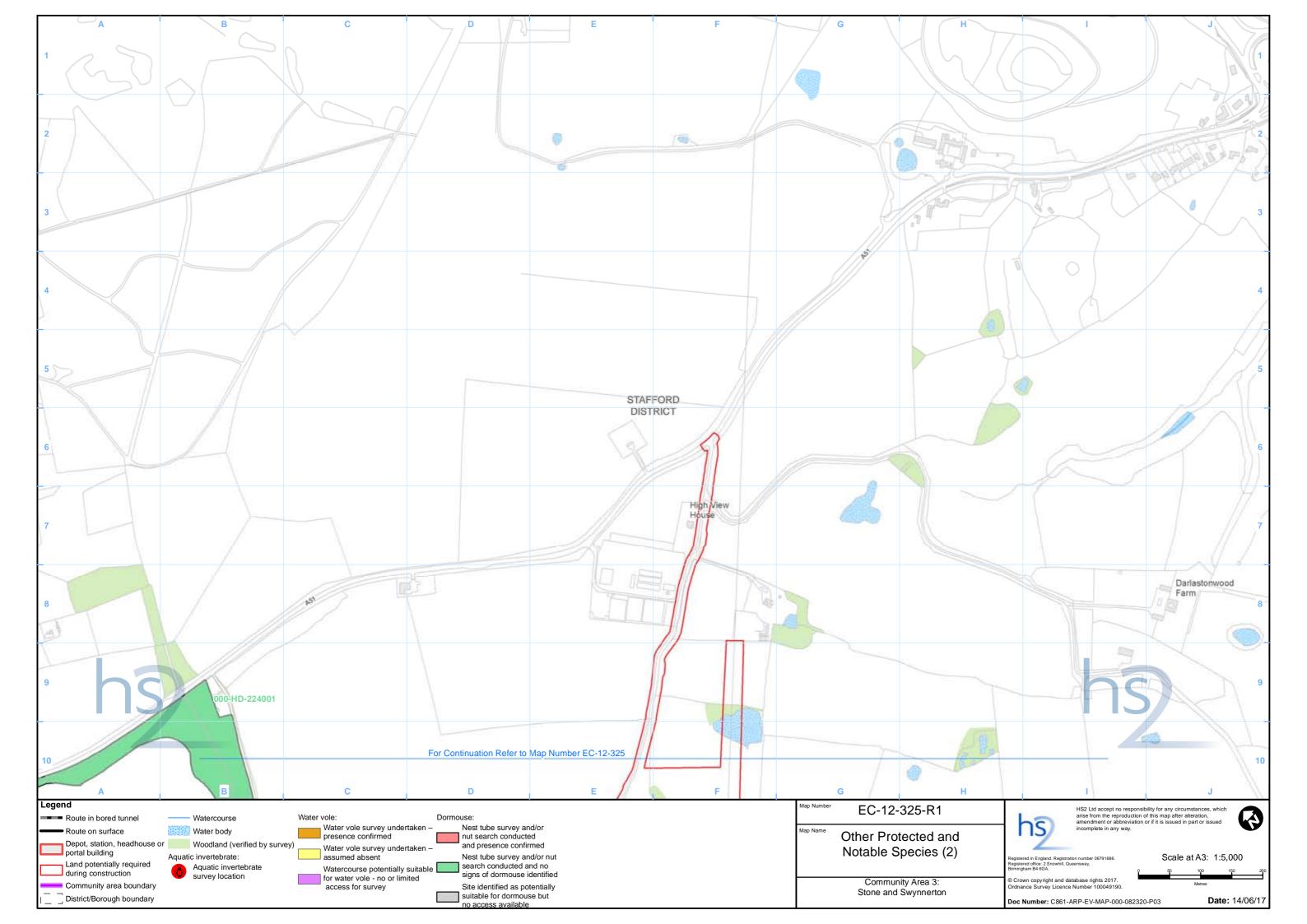


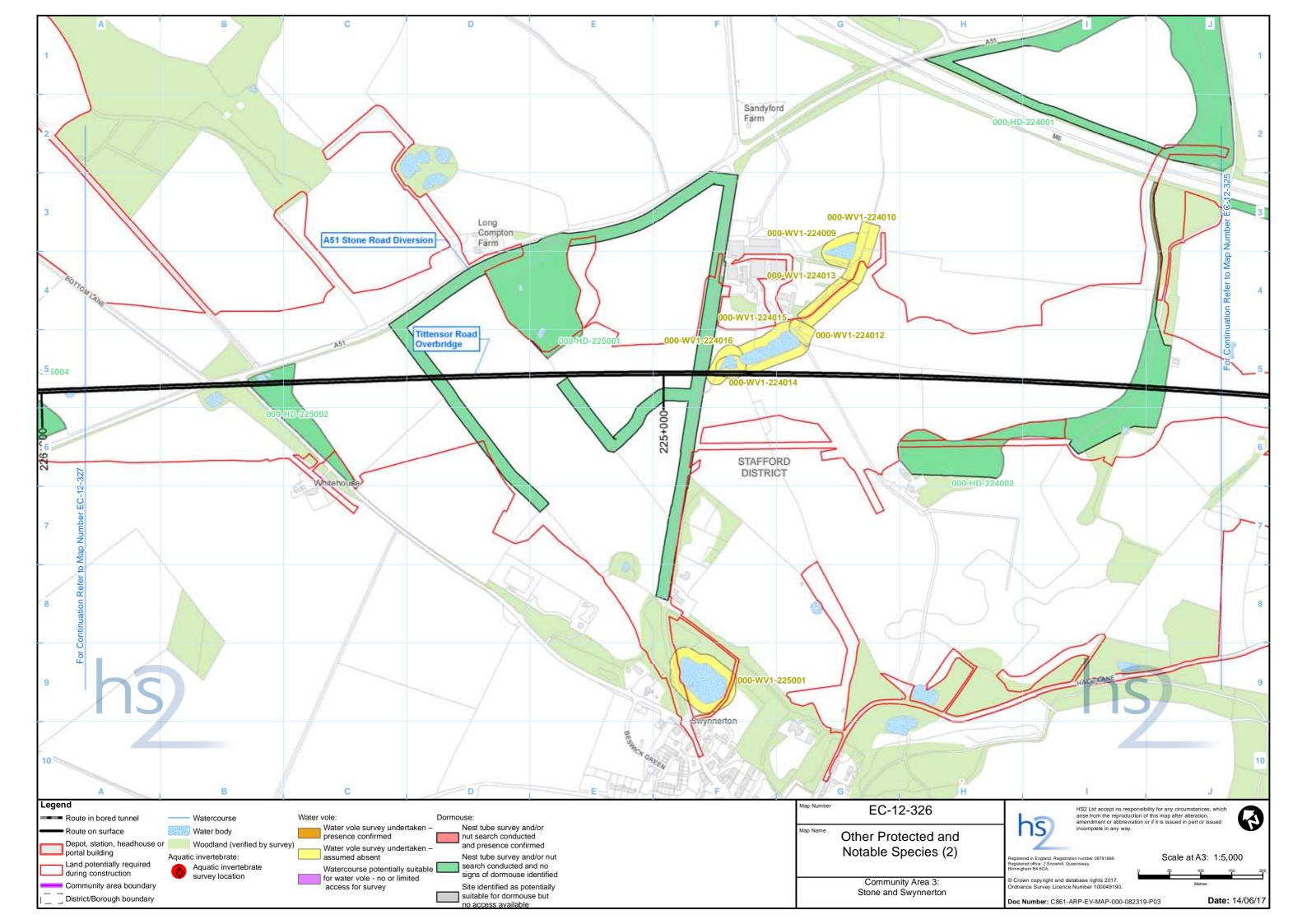


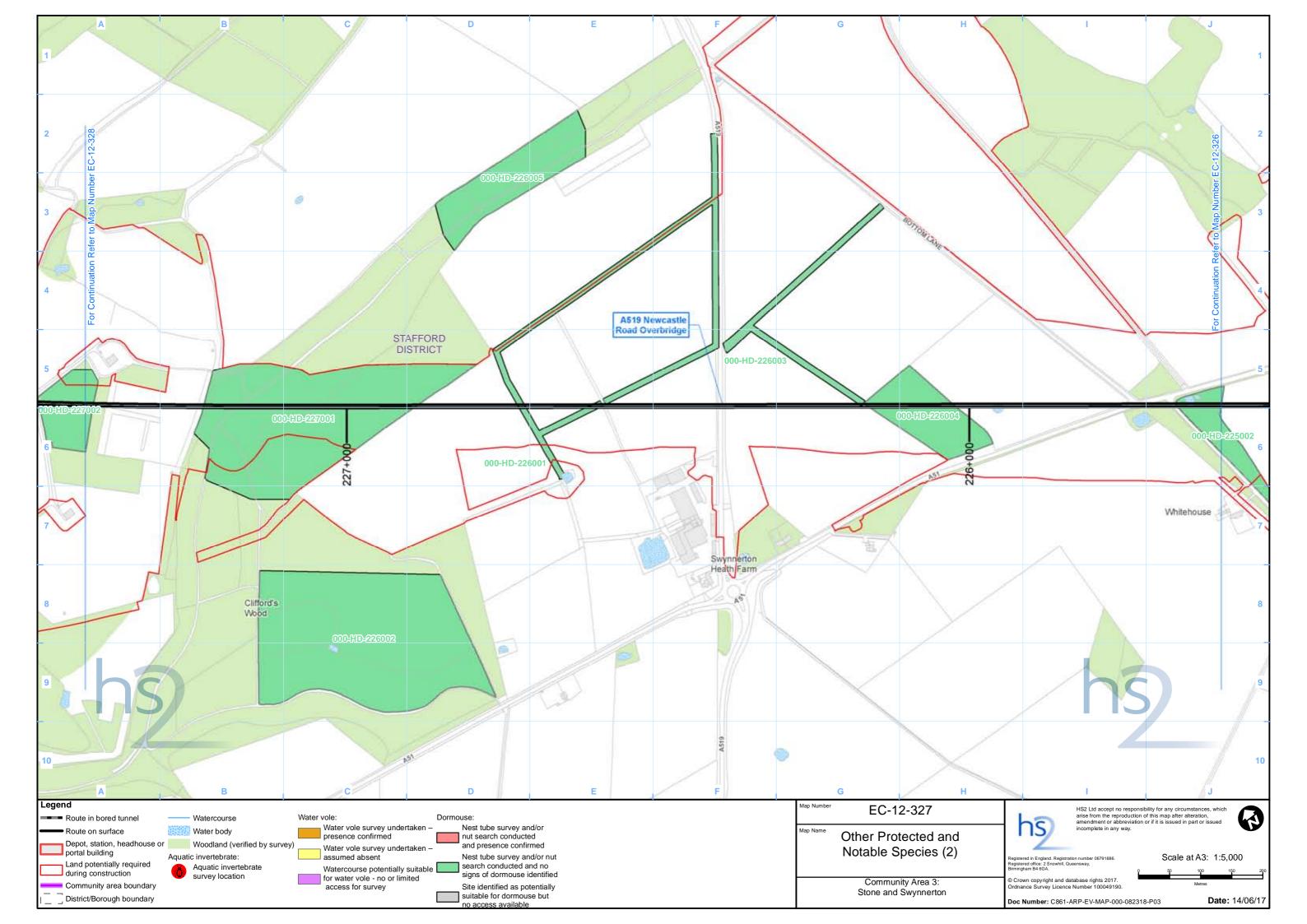


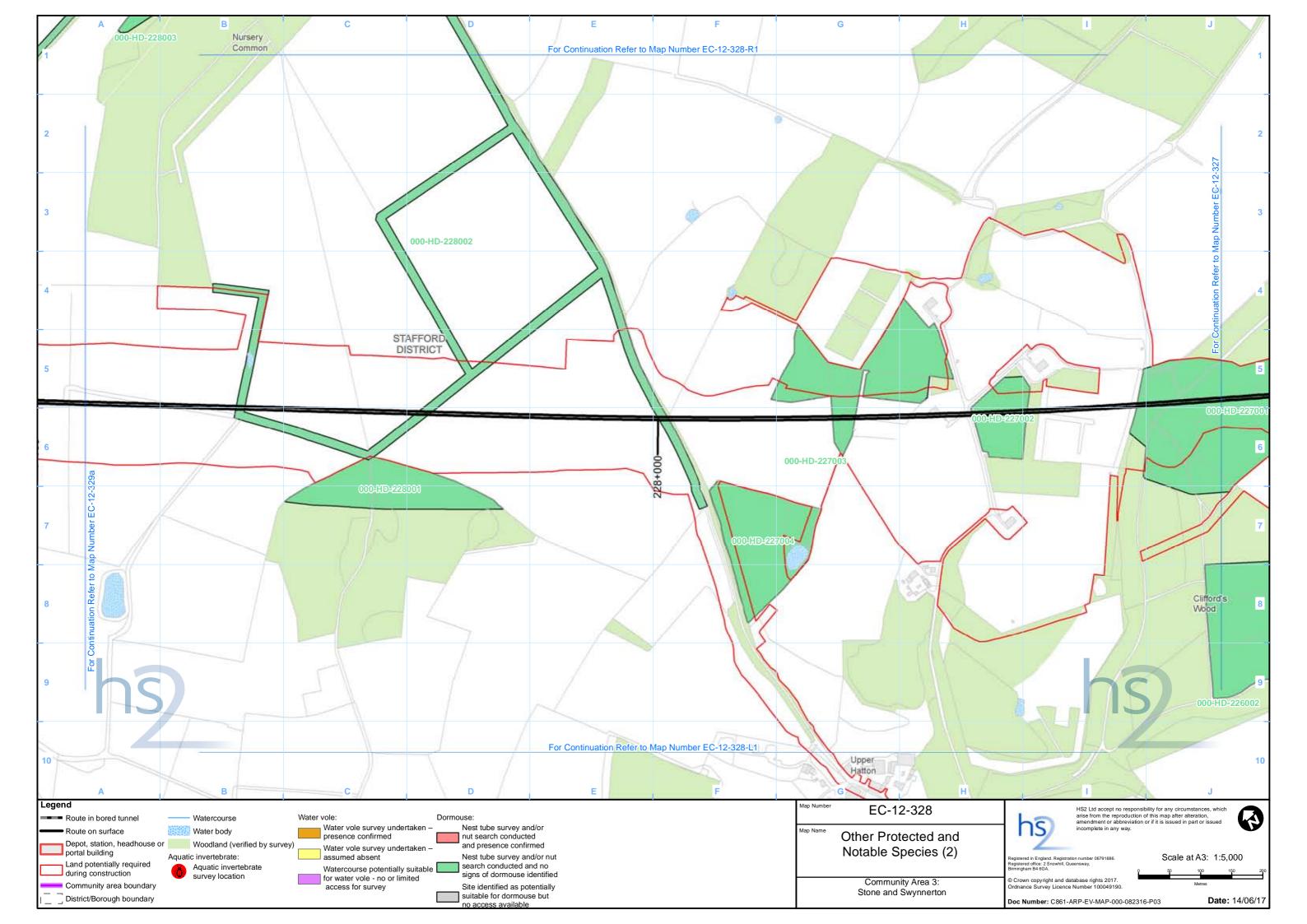


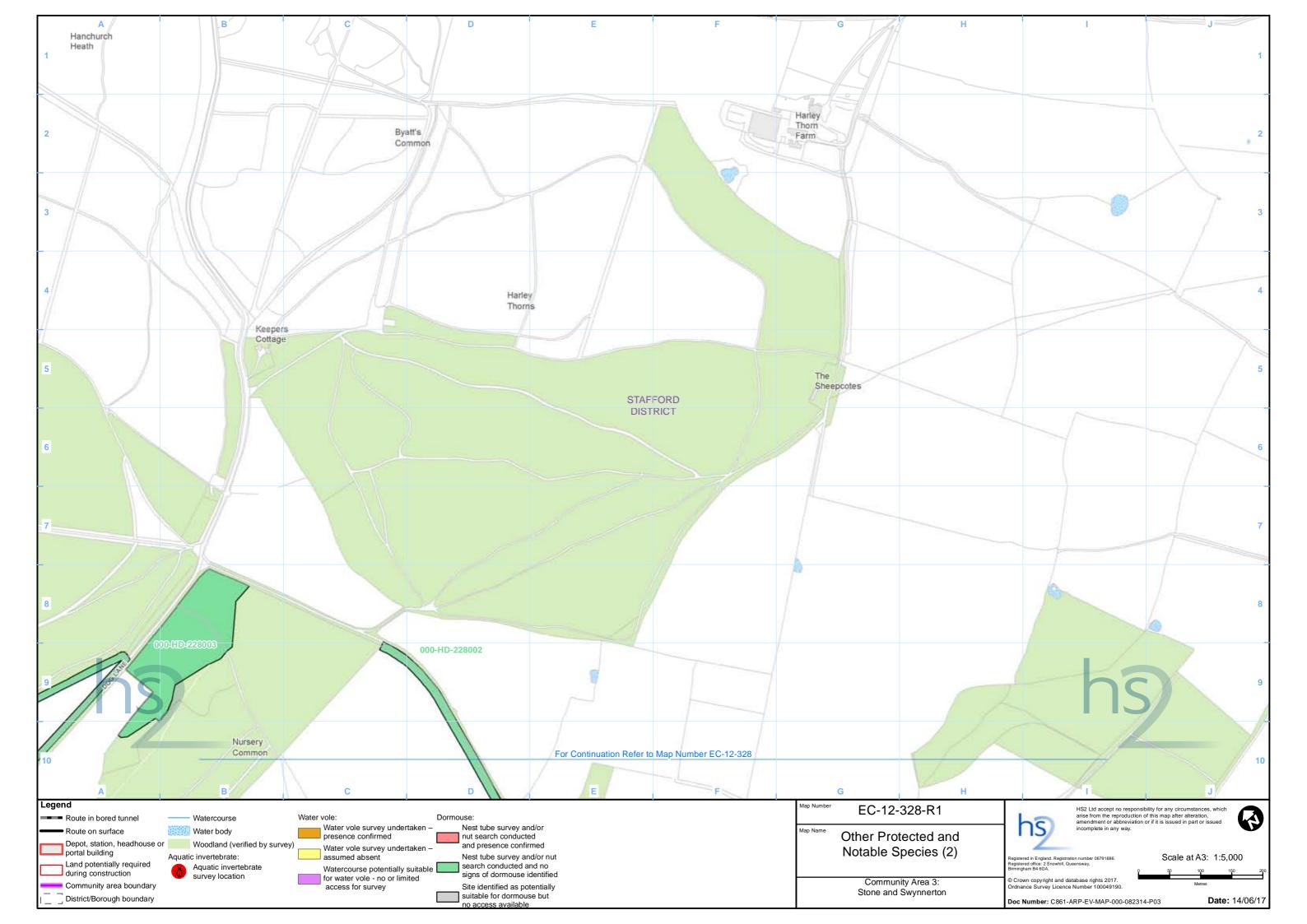


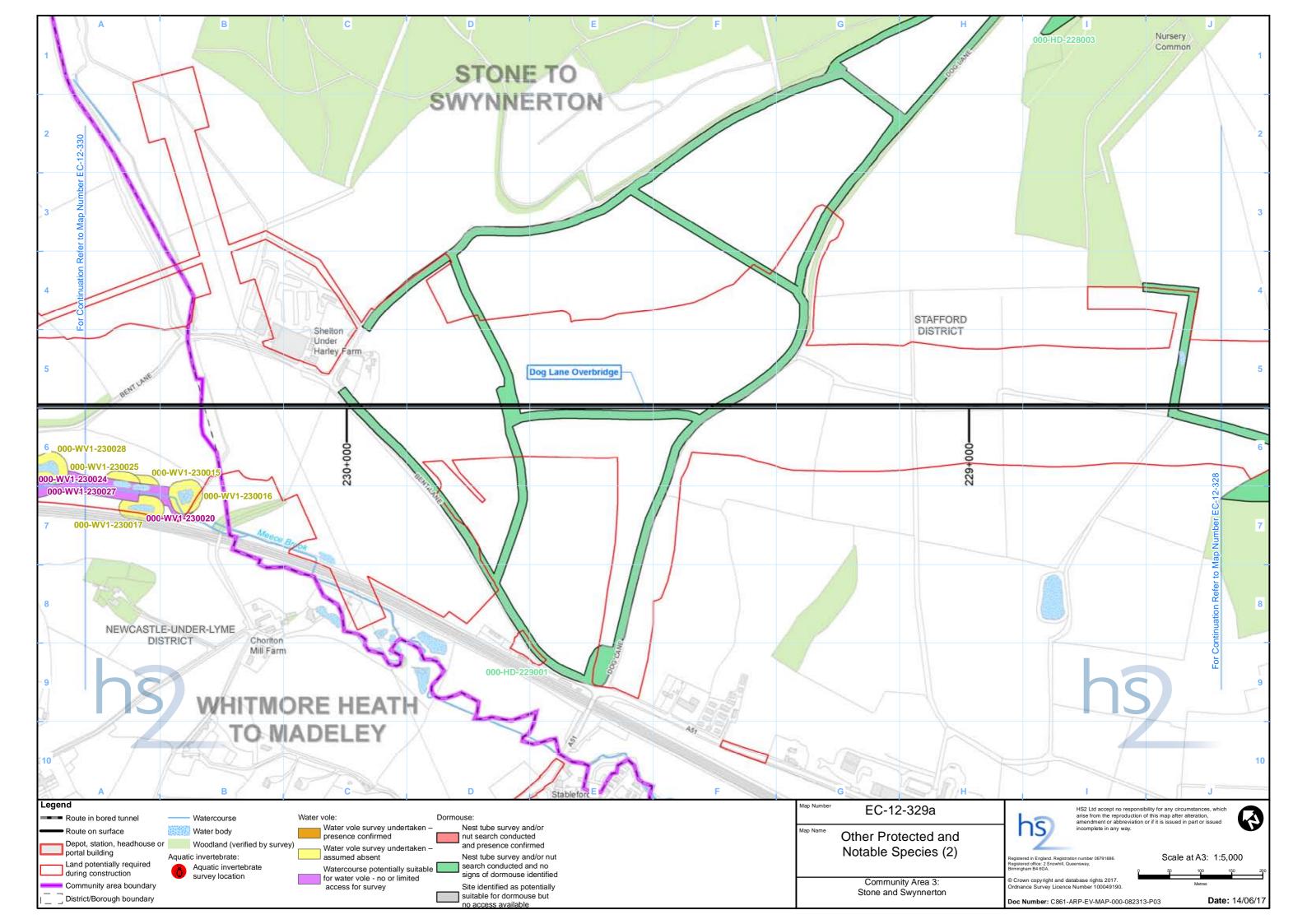


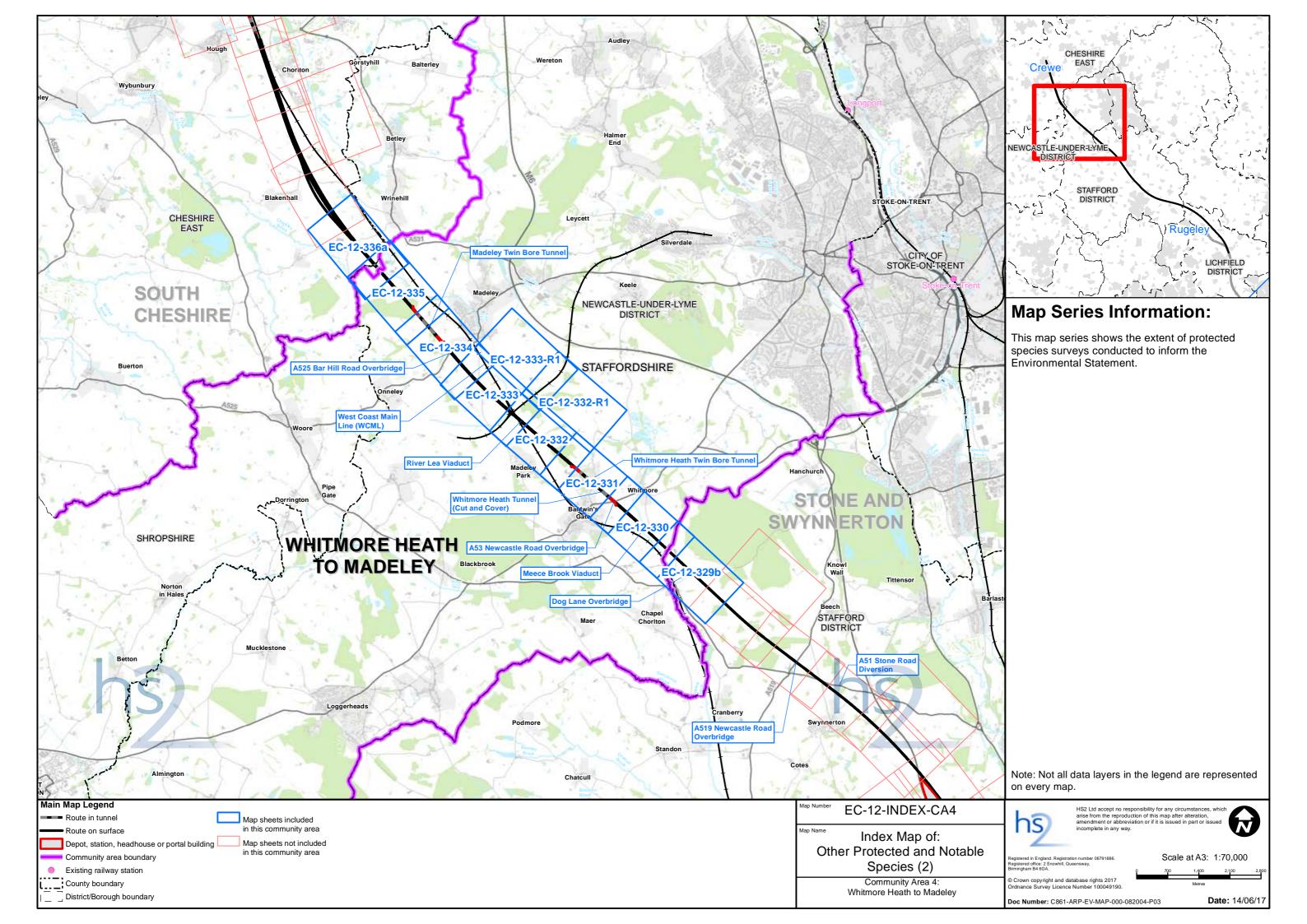


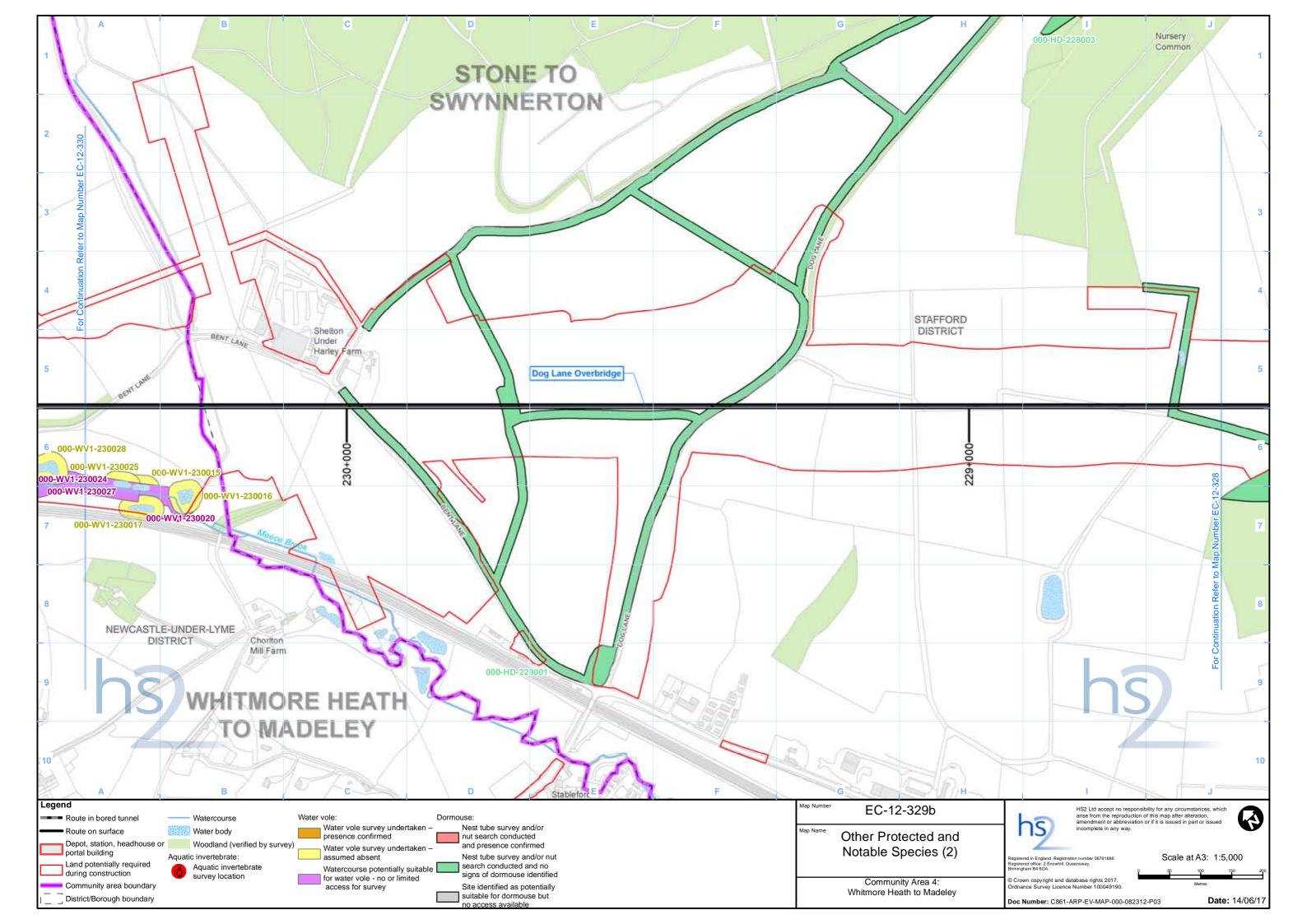


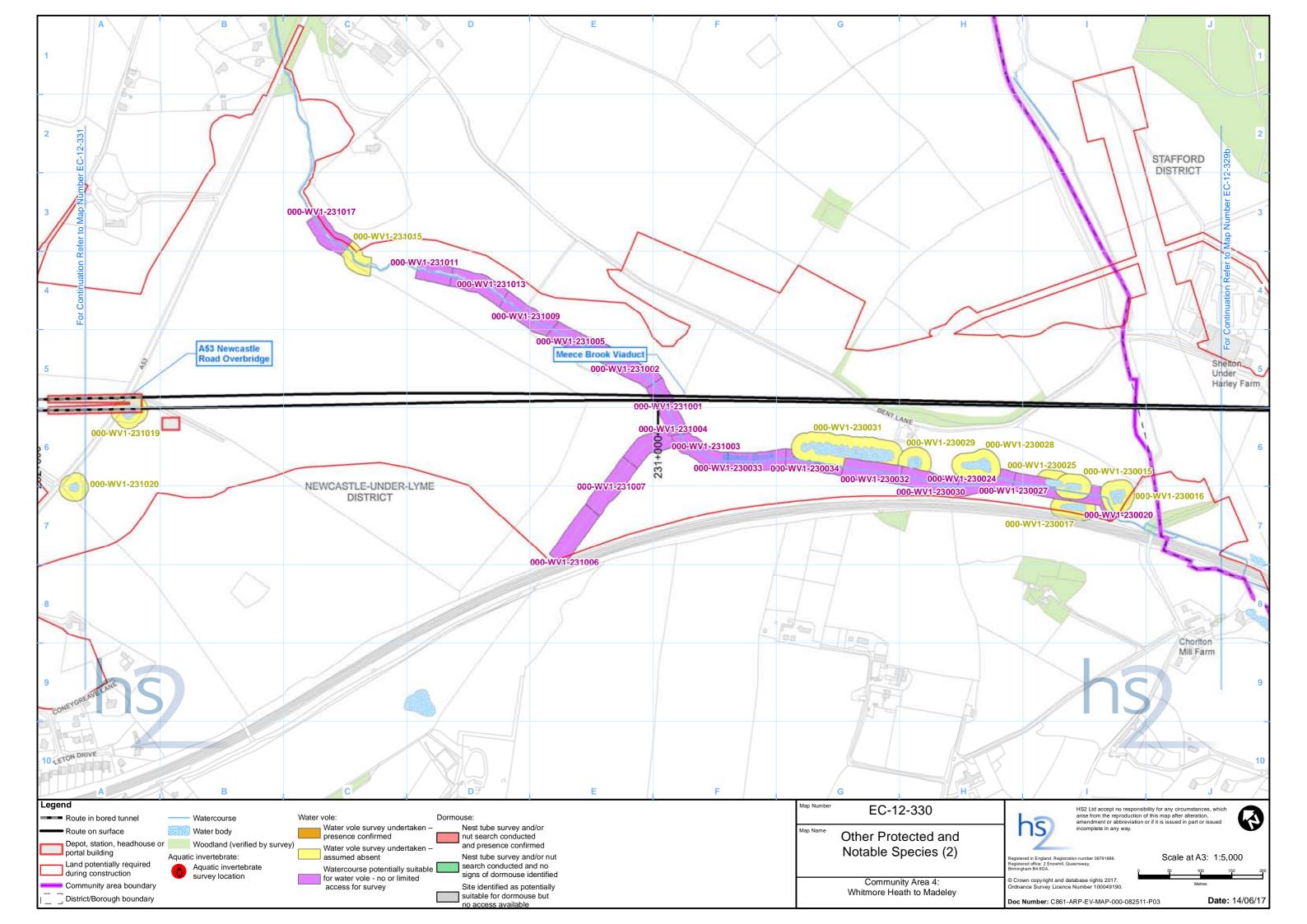


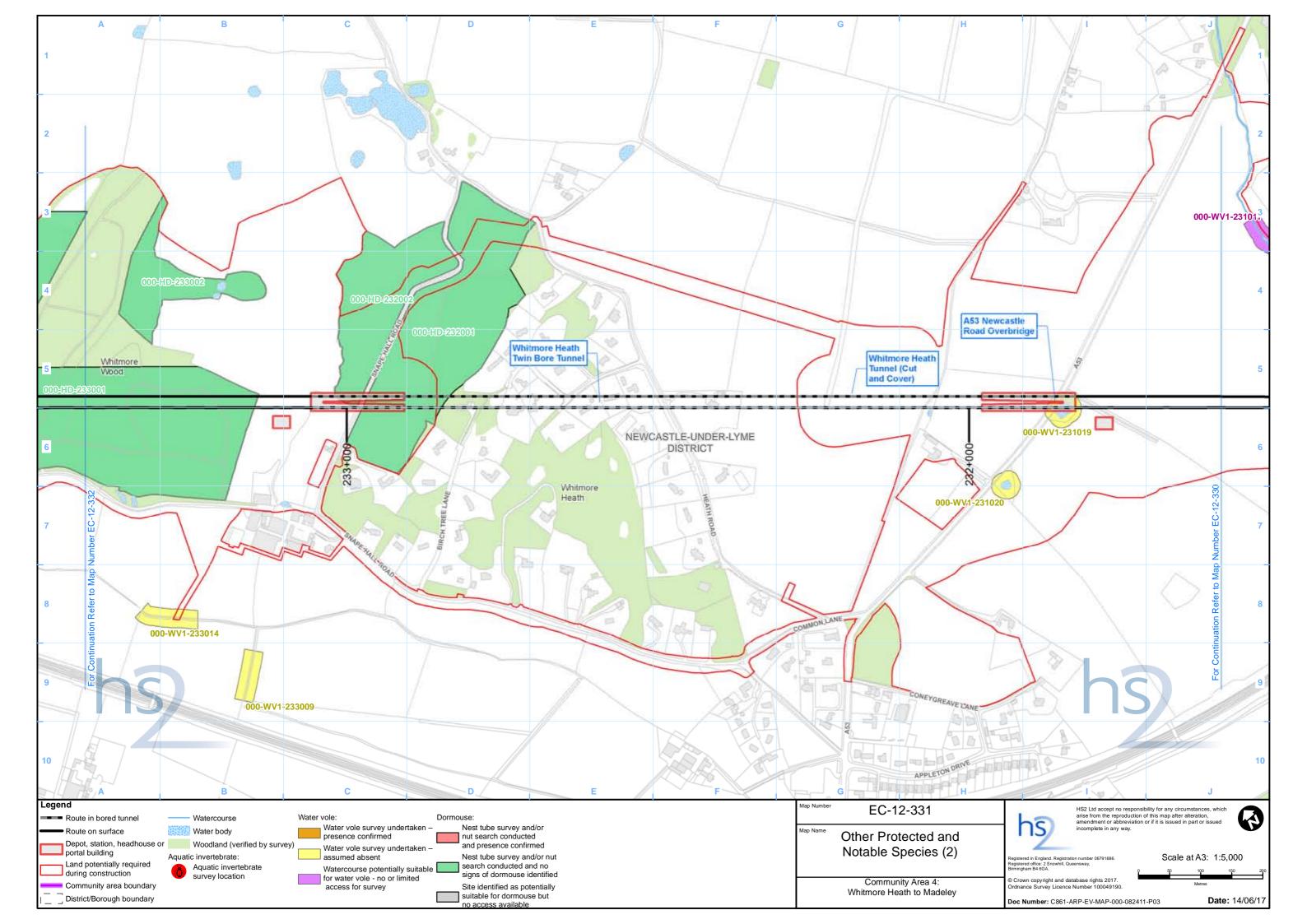


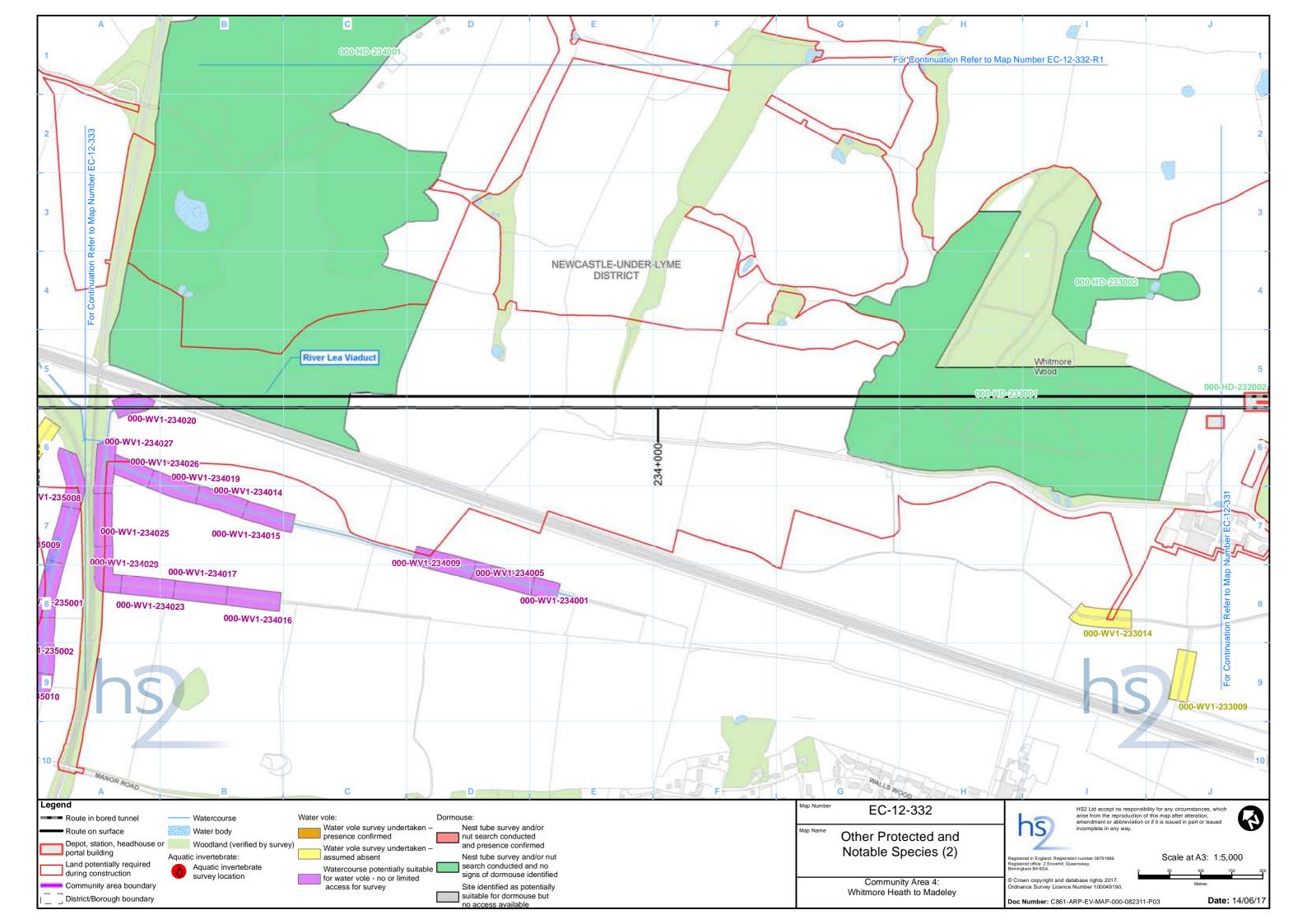


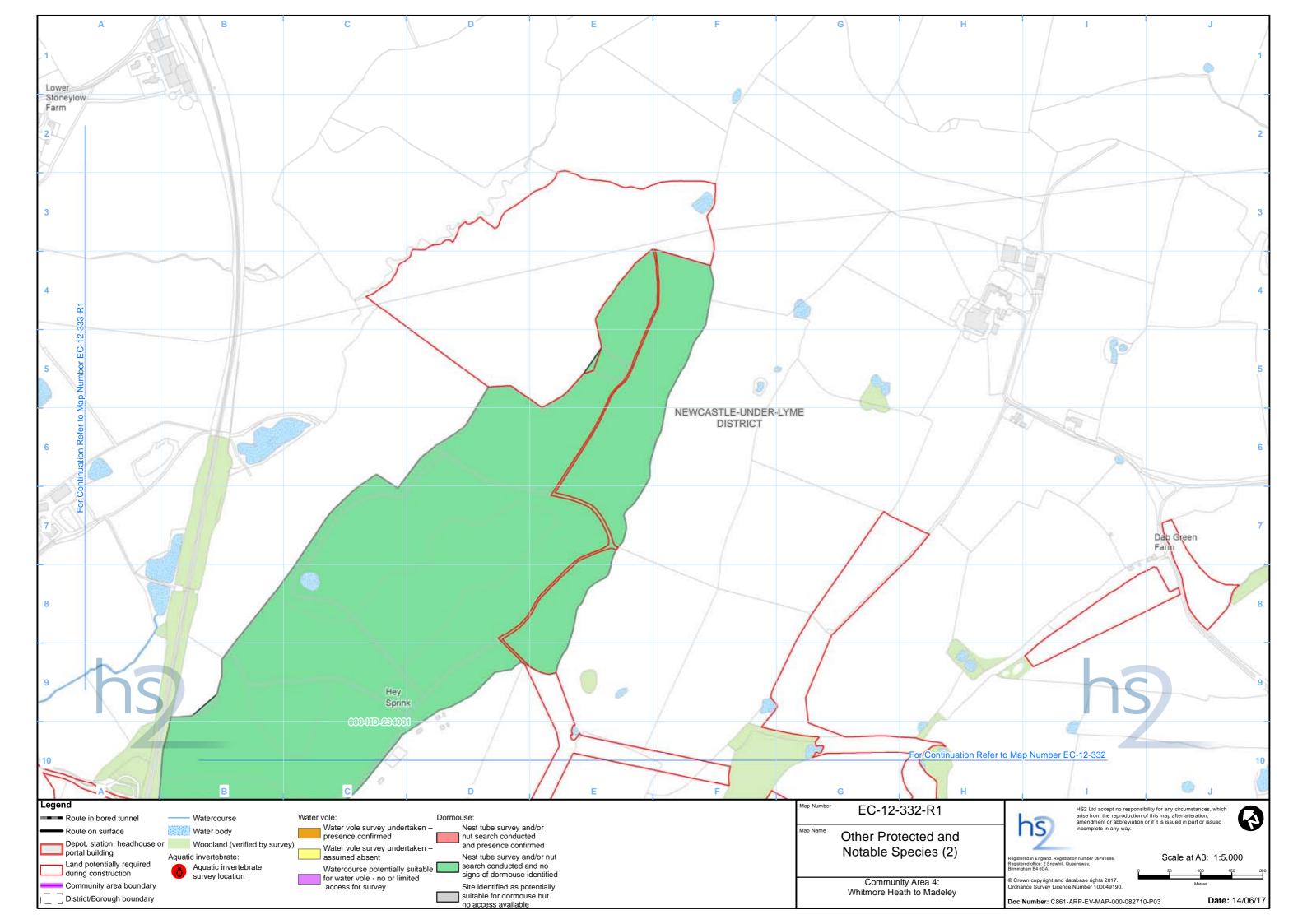


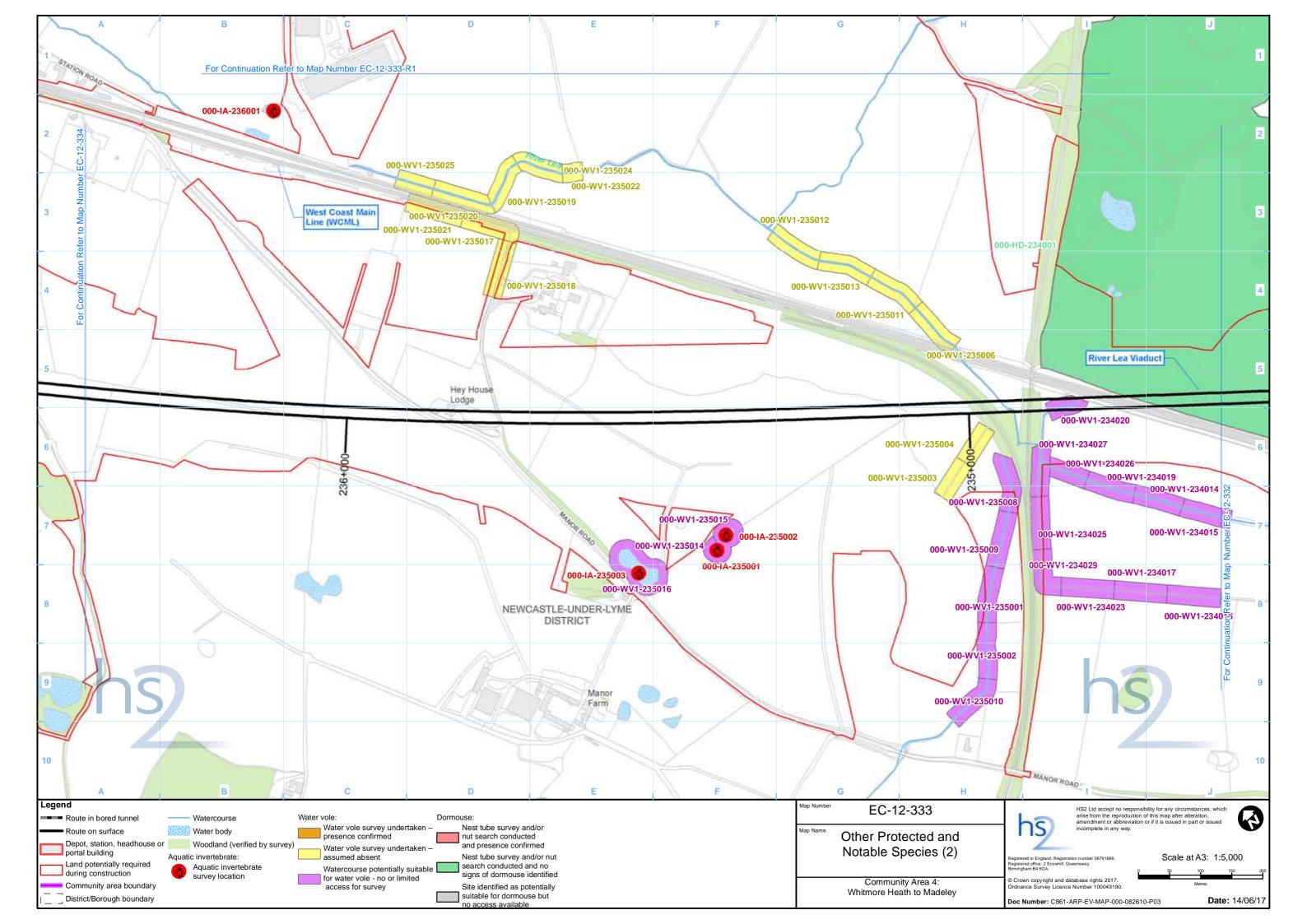


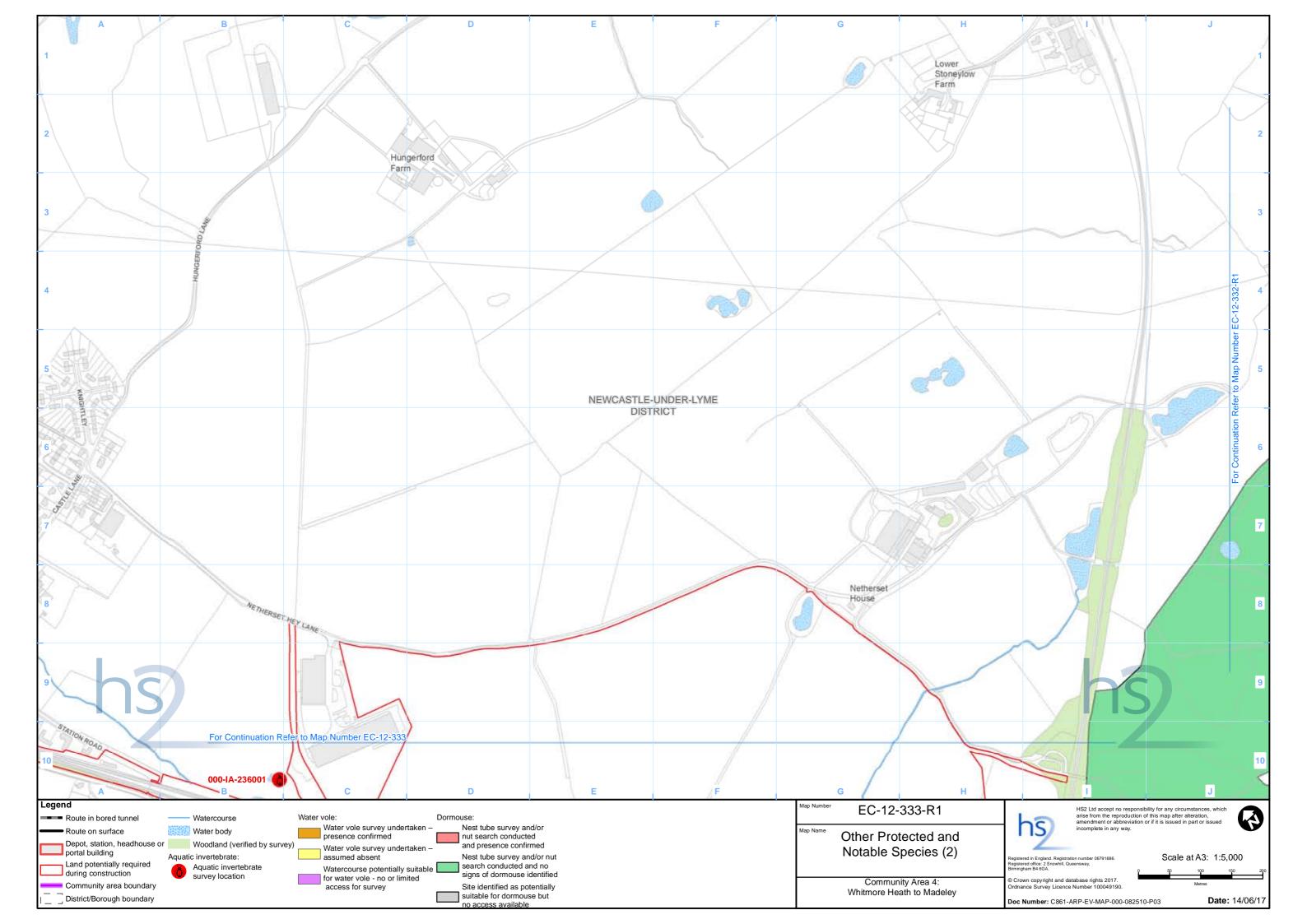


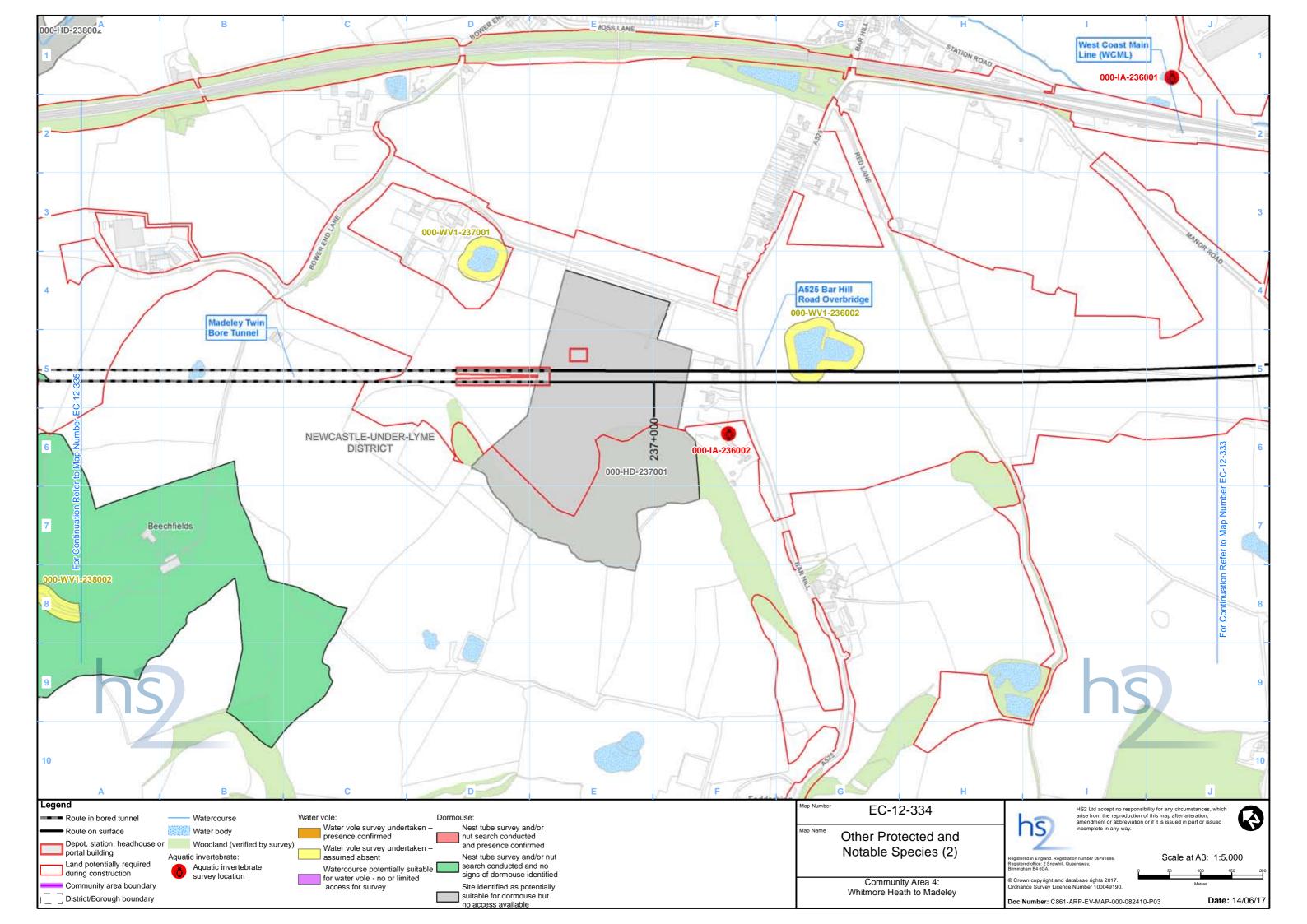


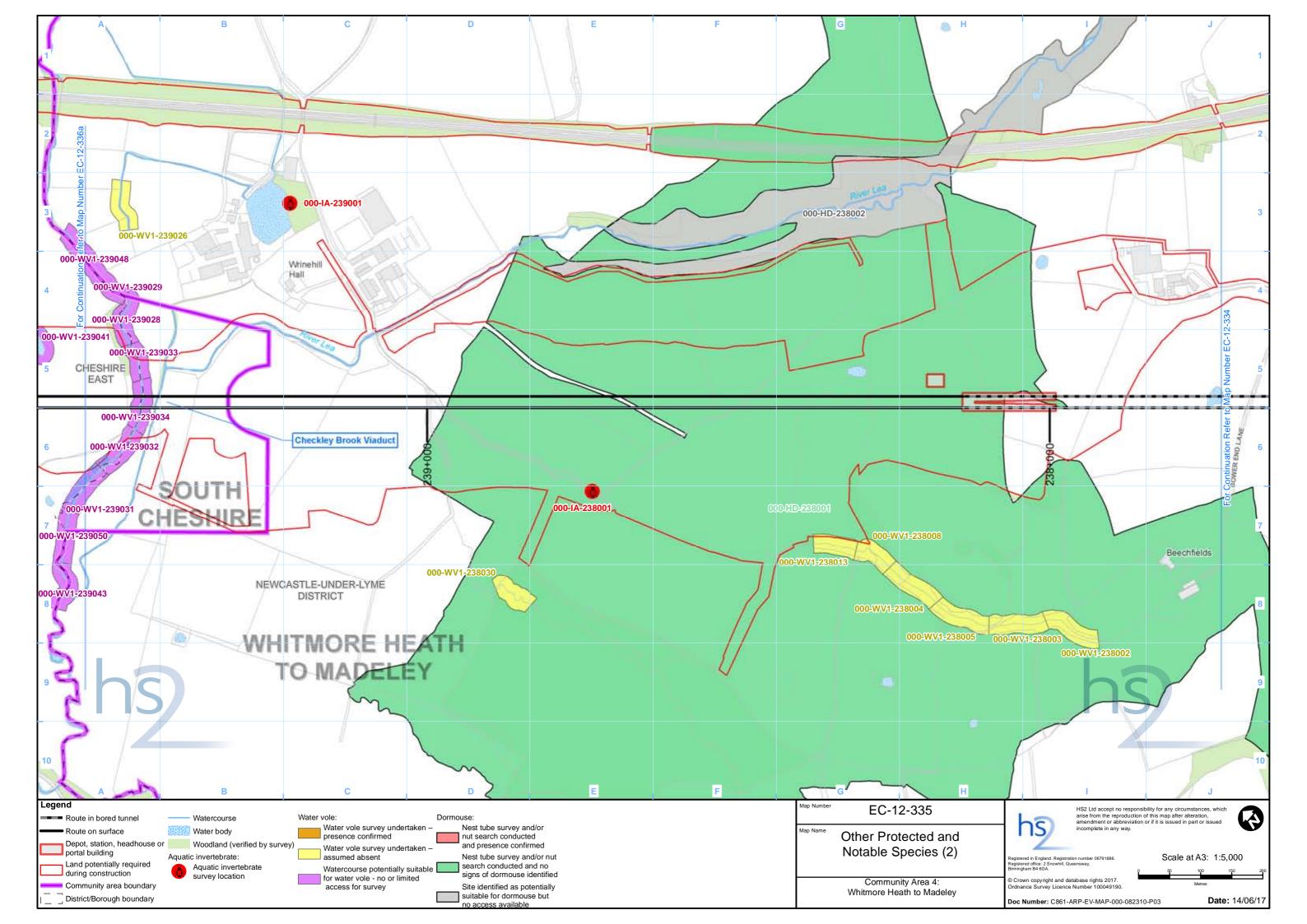


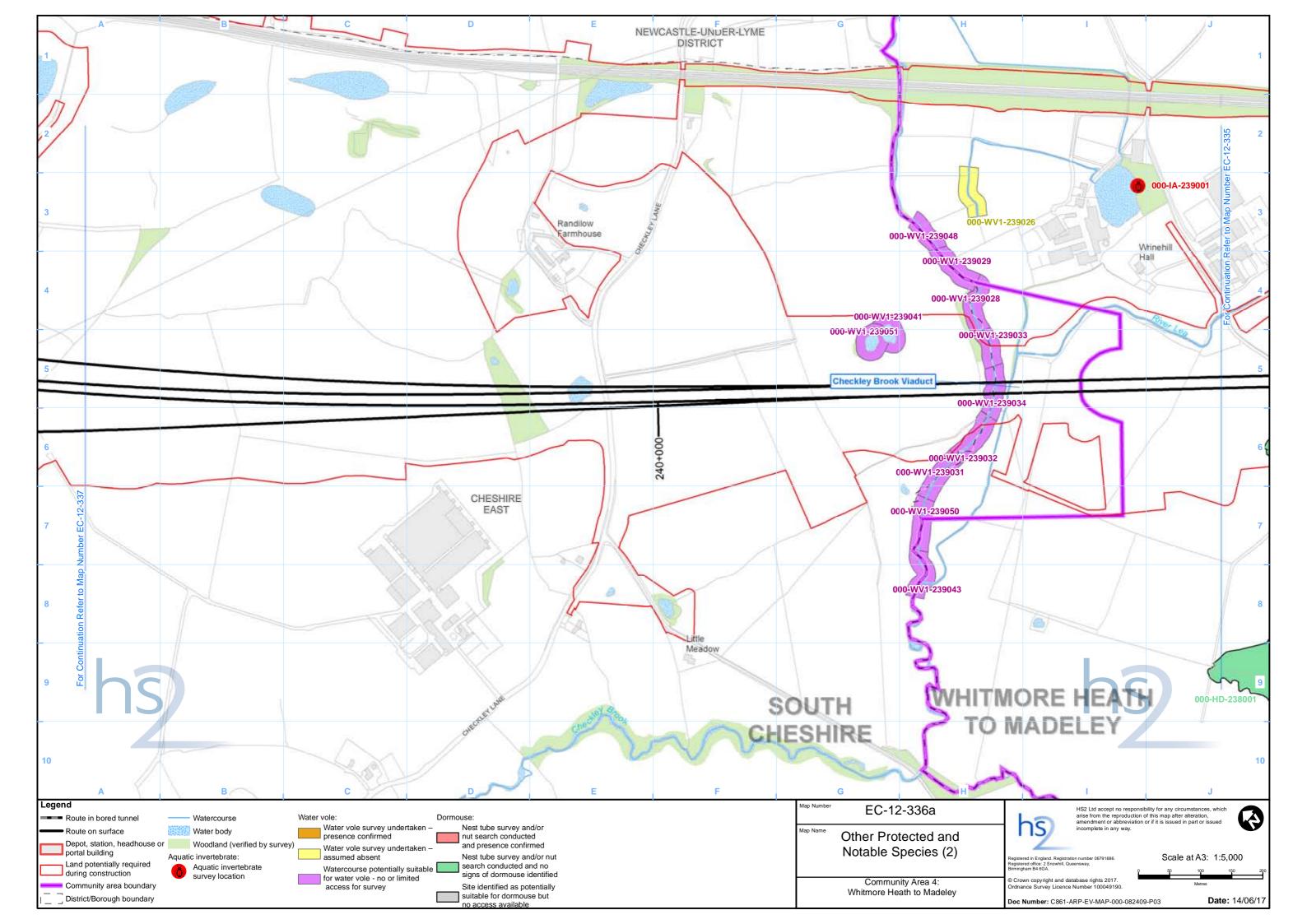




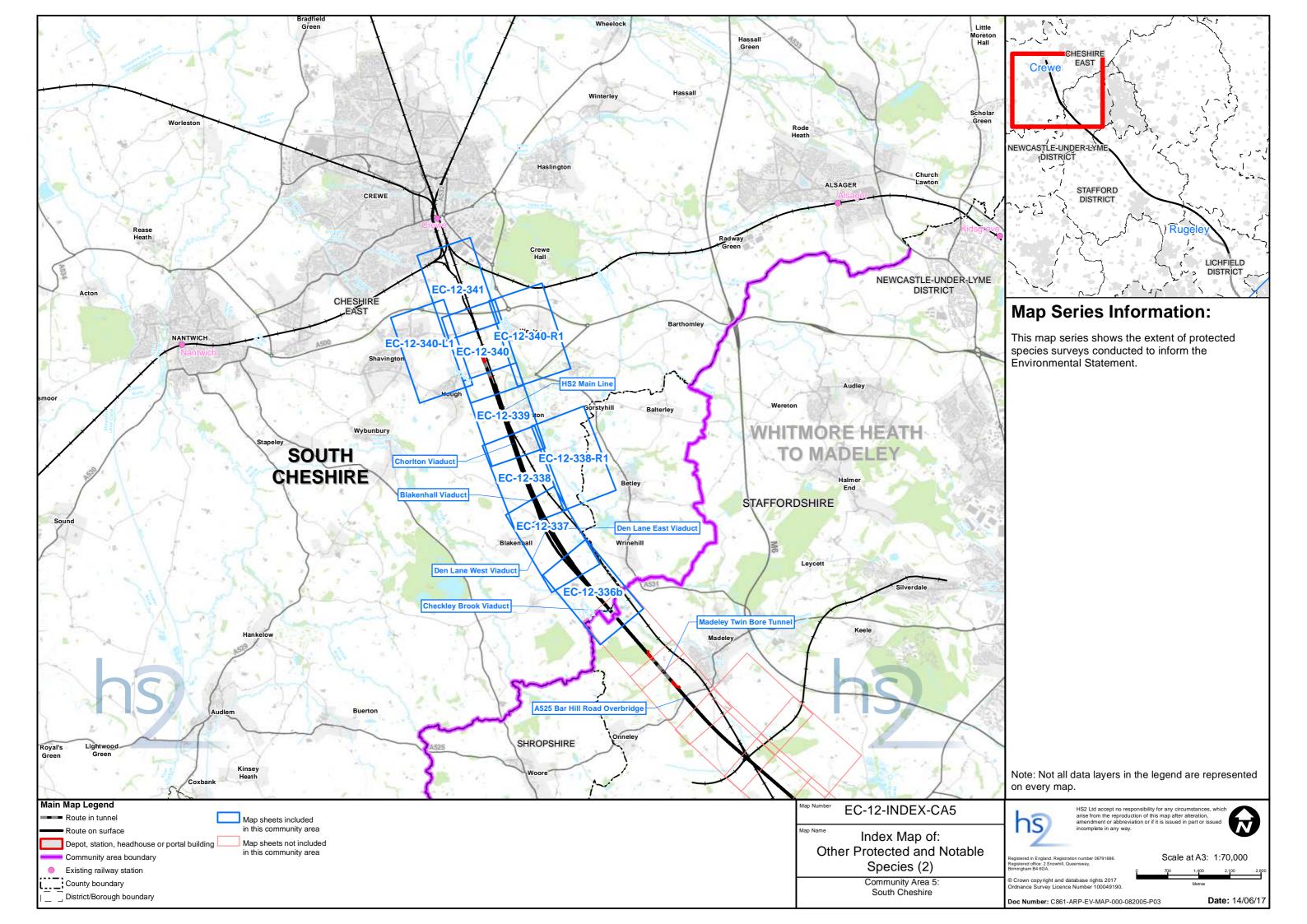


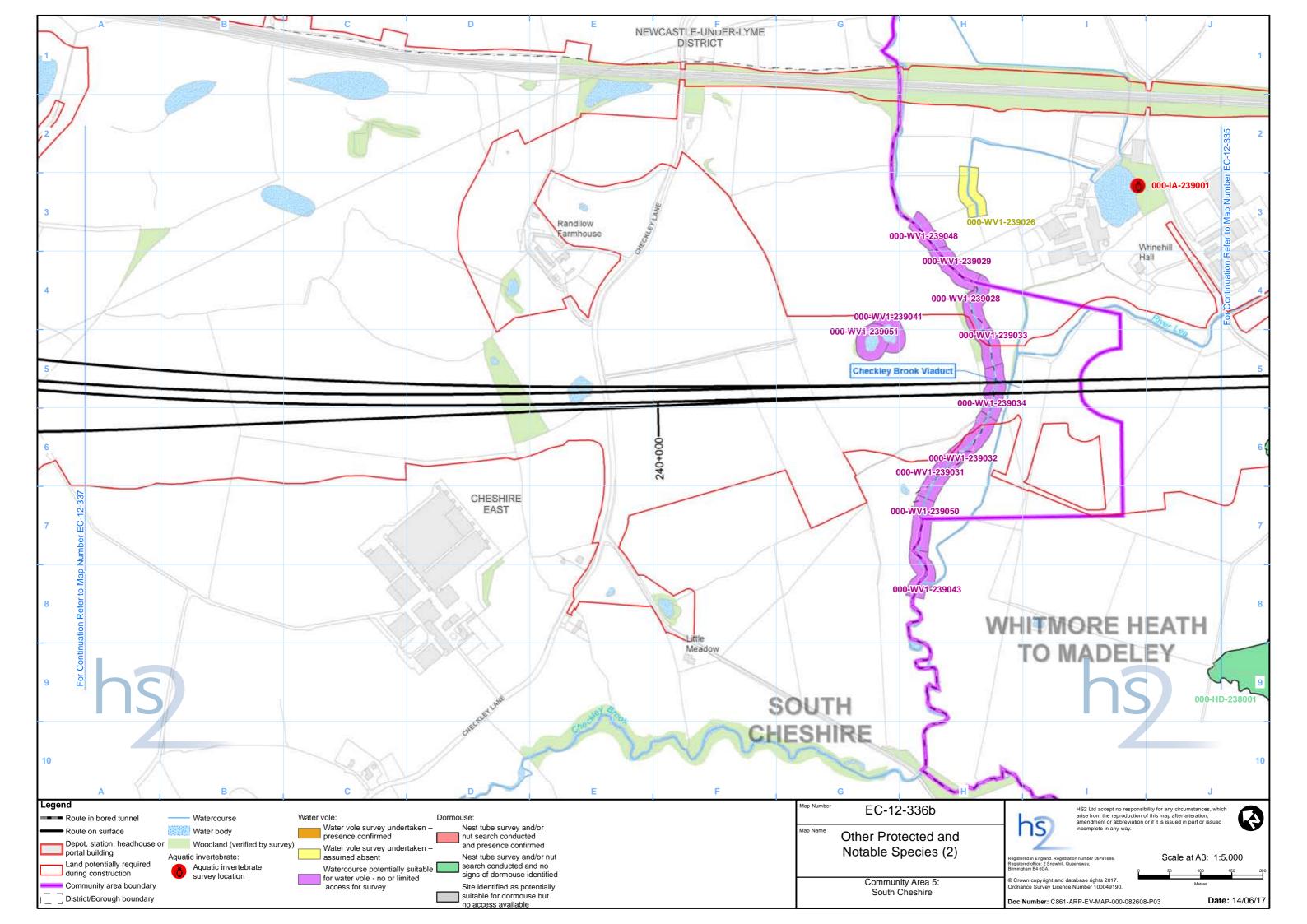


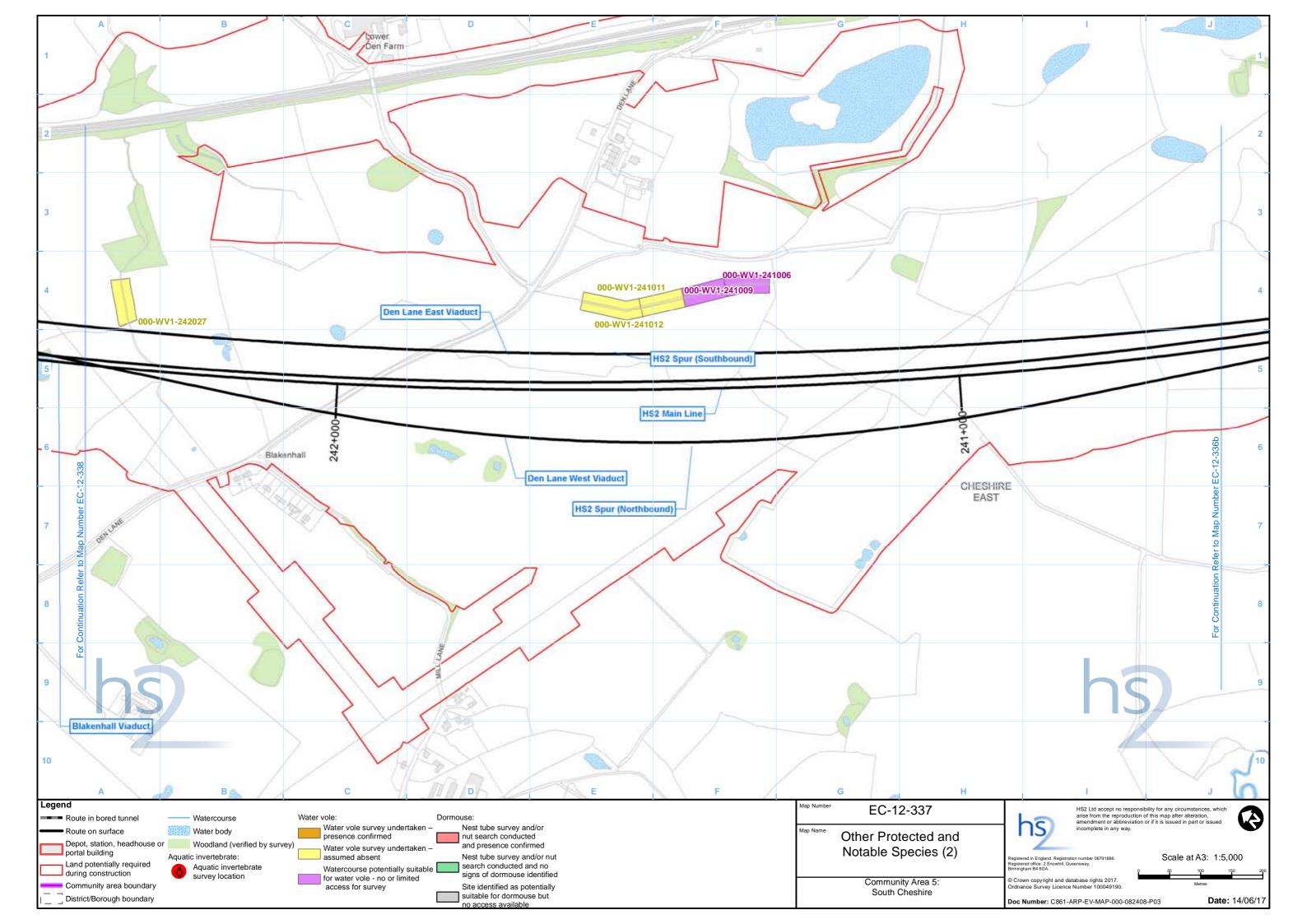


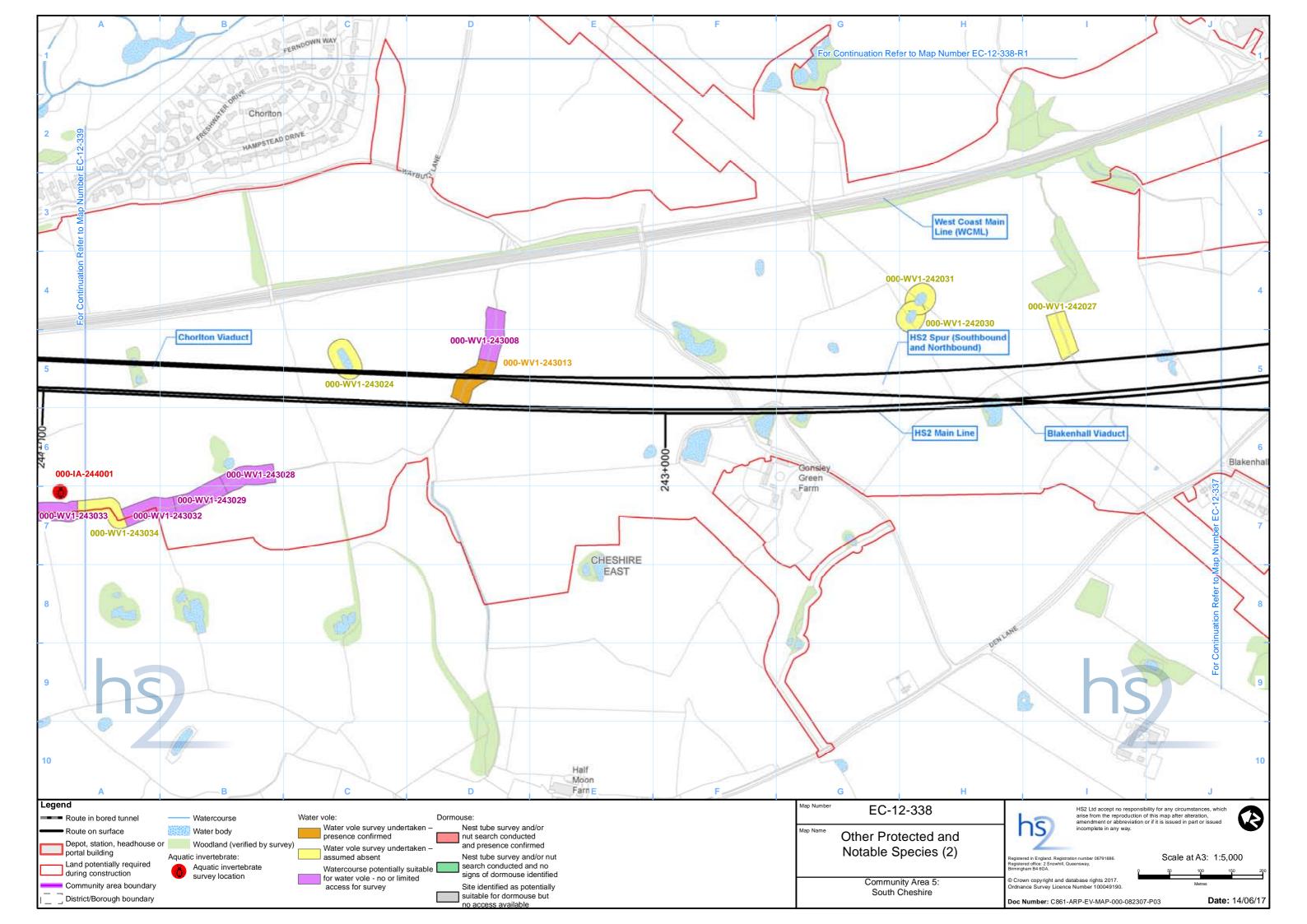


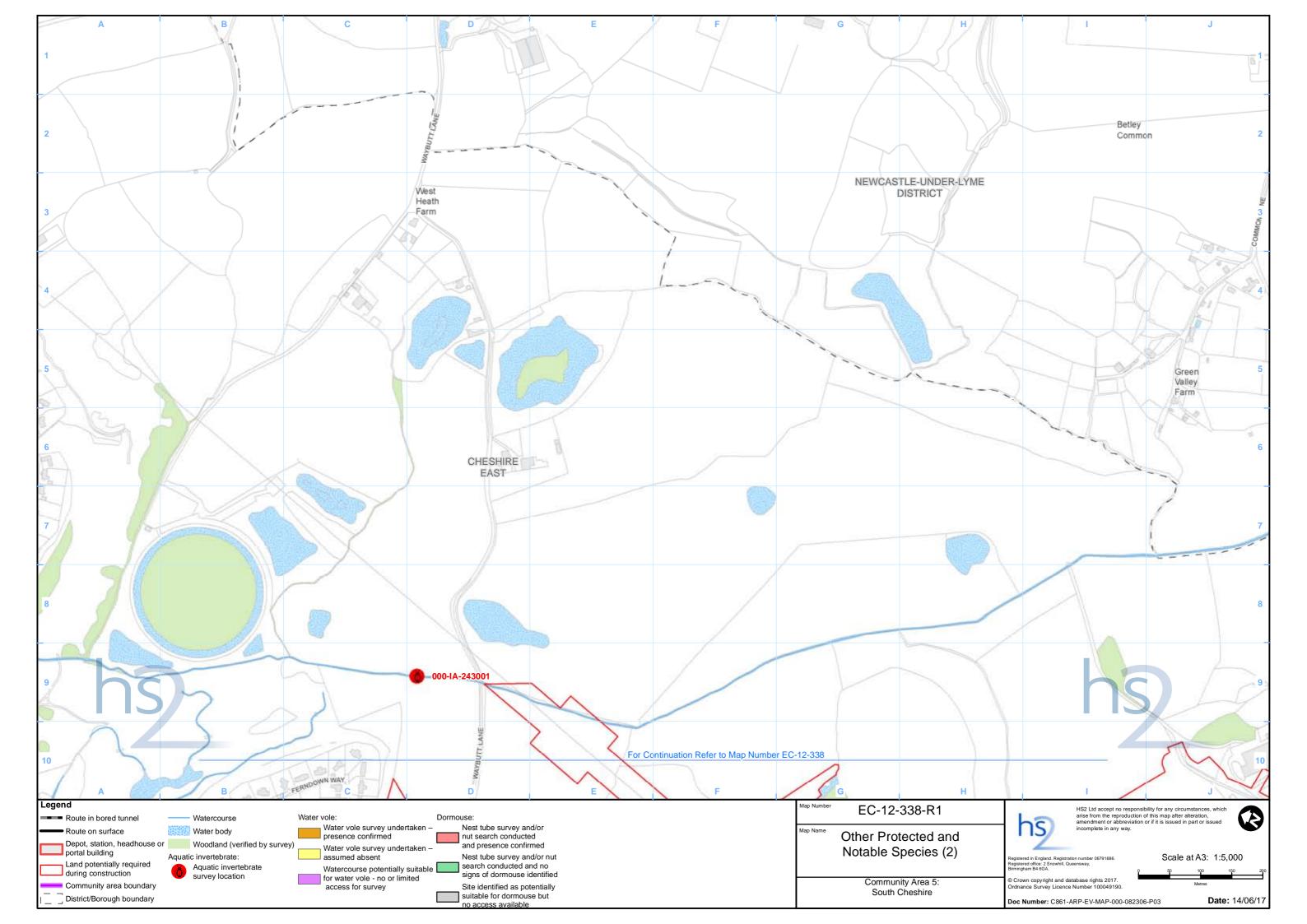
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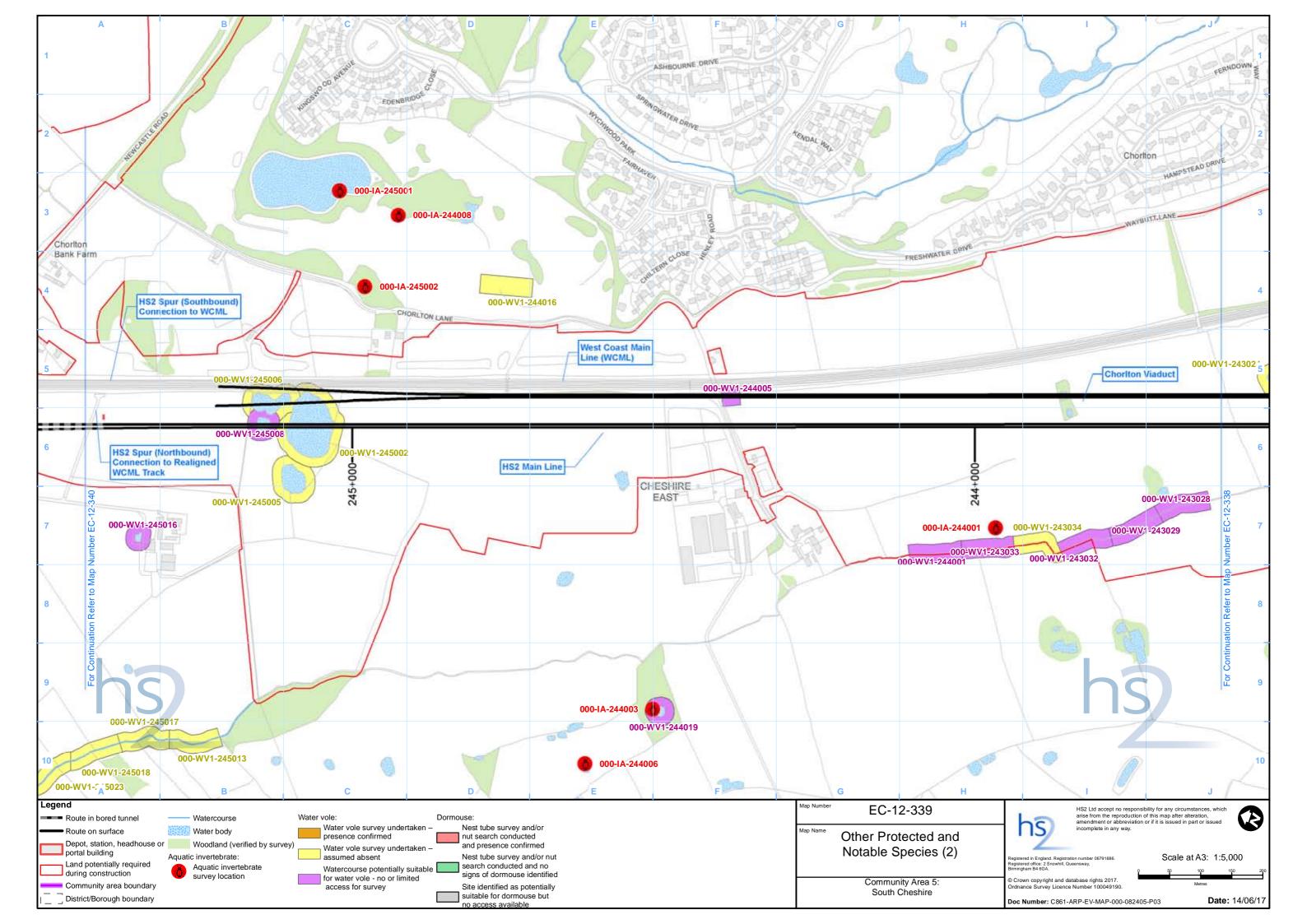


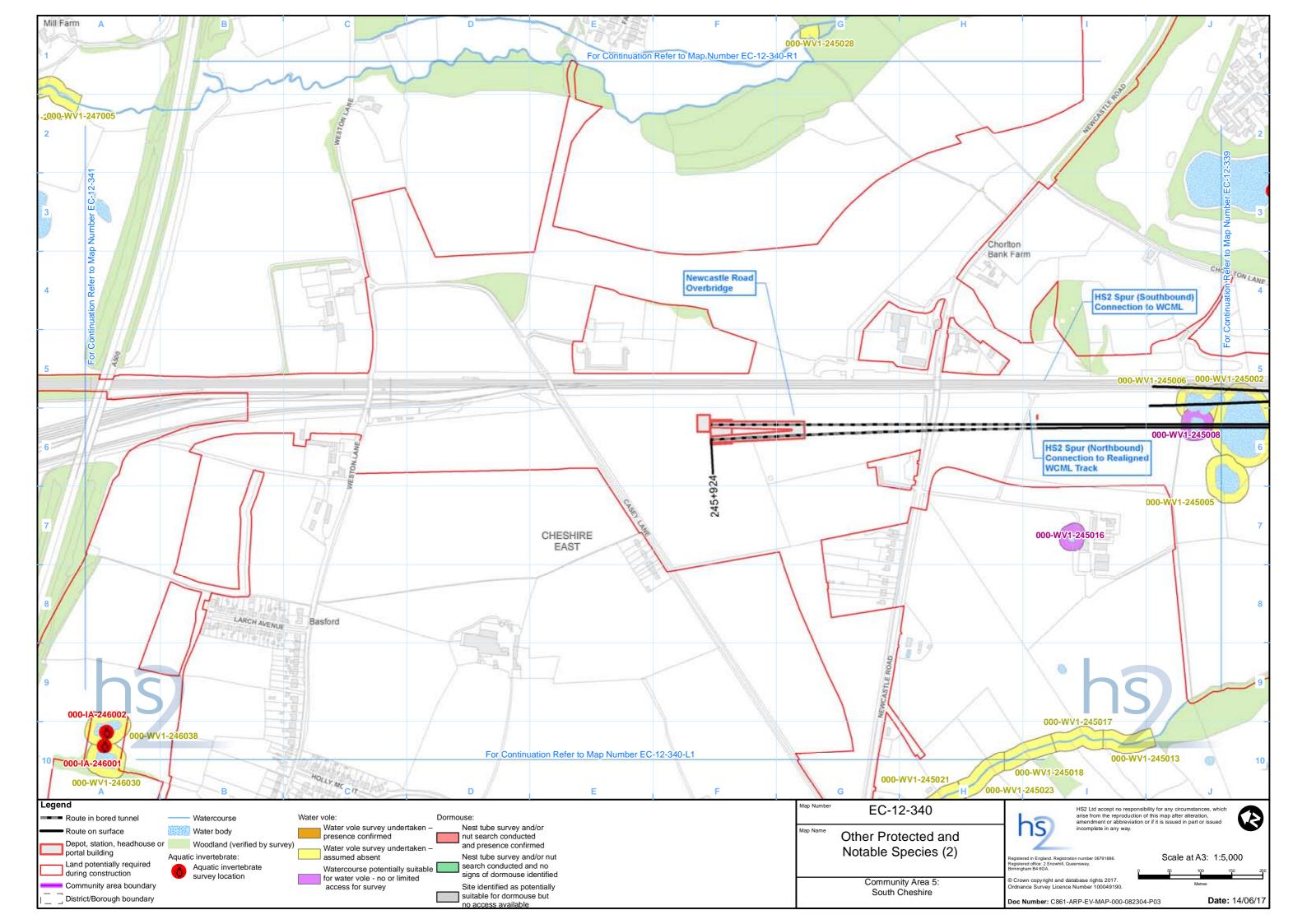


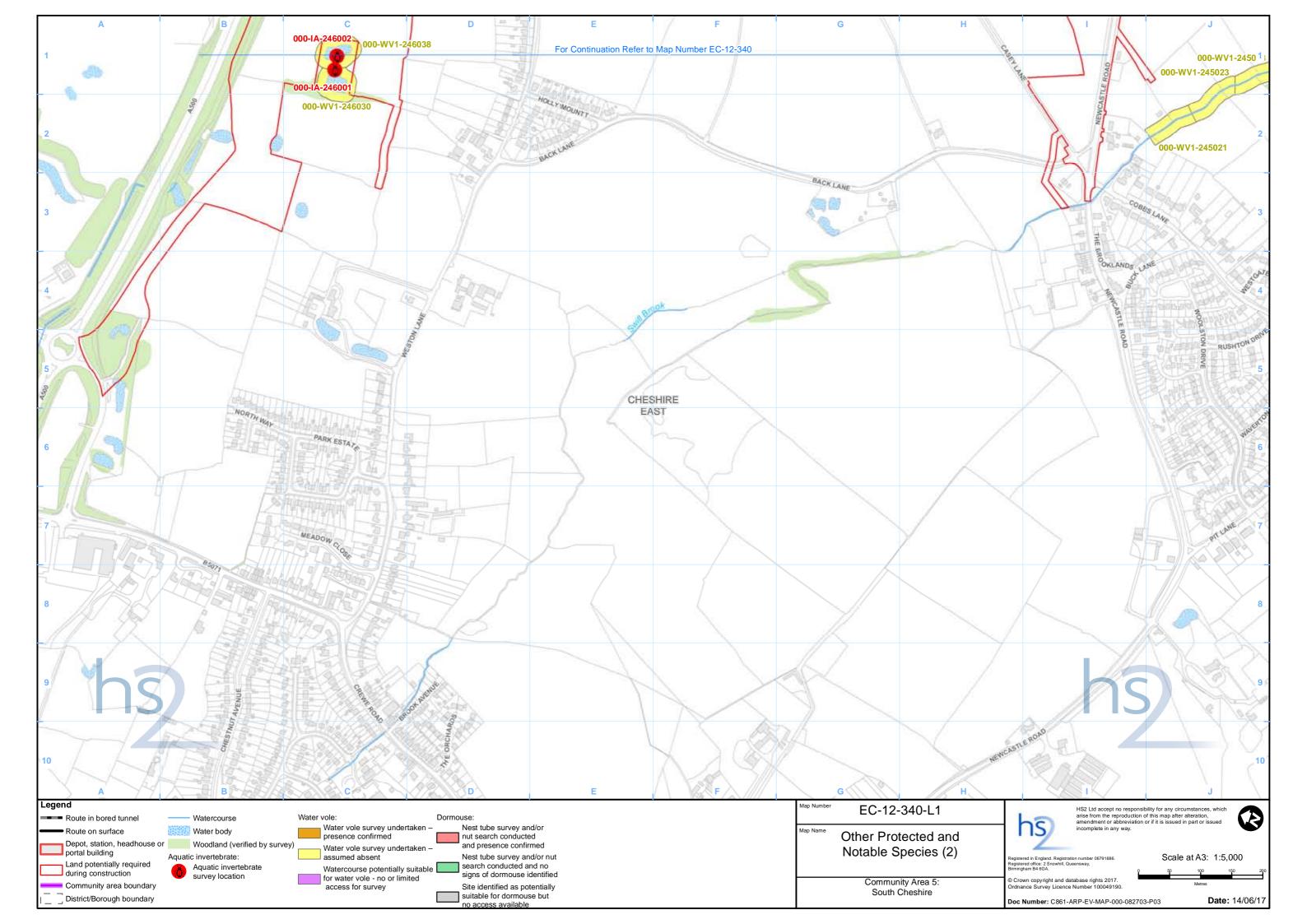


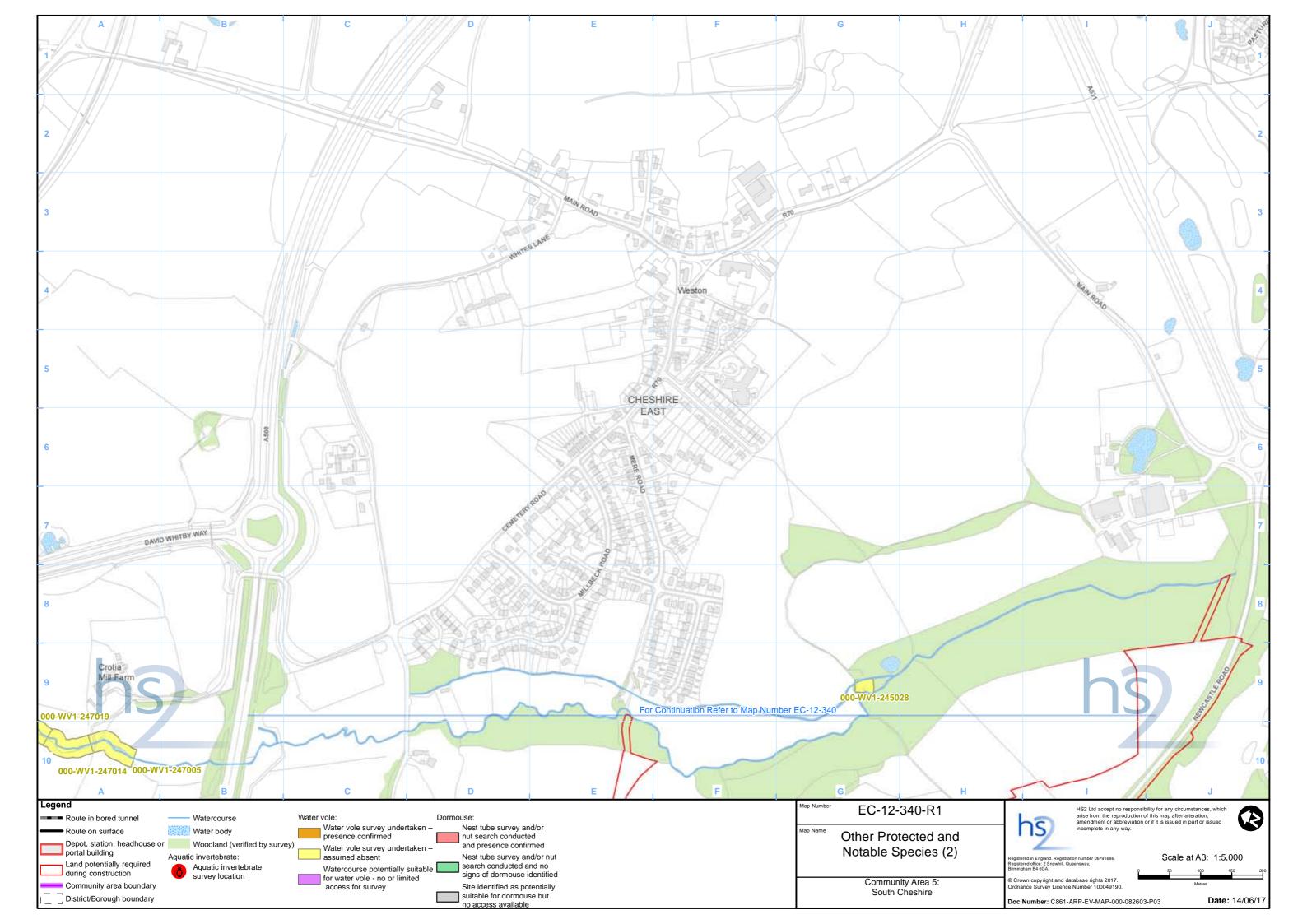


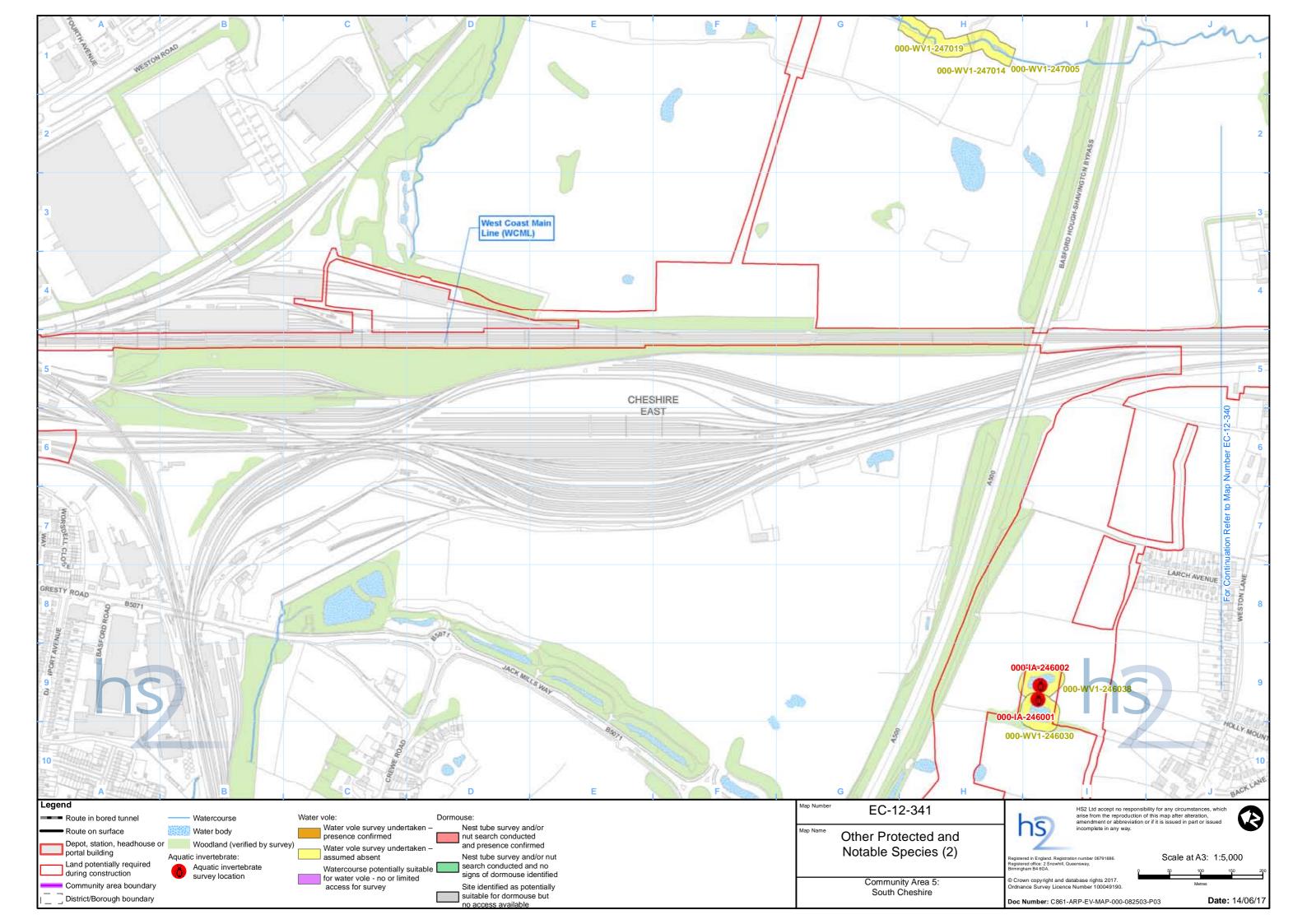












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