

# 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 2



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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**

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Data dictionary and definitions

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-08 - 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-o9 - 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, 1:5,000 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

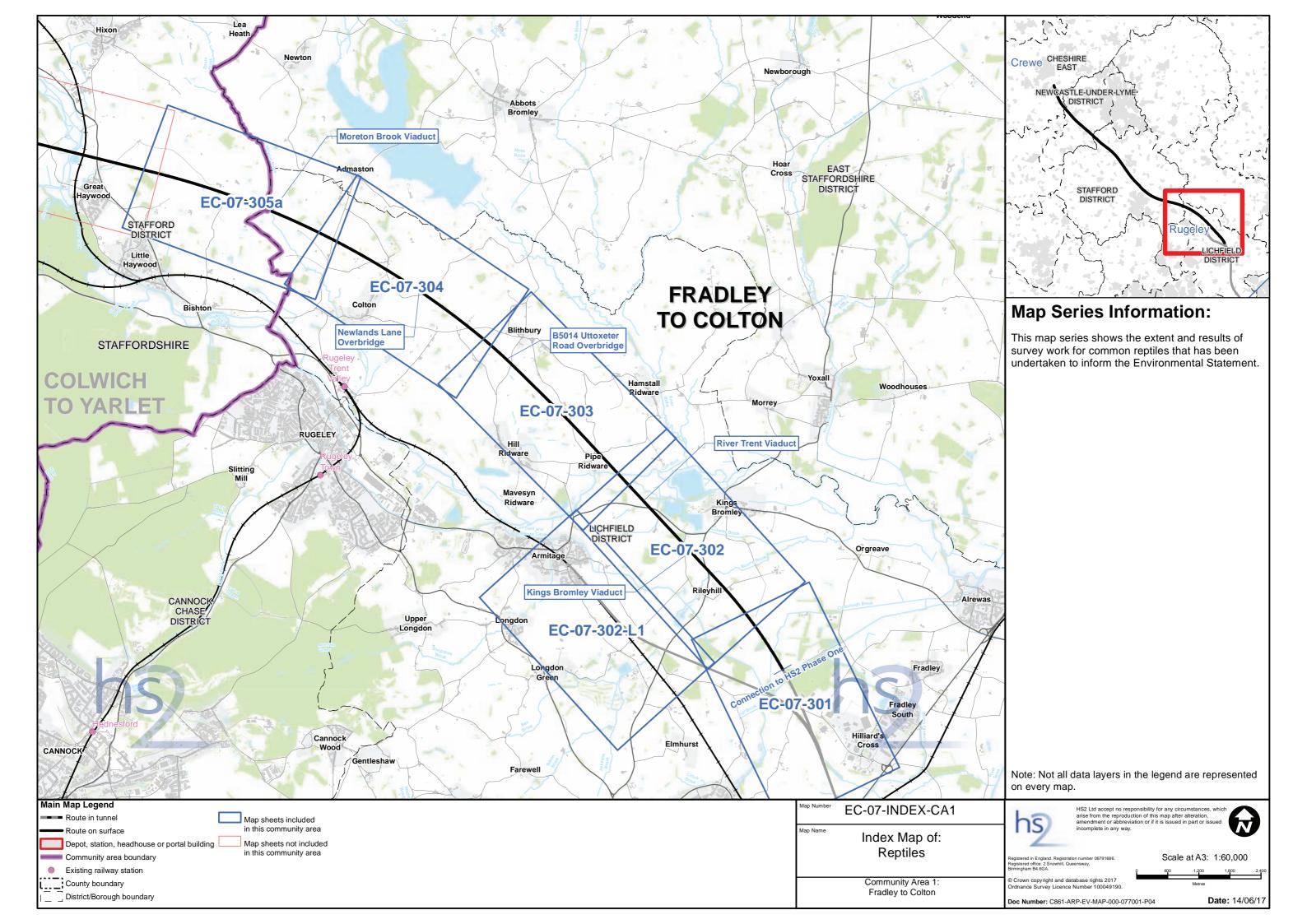
## Data dictionary and definitions

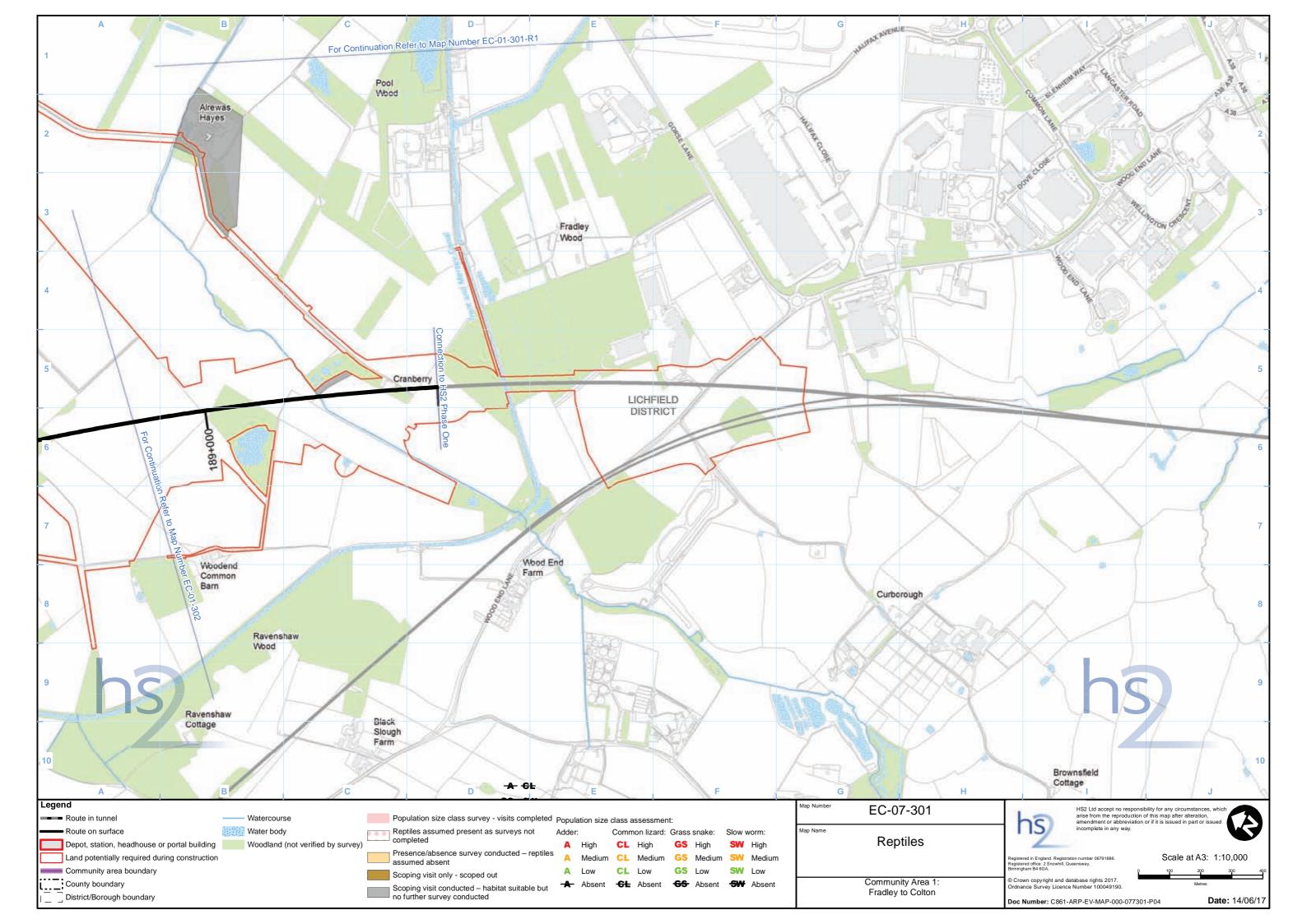
Legend features	Definition	Source	Copyright
Breeding birds - protection status:  Species listed on Annex I of the Birds Directive  Species listed on Schedule 1 of the Wildlife and  Countryside Act  Species listed on Annex I of the Birds Directive and  Schedule 1 of the Wildlife and Countryside Act  Species listed on Birds of Conservation Concern list  relevant to assessment – See Volume 5 Appendices  Other notable species relevant to assessment – see  Volume 5 Appendices	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	
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.
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	
Reptiles - Population	Areas where a reptile 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	
Reptiles - Extent of areas subject to reptiles survey & results of population size class assessment	Identifies population size classes of adder, common lizard, grass snake and slow worm based on a scale from high, medium, low and absent.	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	
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.
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.
Wintering and passage birds - protection status: Species listed on Annex I of the Birds Directive Species listed on Schedule 1 of the Wildlife and	Field survey records of selected protected and/or notable wintering birds that are considered most relevant in considering the impacts of the Proposed Scheme.	High Speed Two (HS2) Ltd	

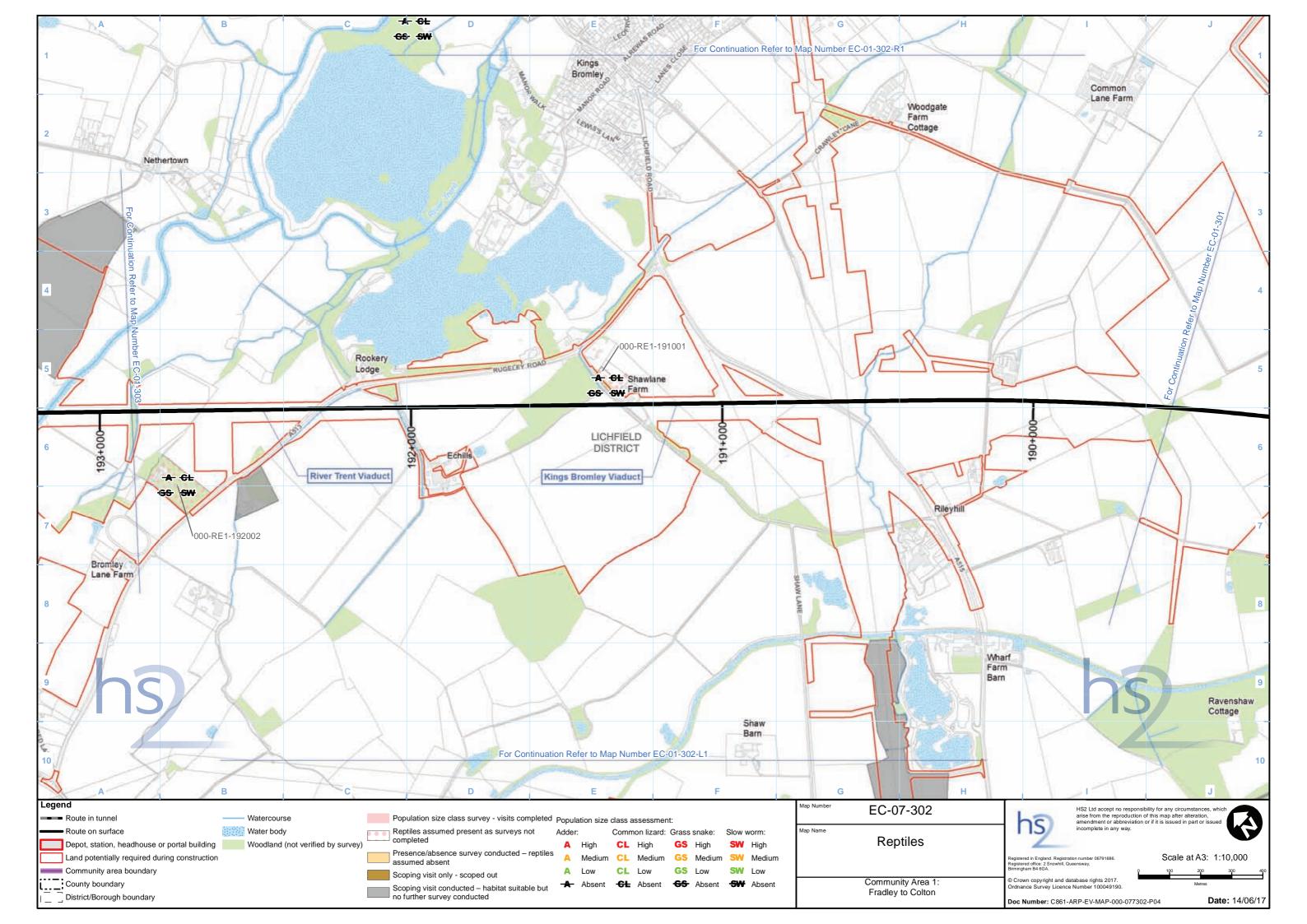
Legend features	Definition	Source	Copyright
Countryside Act			
Species listed on Annex I of the Birds Directive and			
Schedule 1 of the Wildlife and Countryside Act			
Species listed on Birds of Conservation Concern list			
relevant to assessment			
Other notable species relevant to assessment – see			
Volume 5 Appendices			
Wintering and passage birds - survey extent	Area where wintering and passage birds survey was conducted.	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.

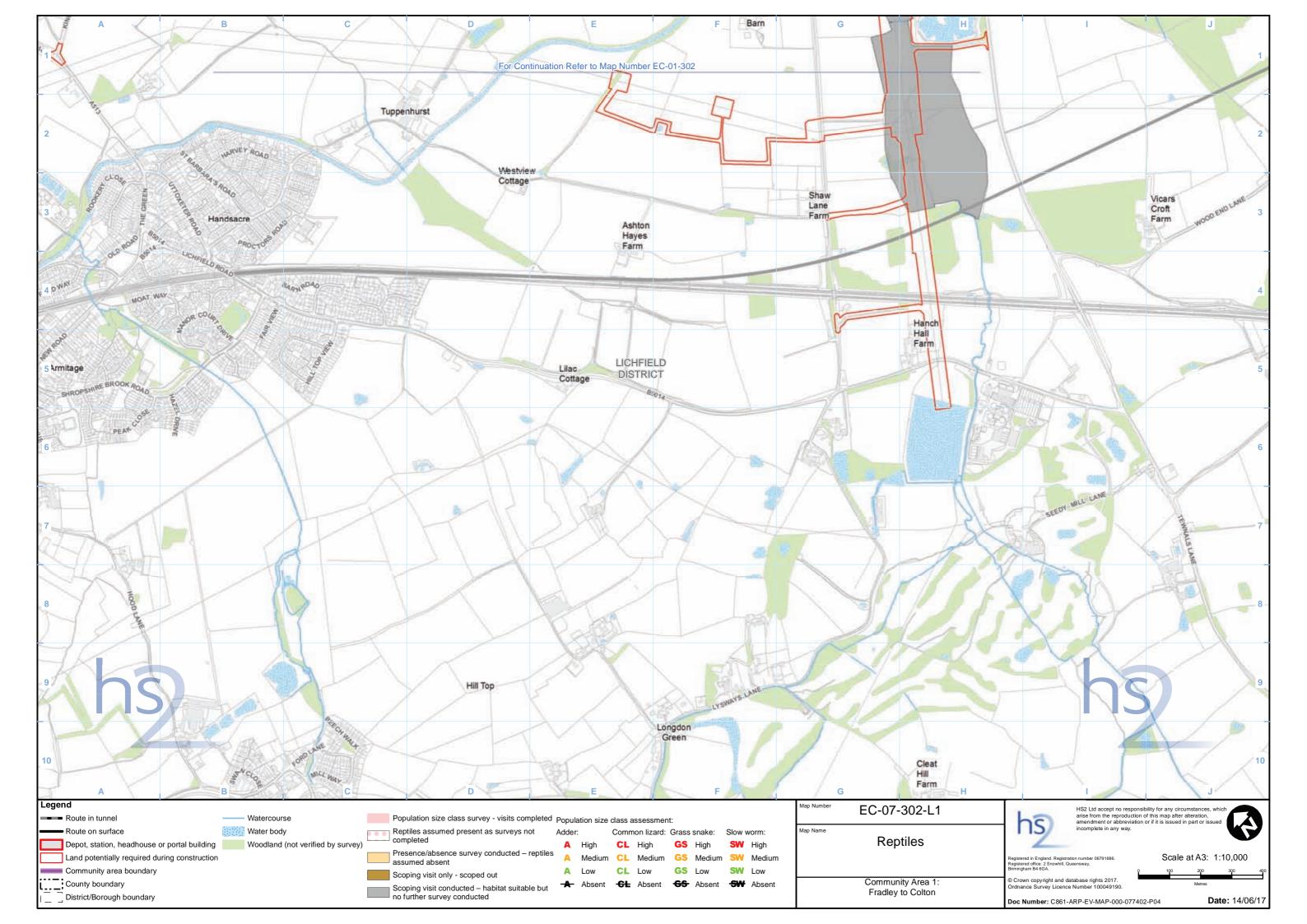
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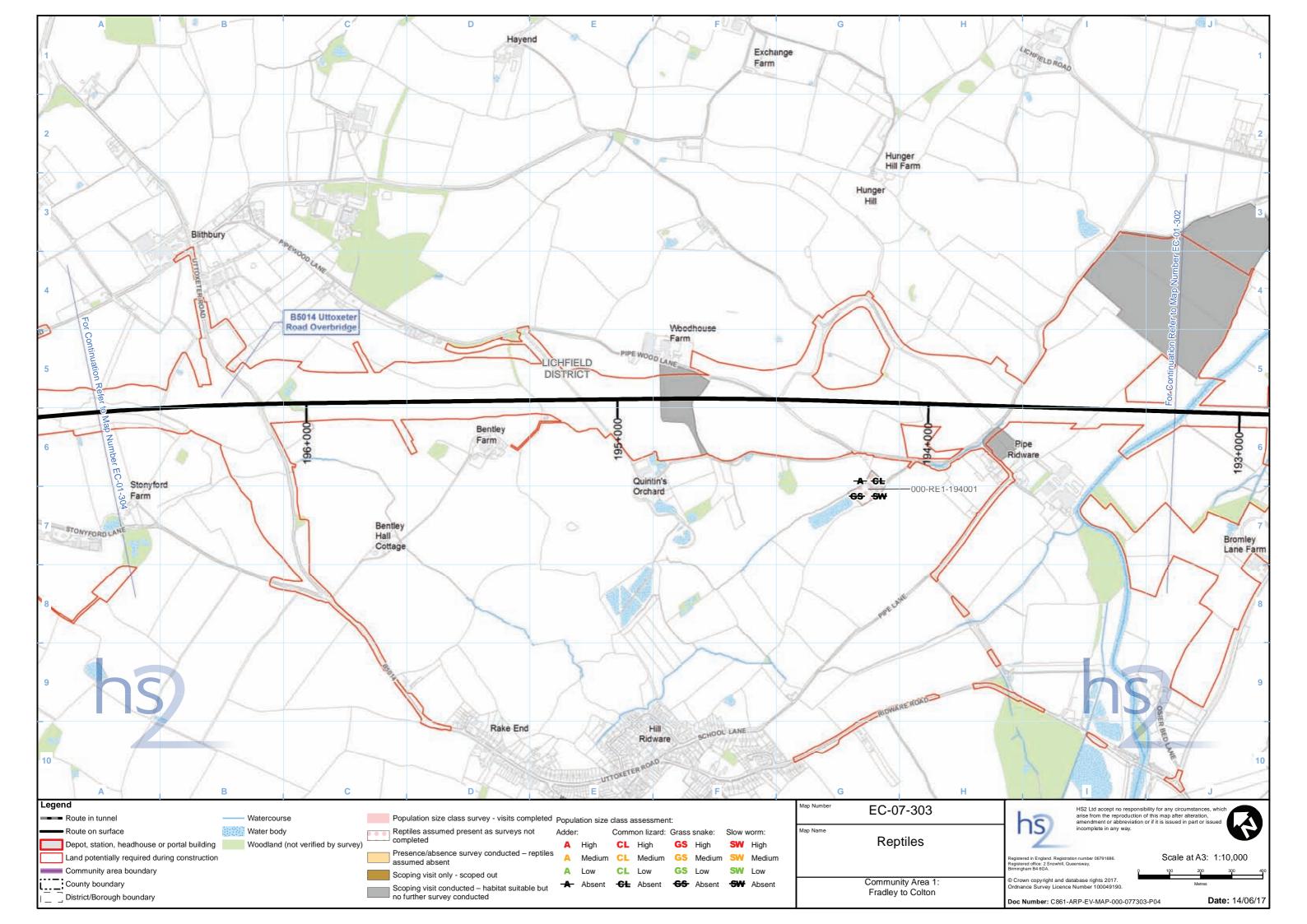
High Speed Two Phase 2a (West Midlands-Crewe)
Background Information and Data
EC-07 - Reptiles

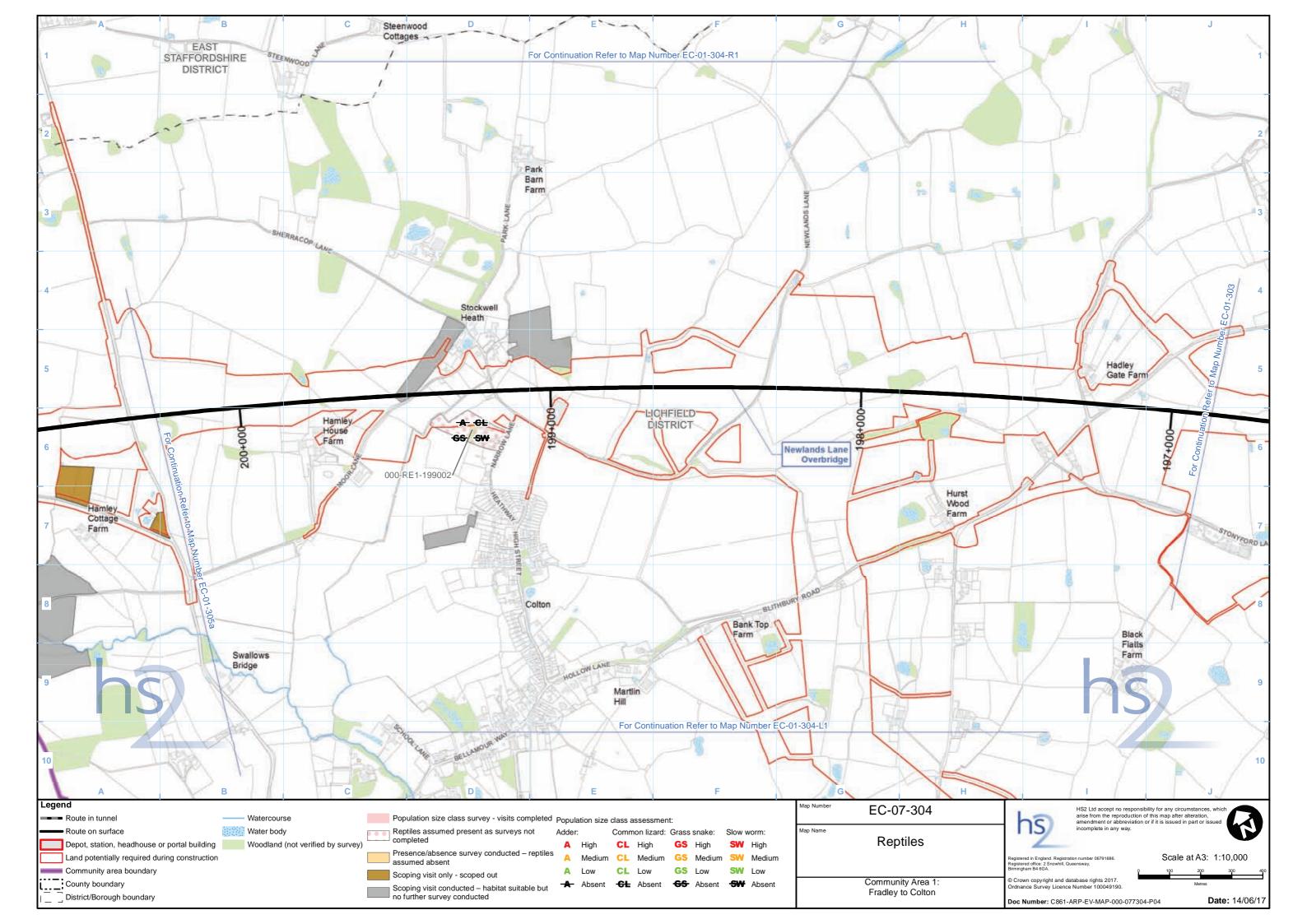


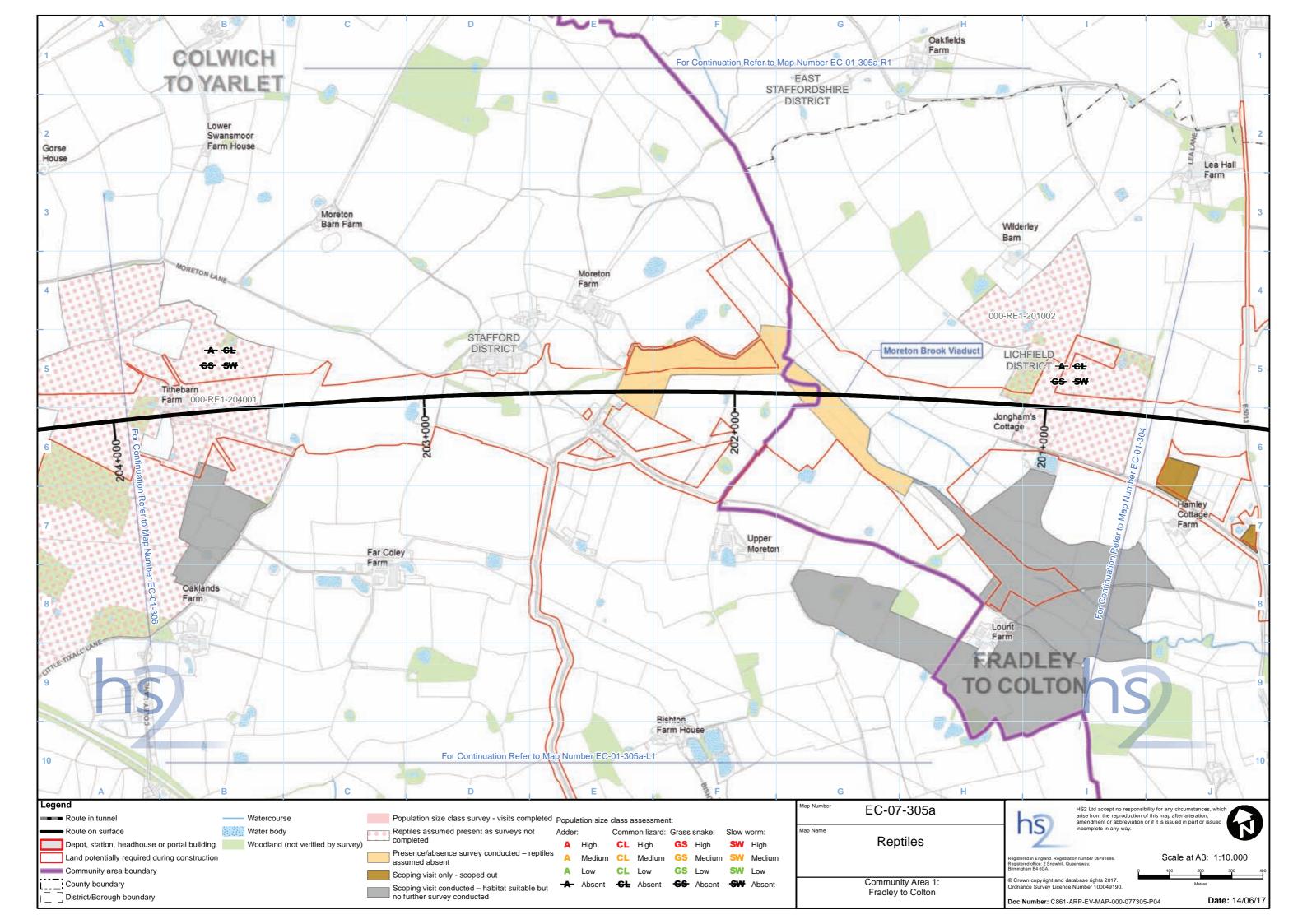




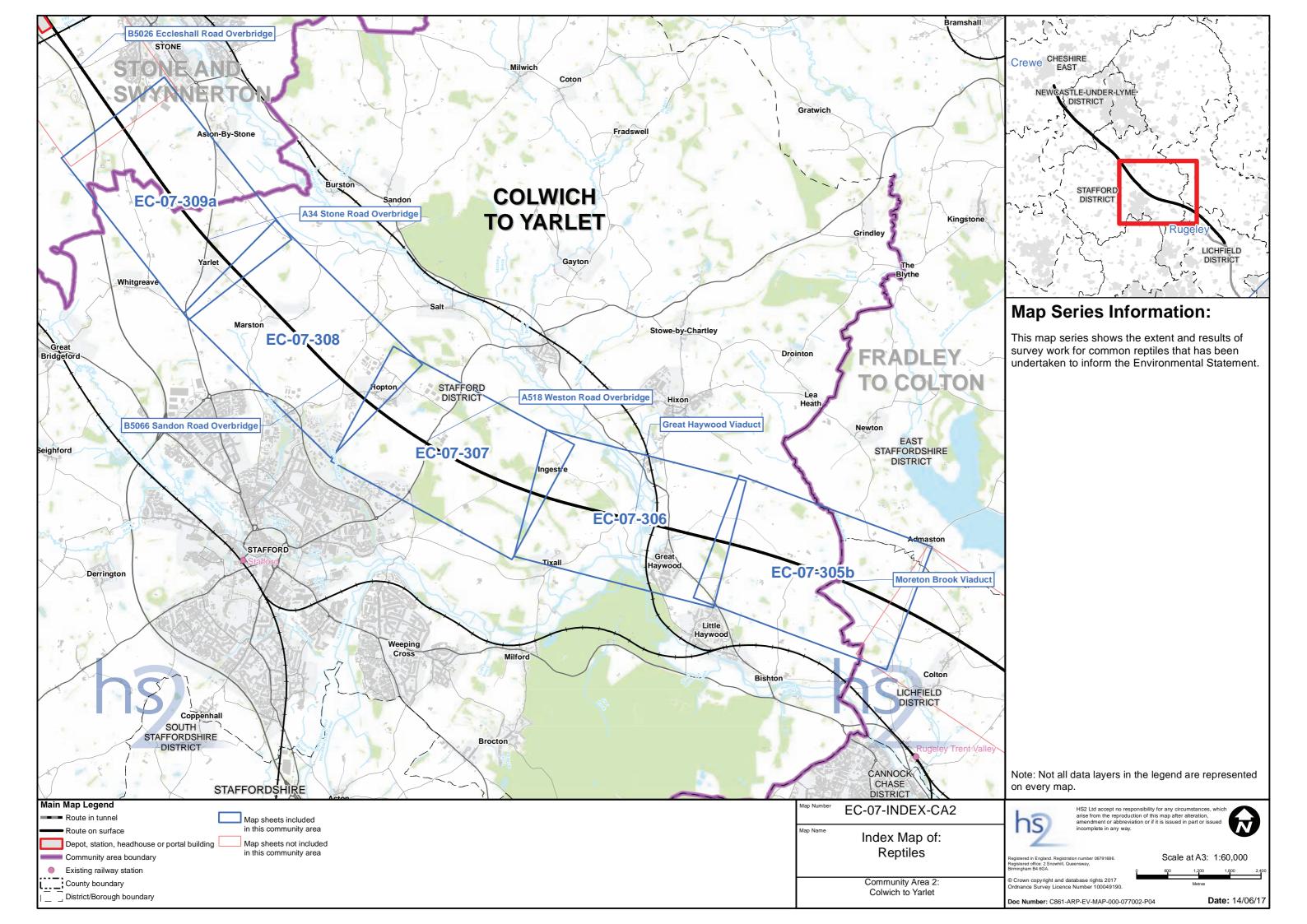


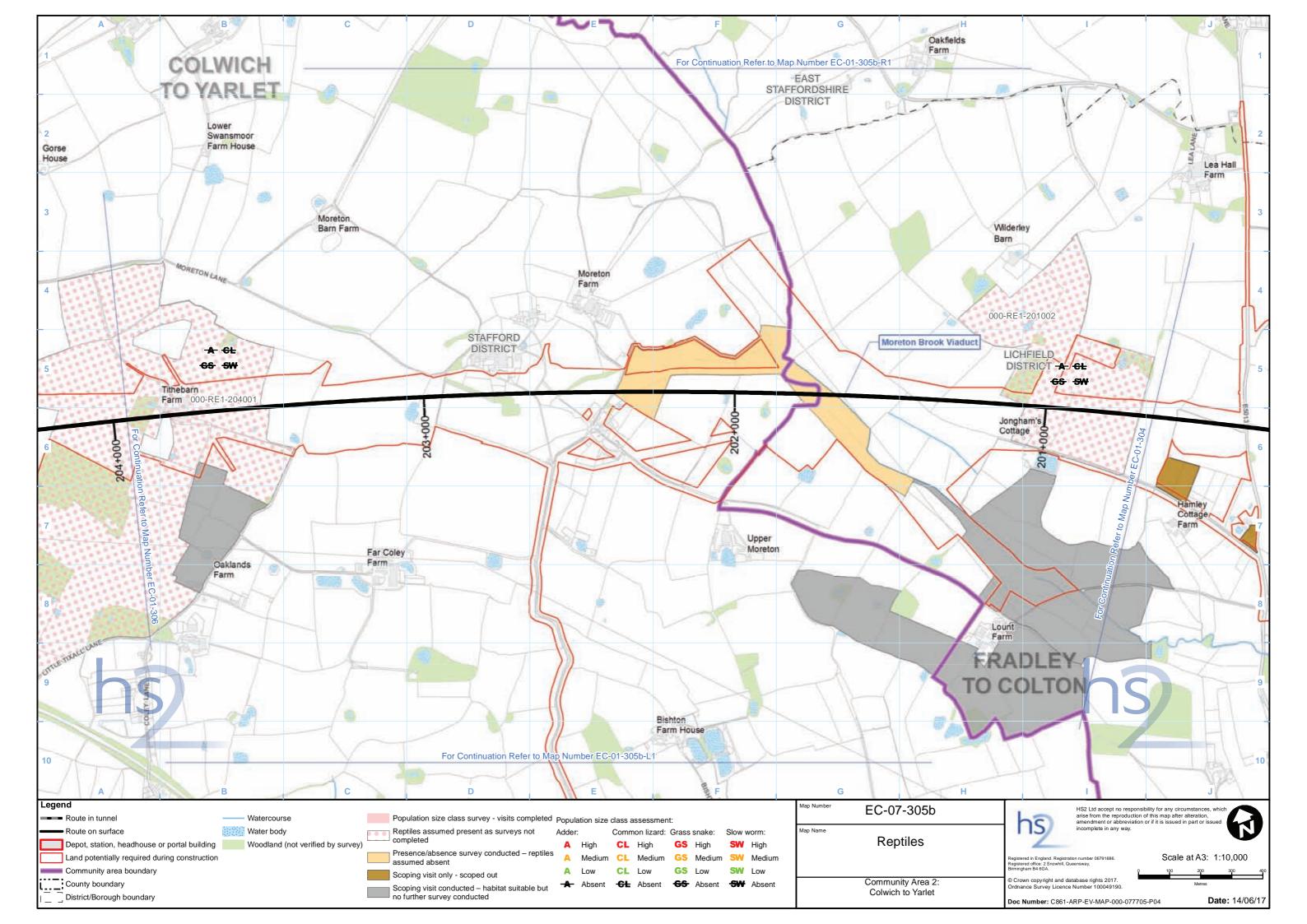


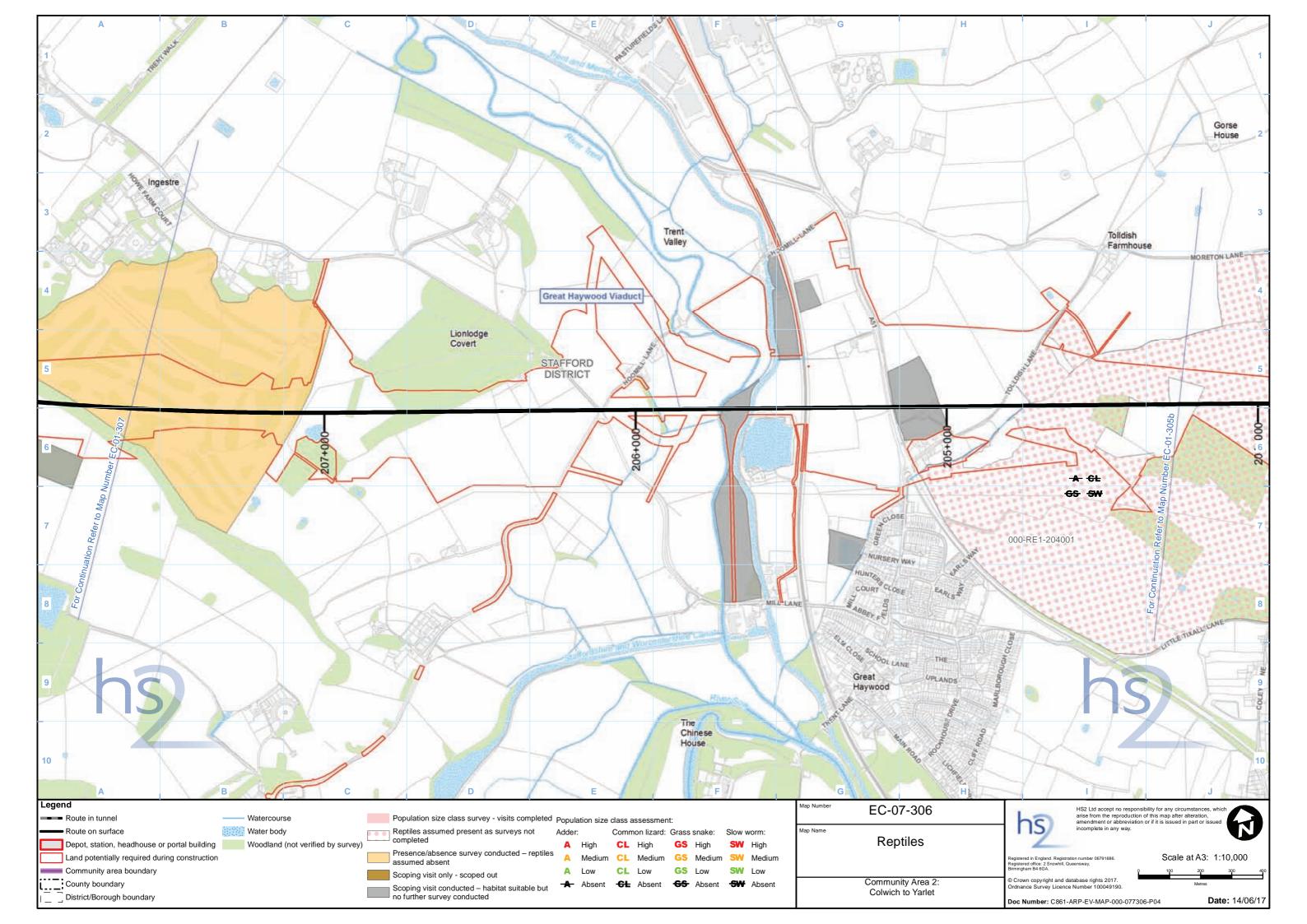


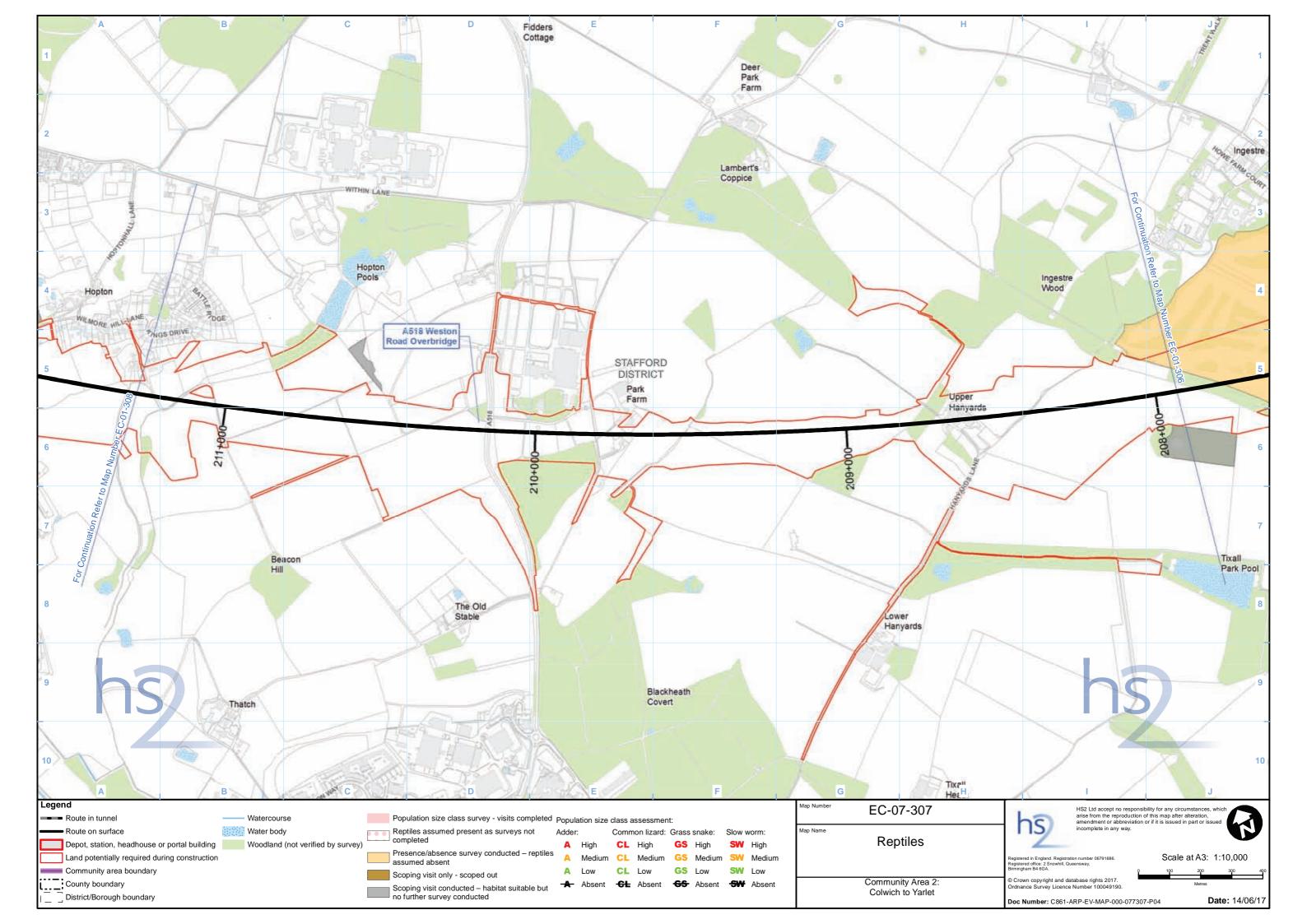


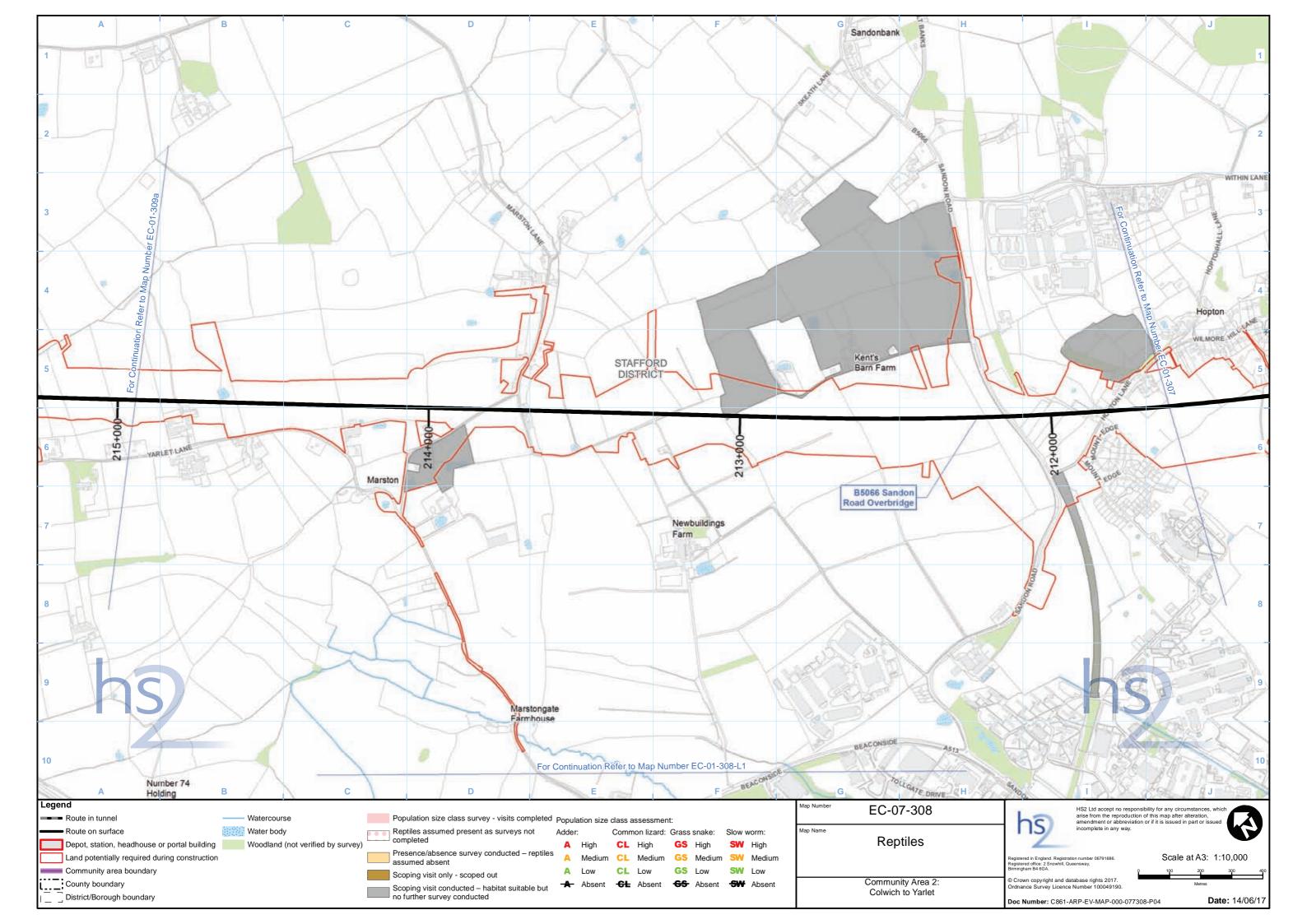
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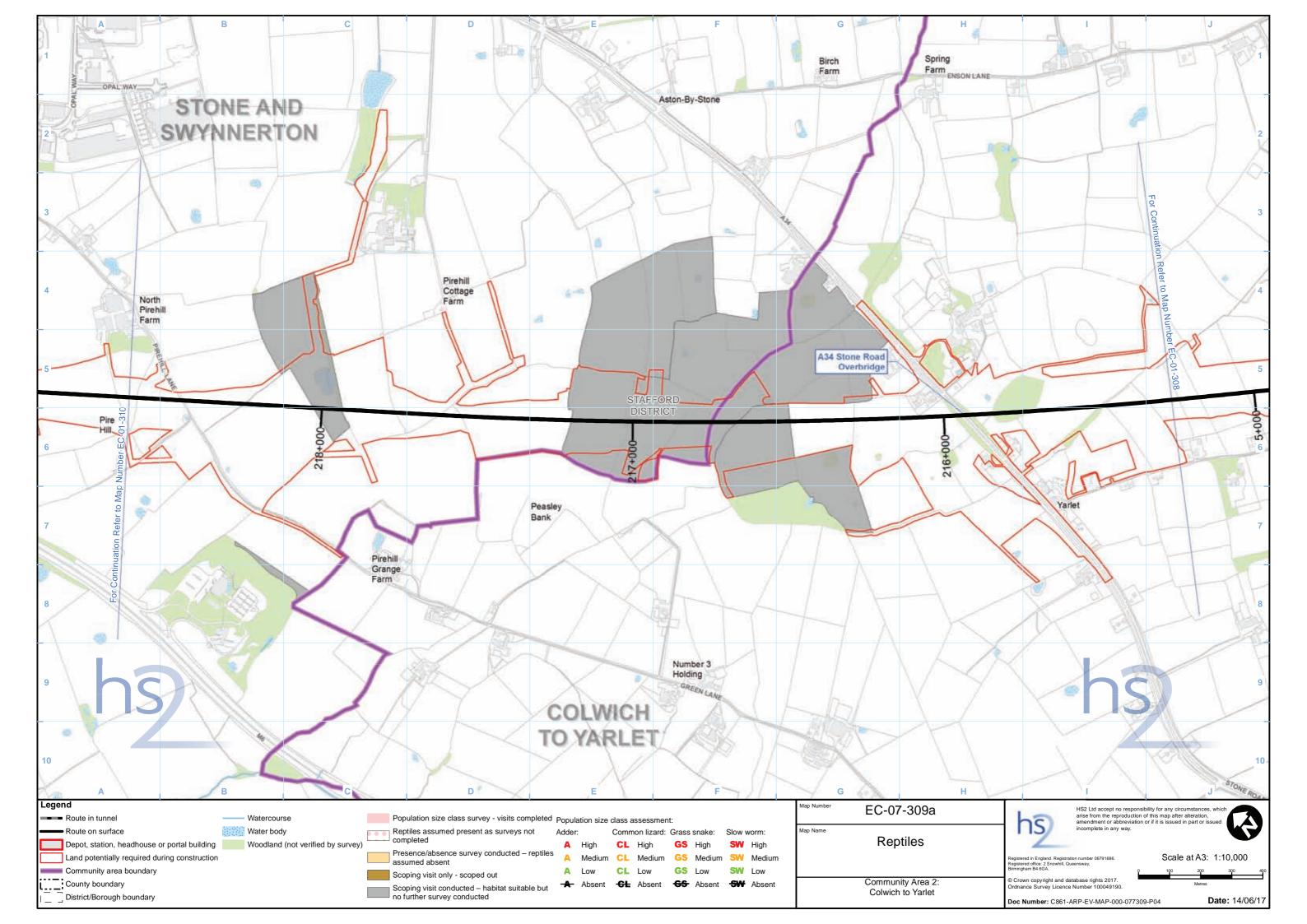


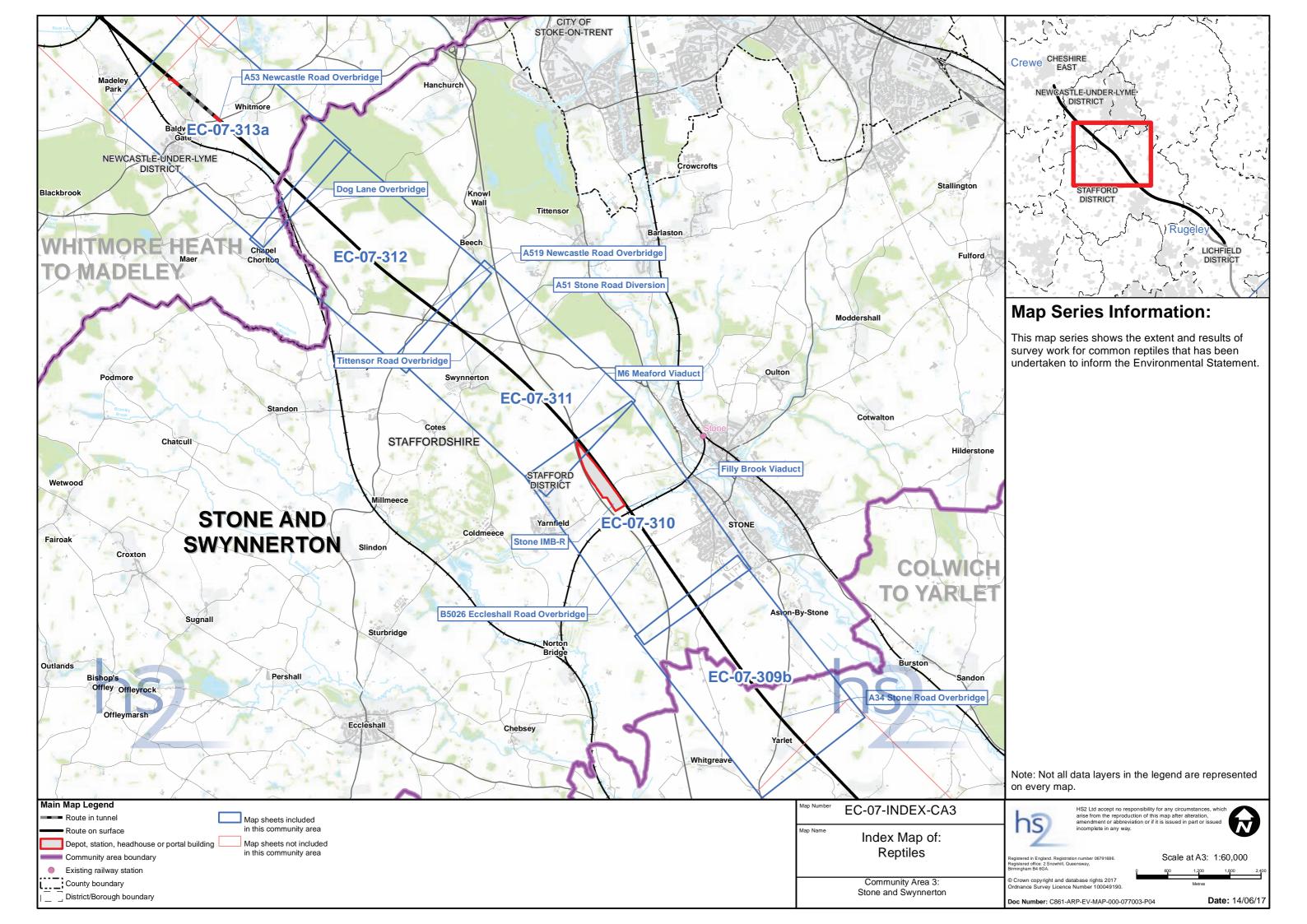


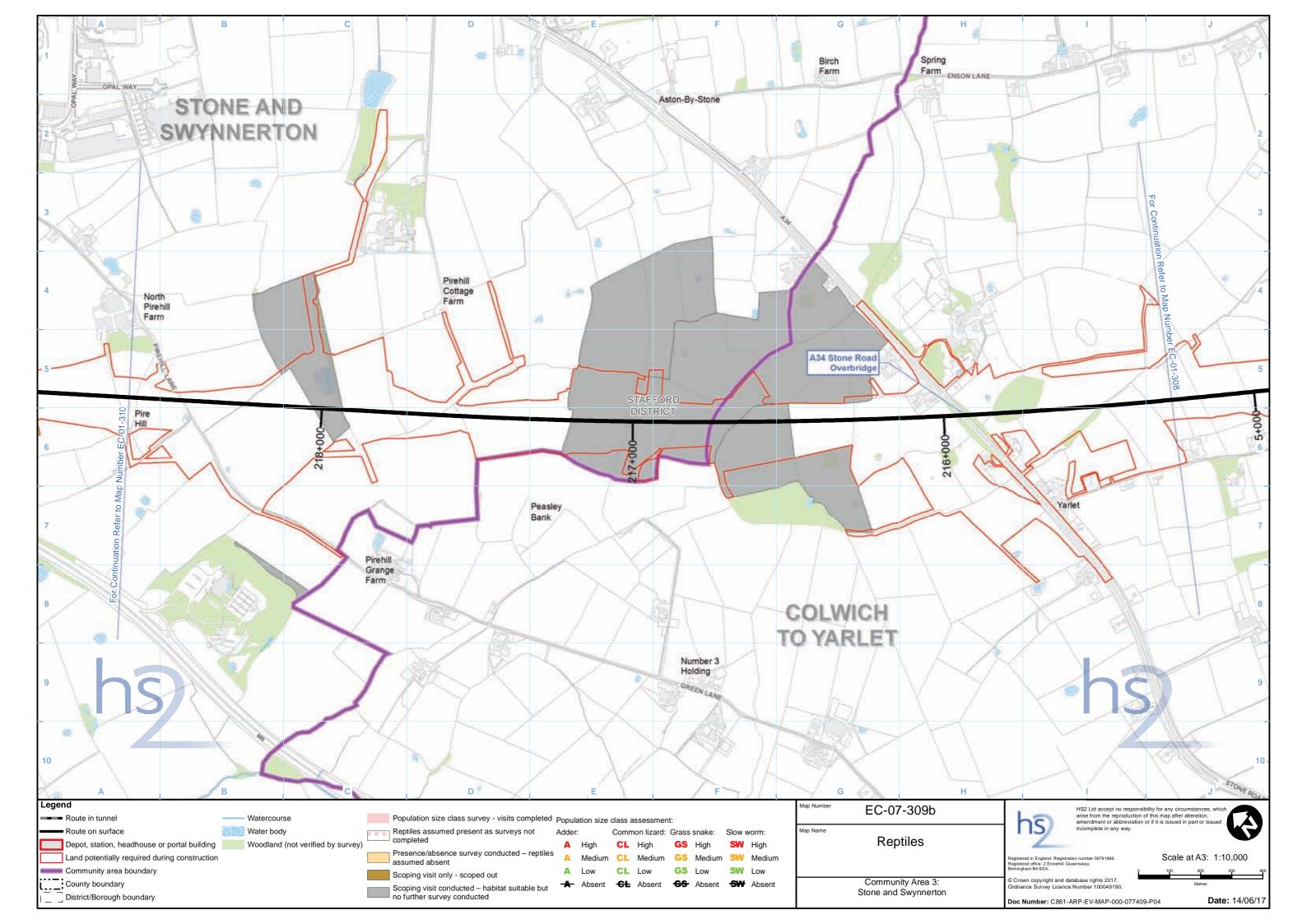


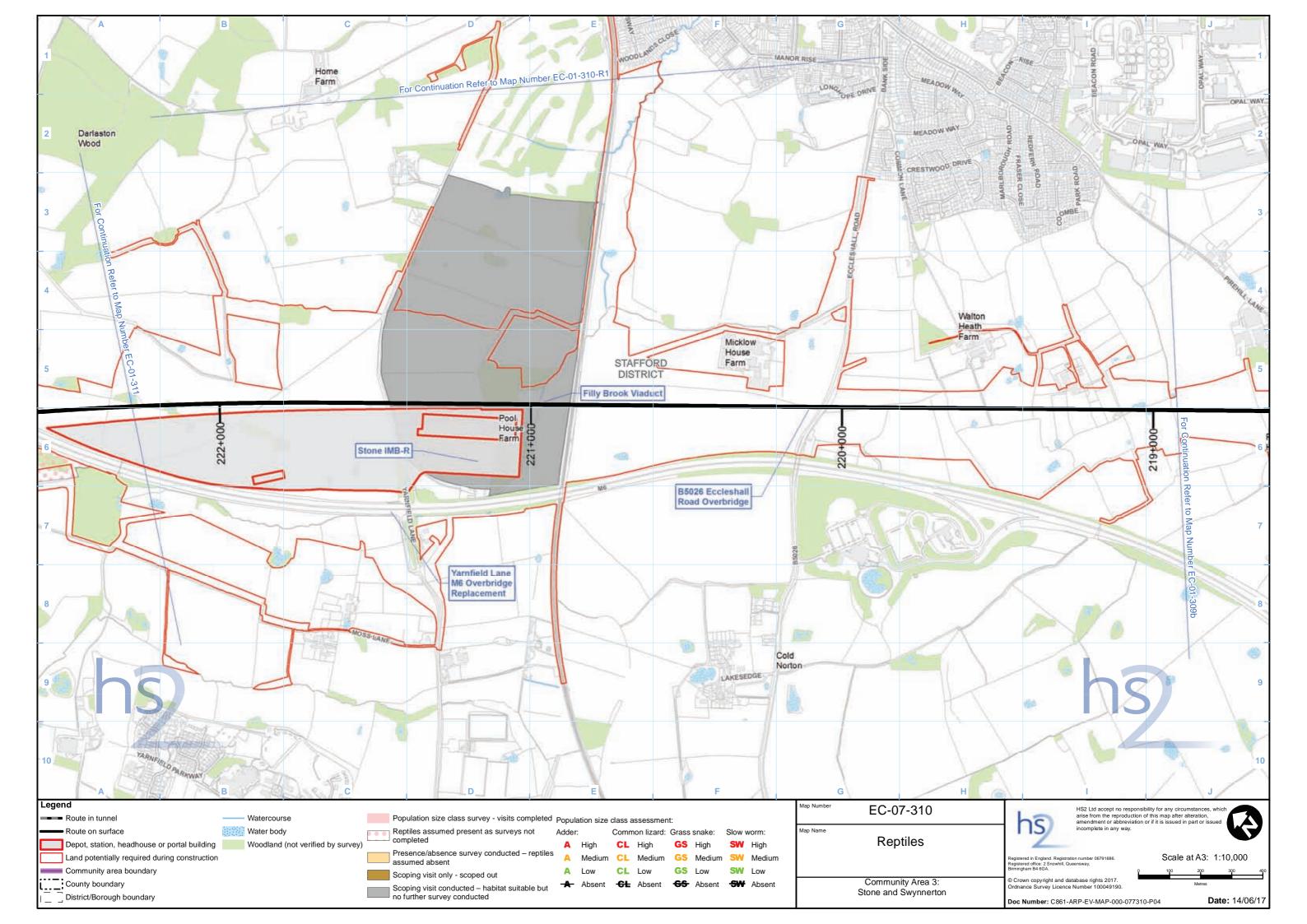


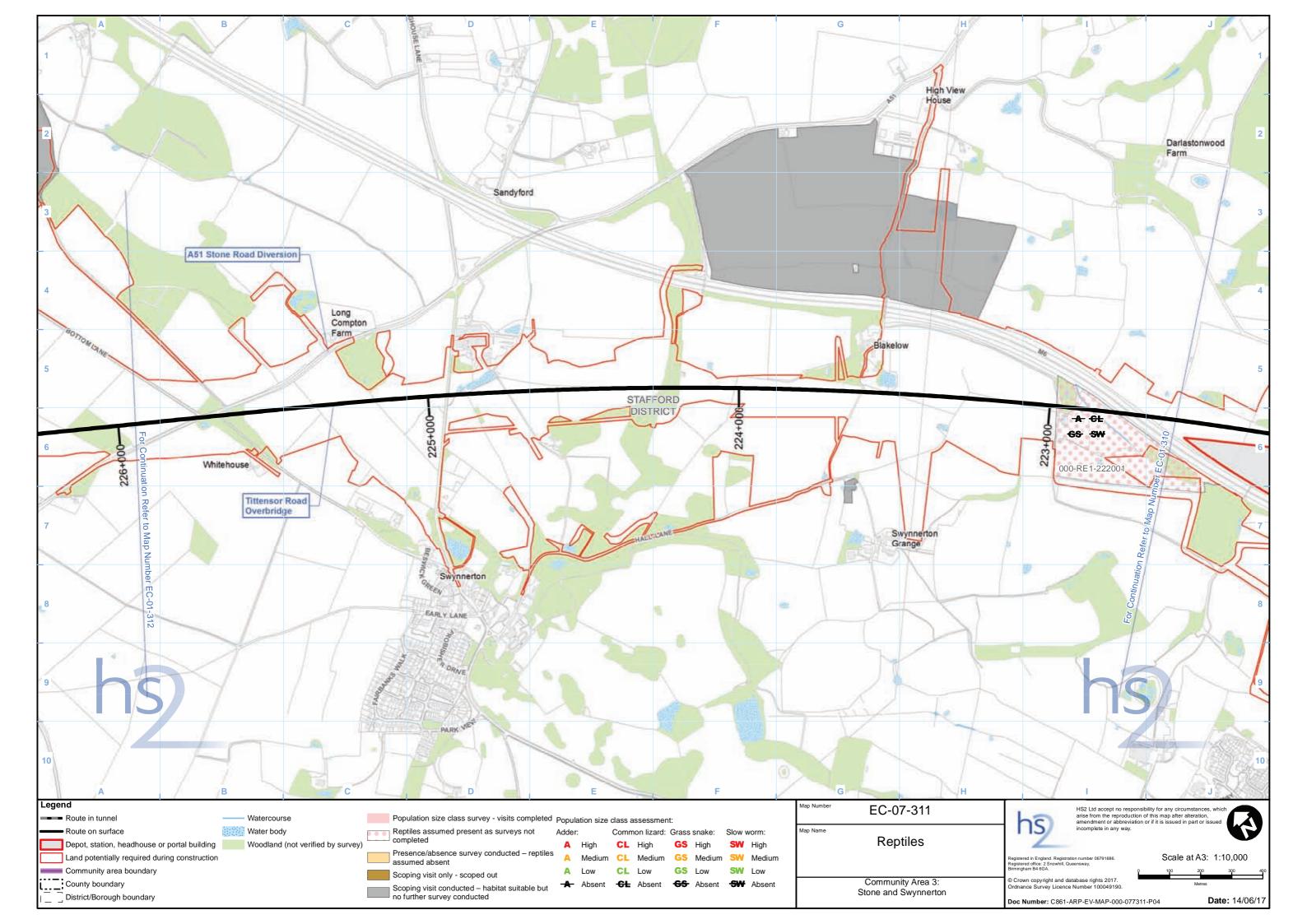


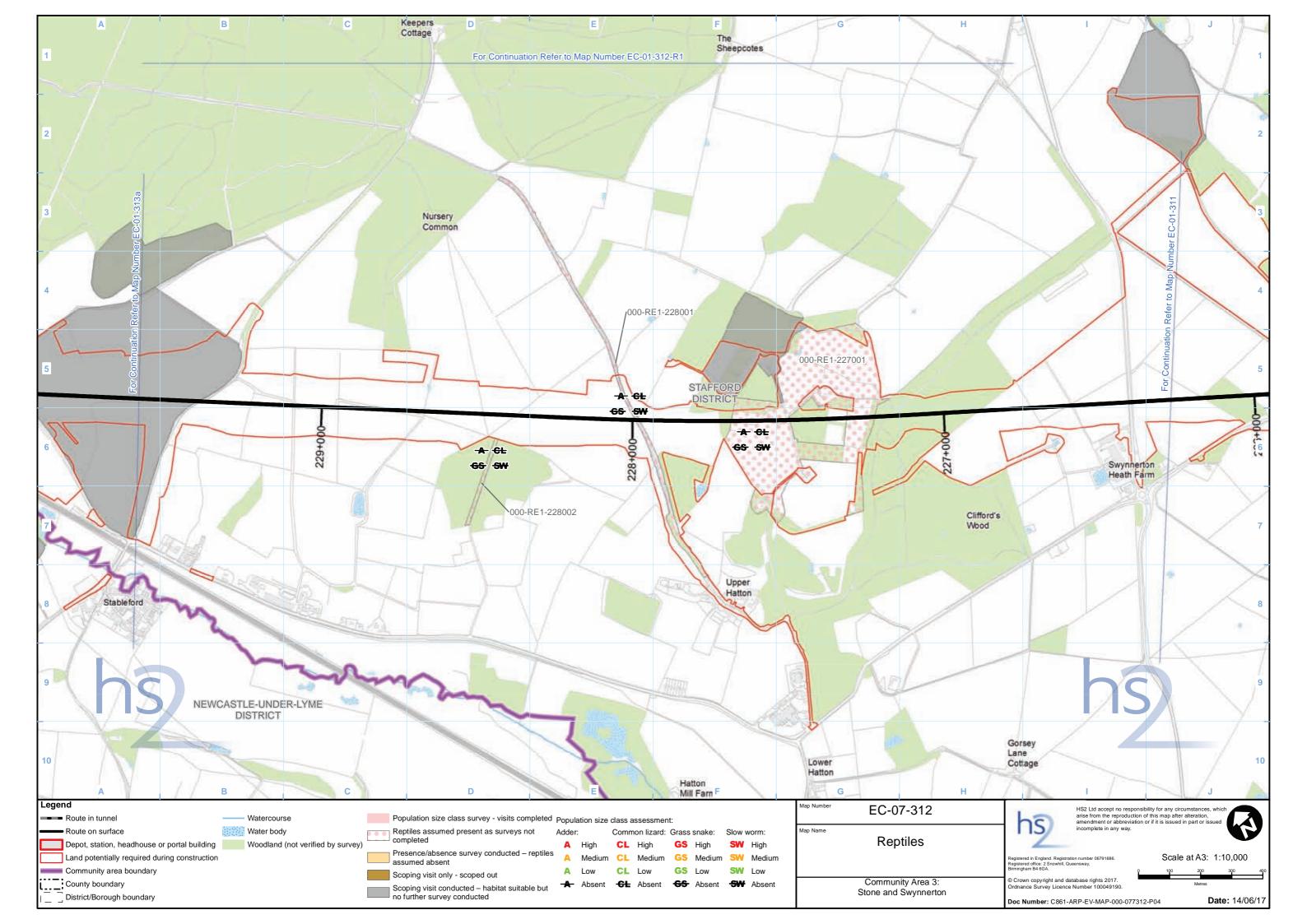


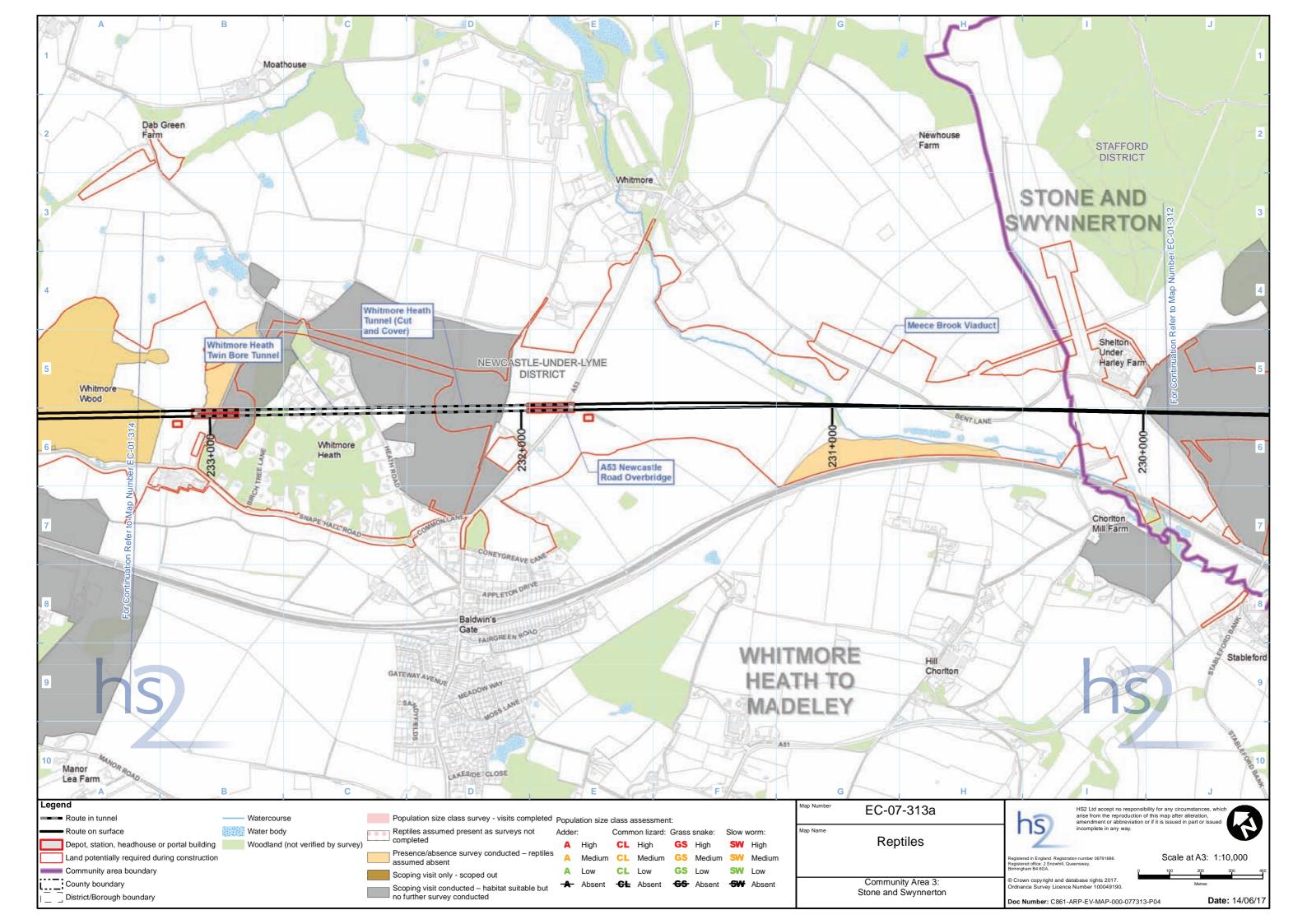


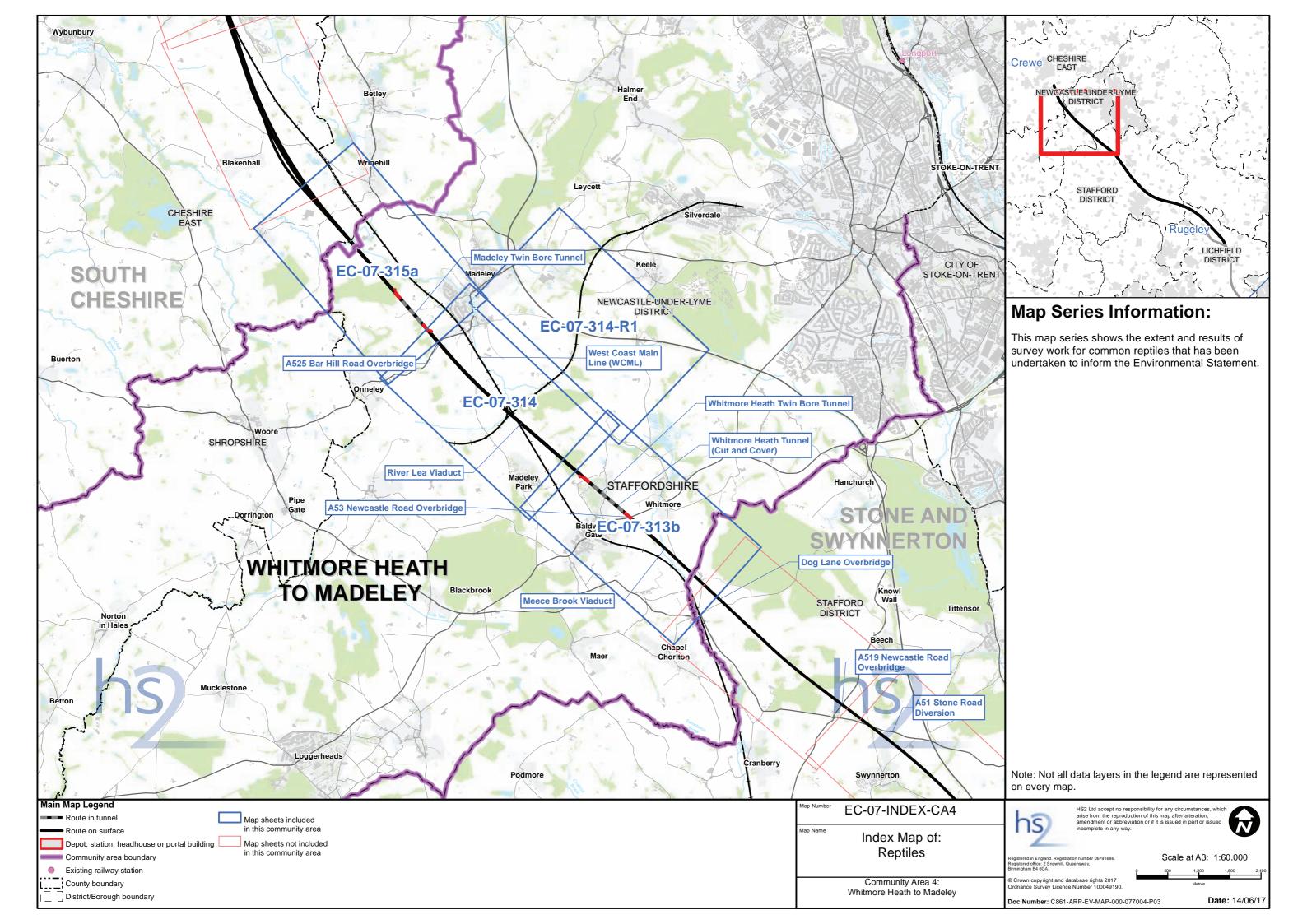


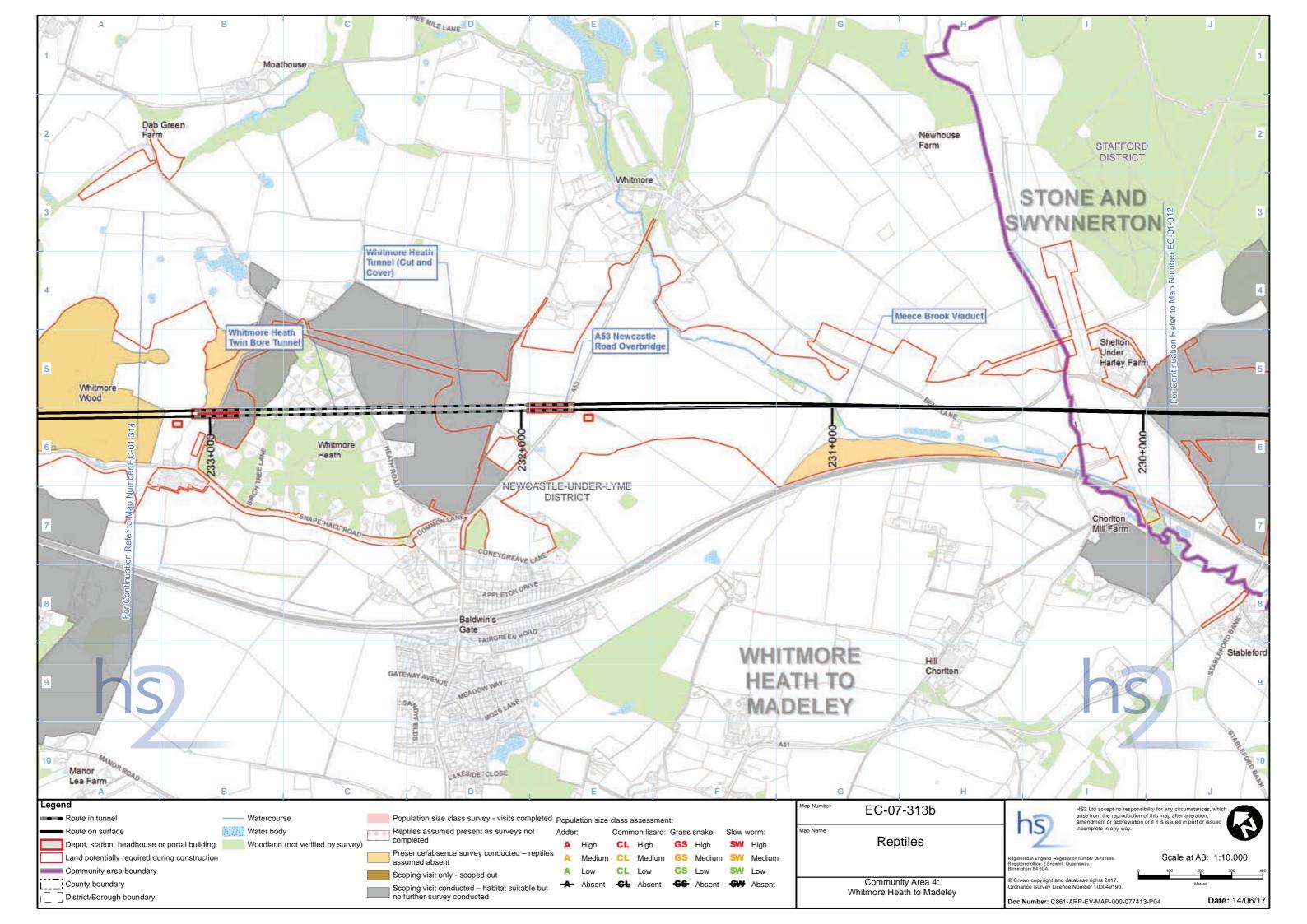


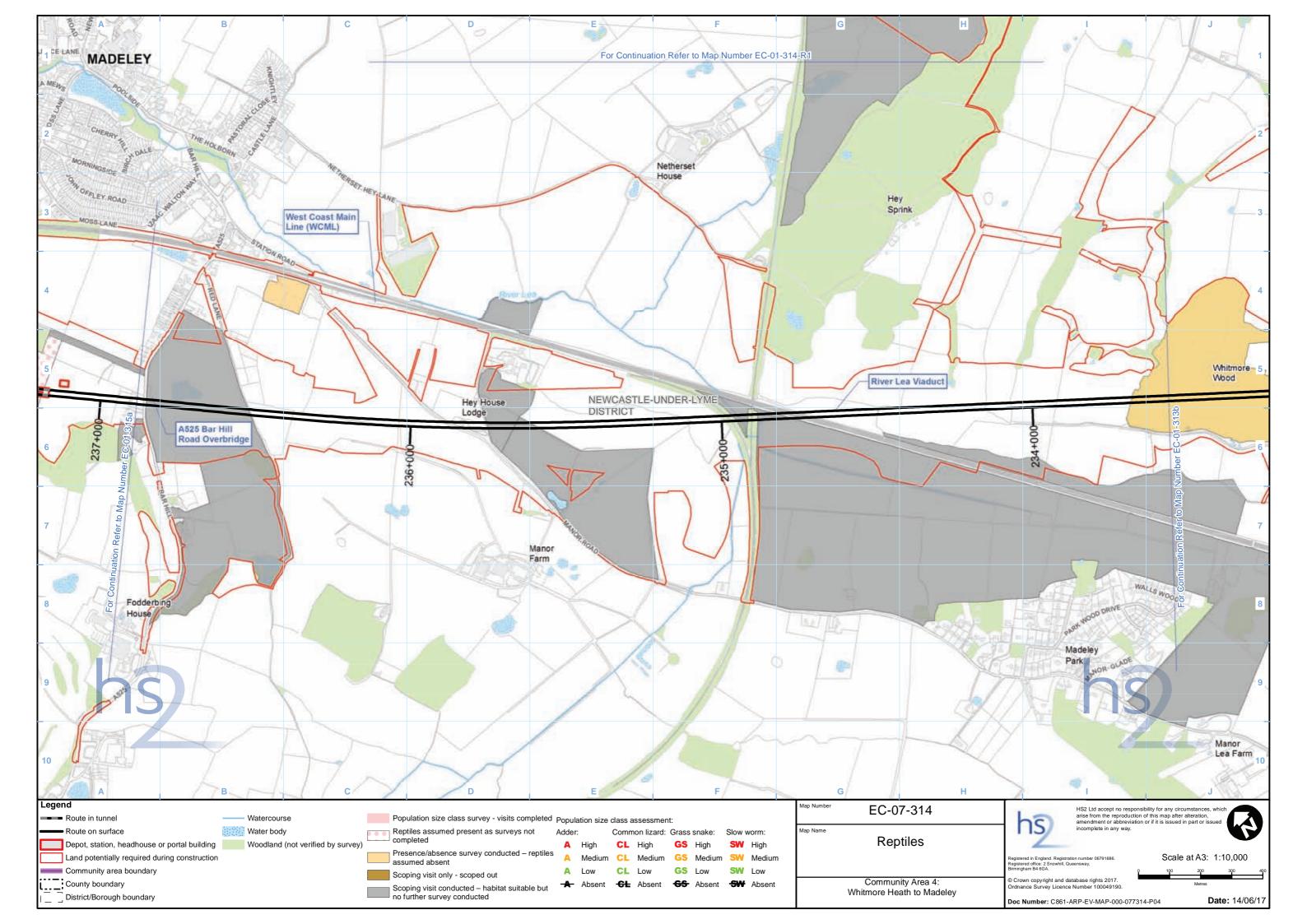


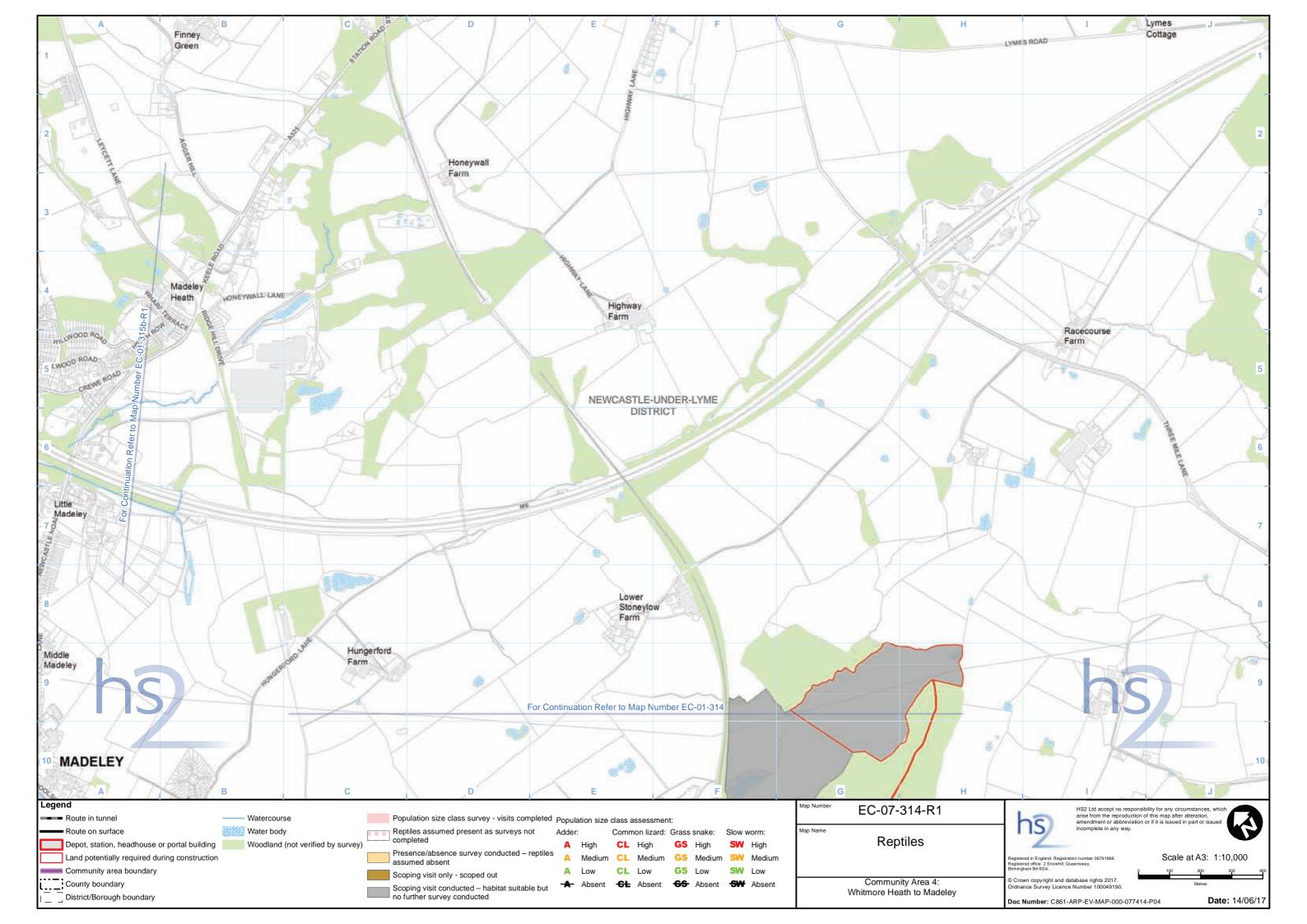


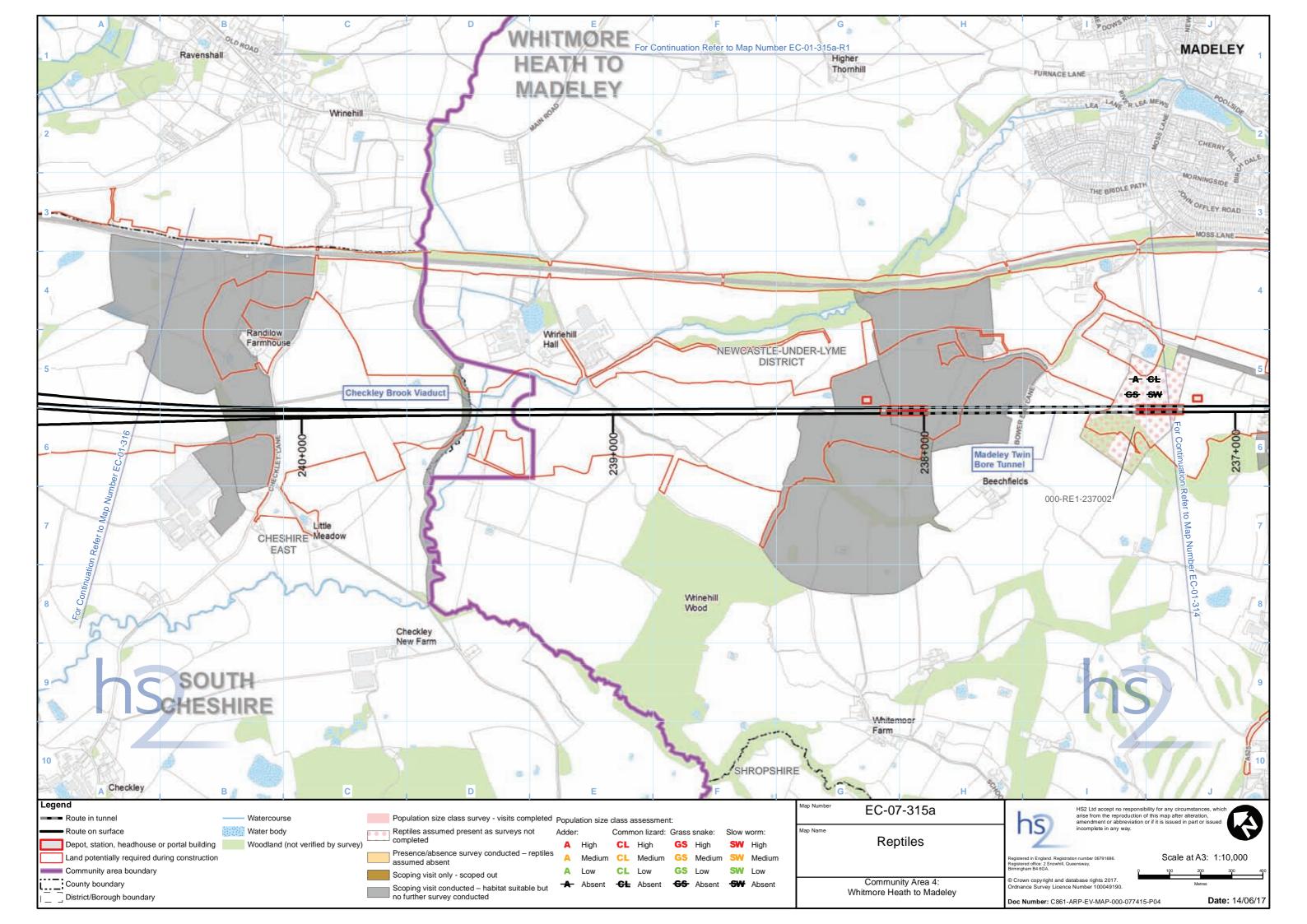




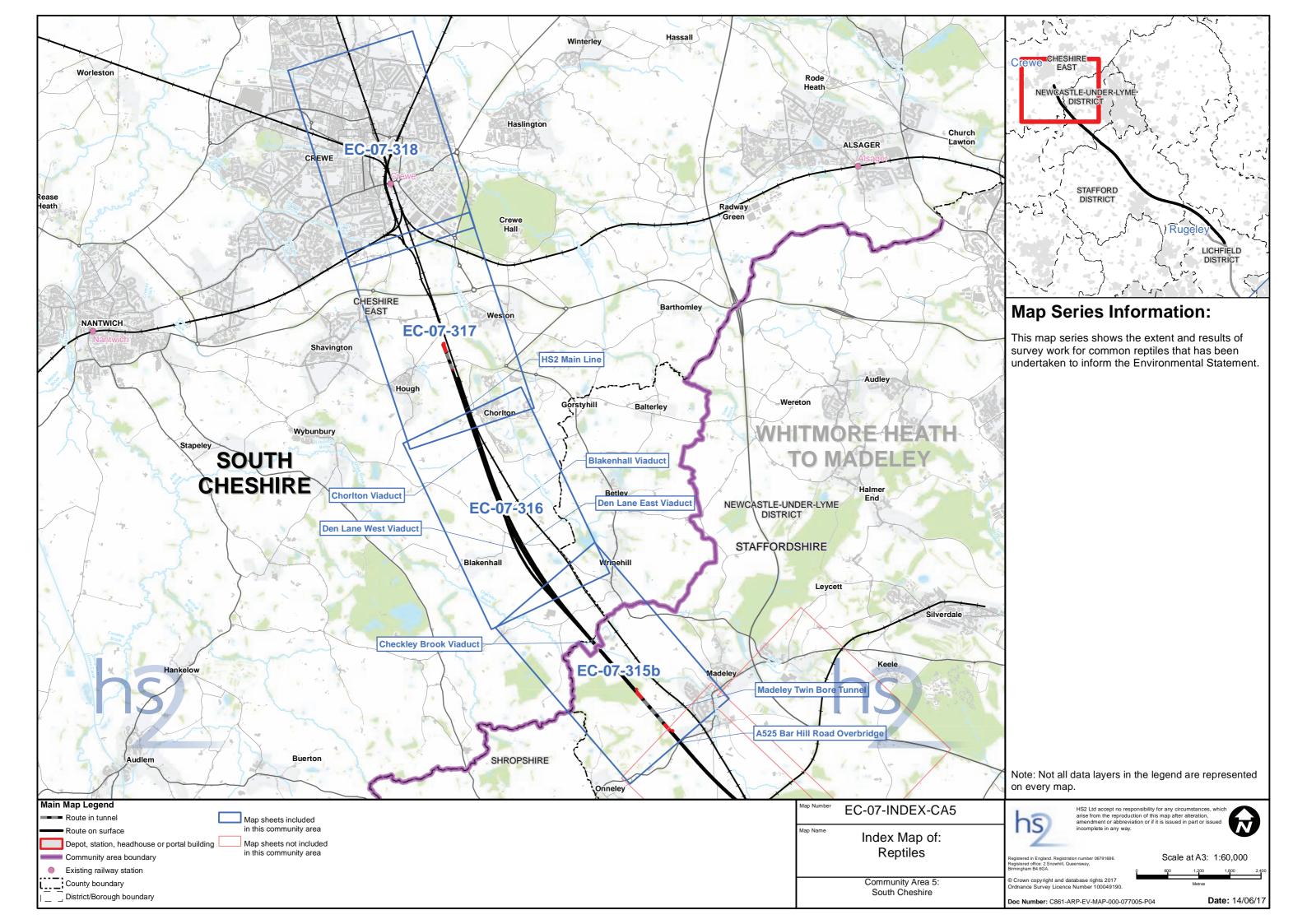


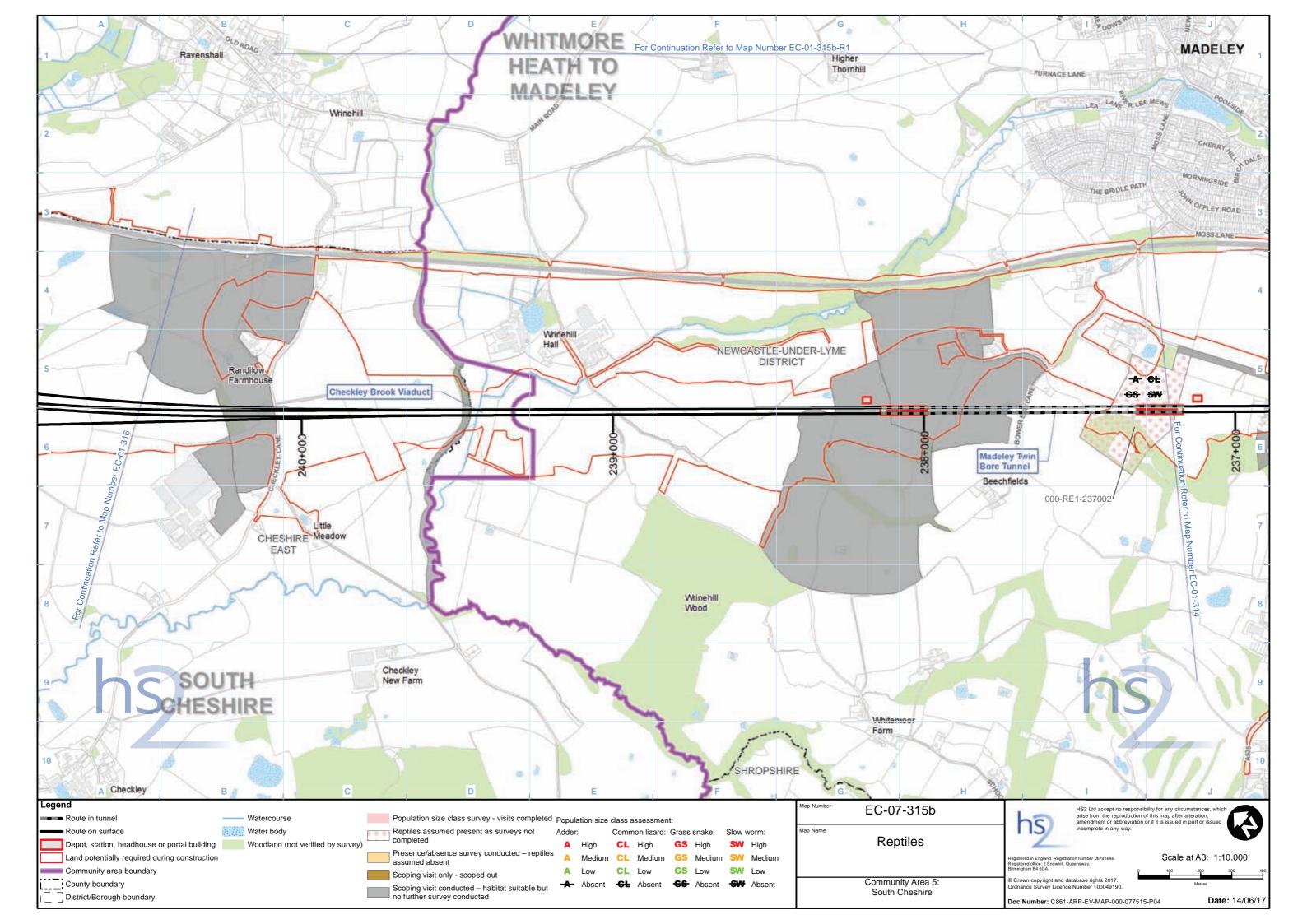


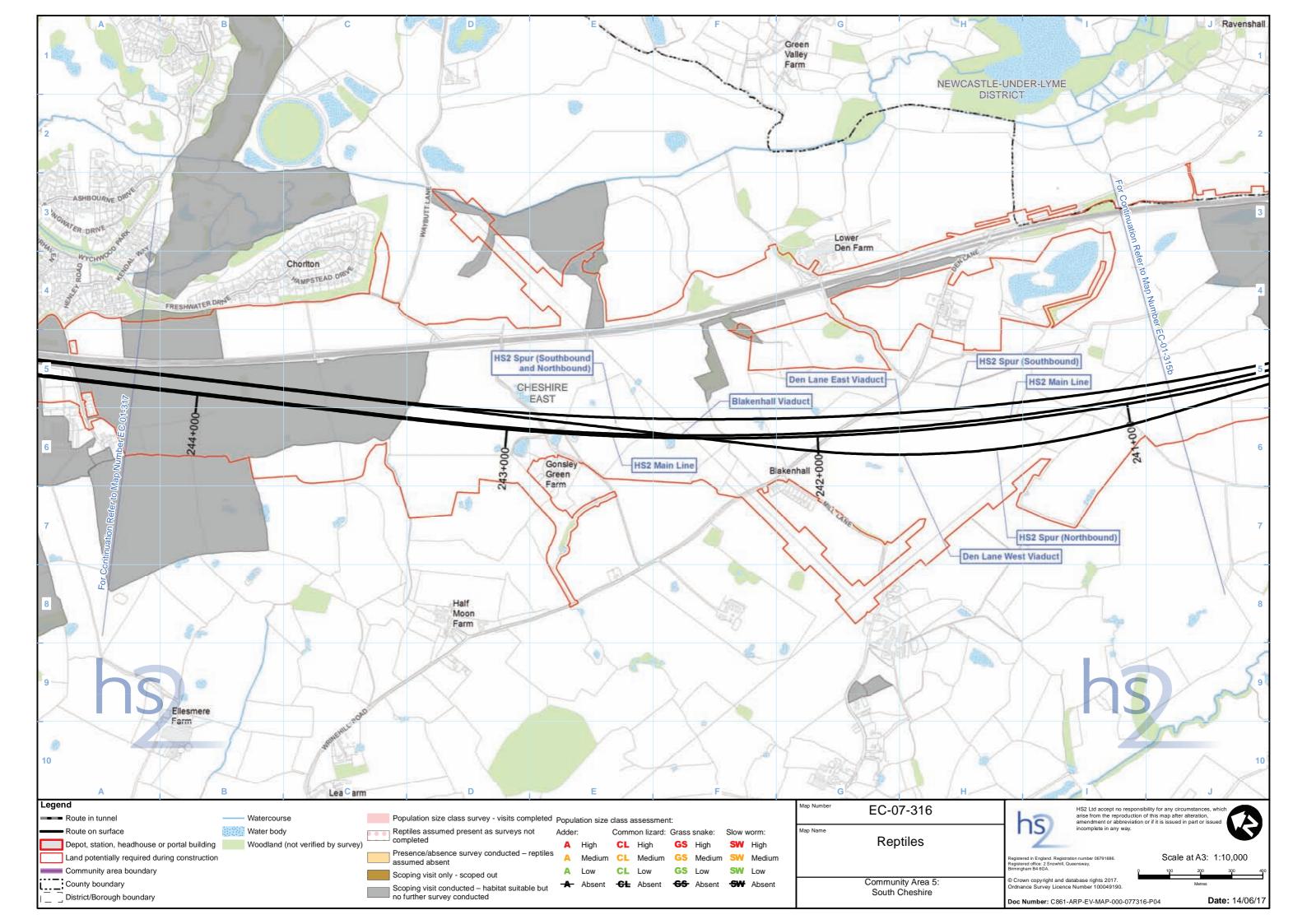


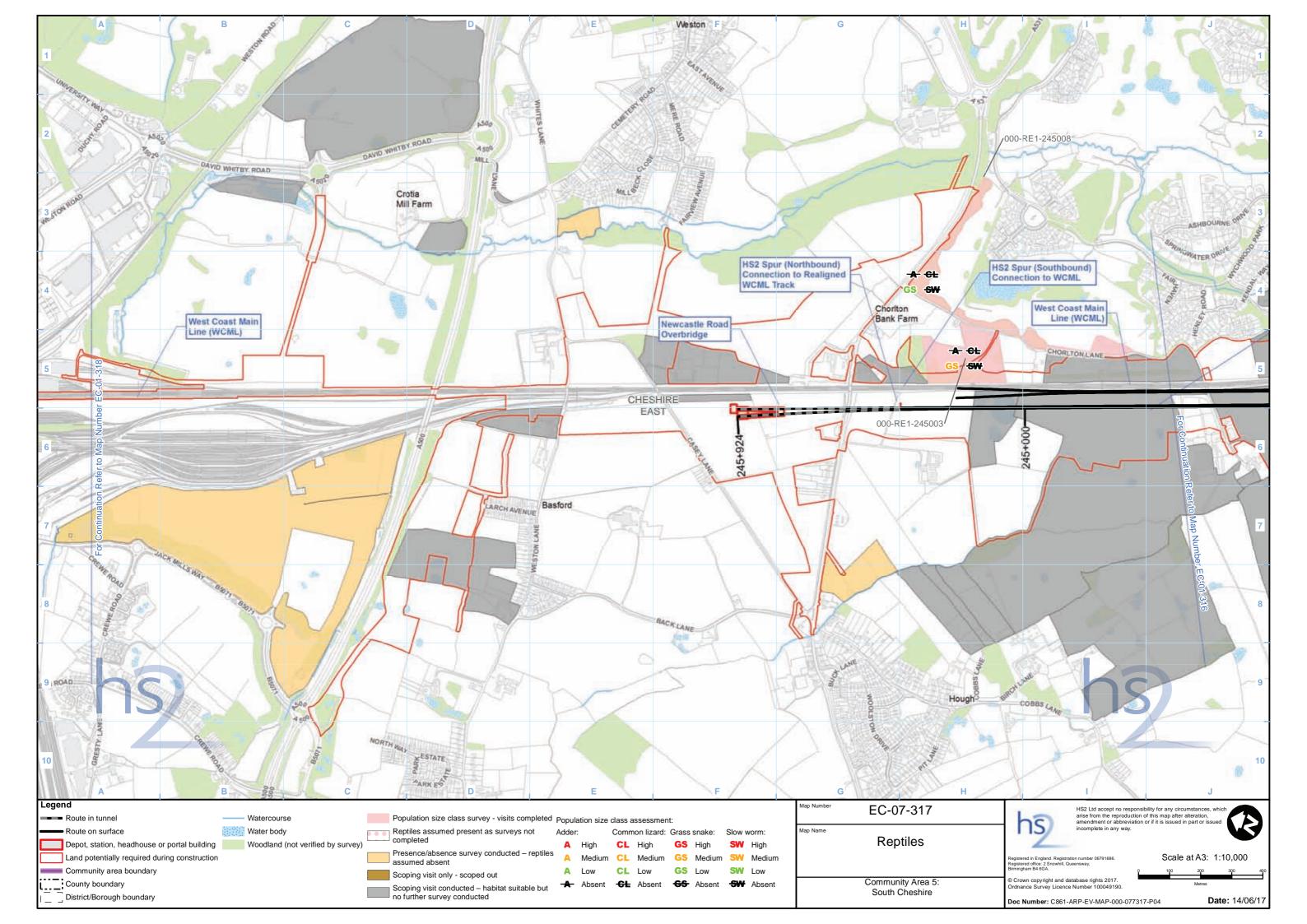


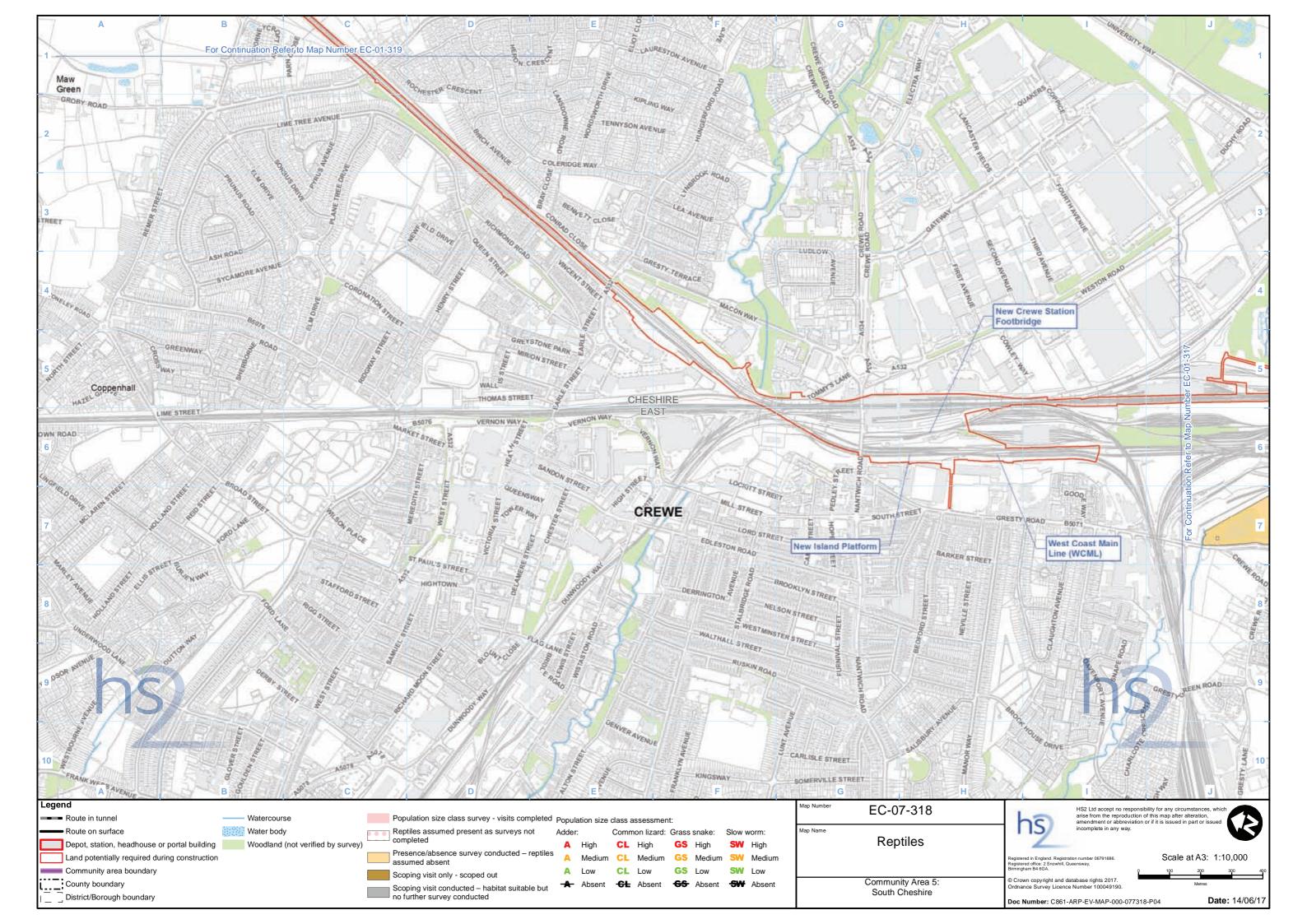
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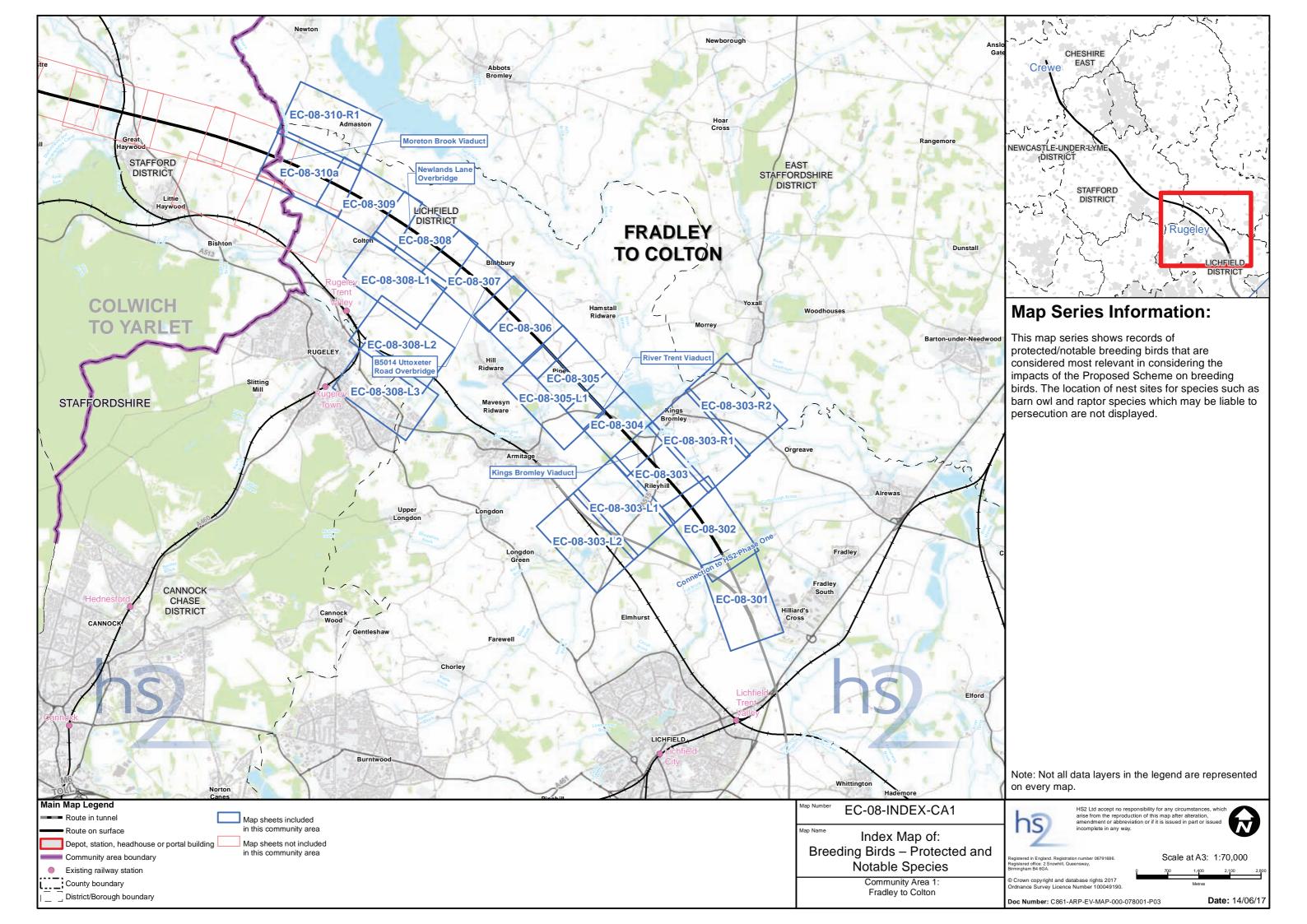


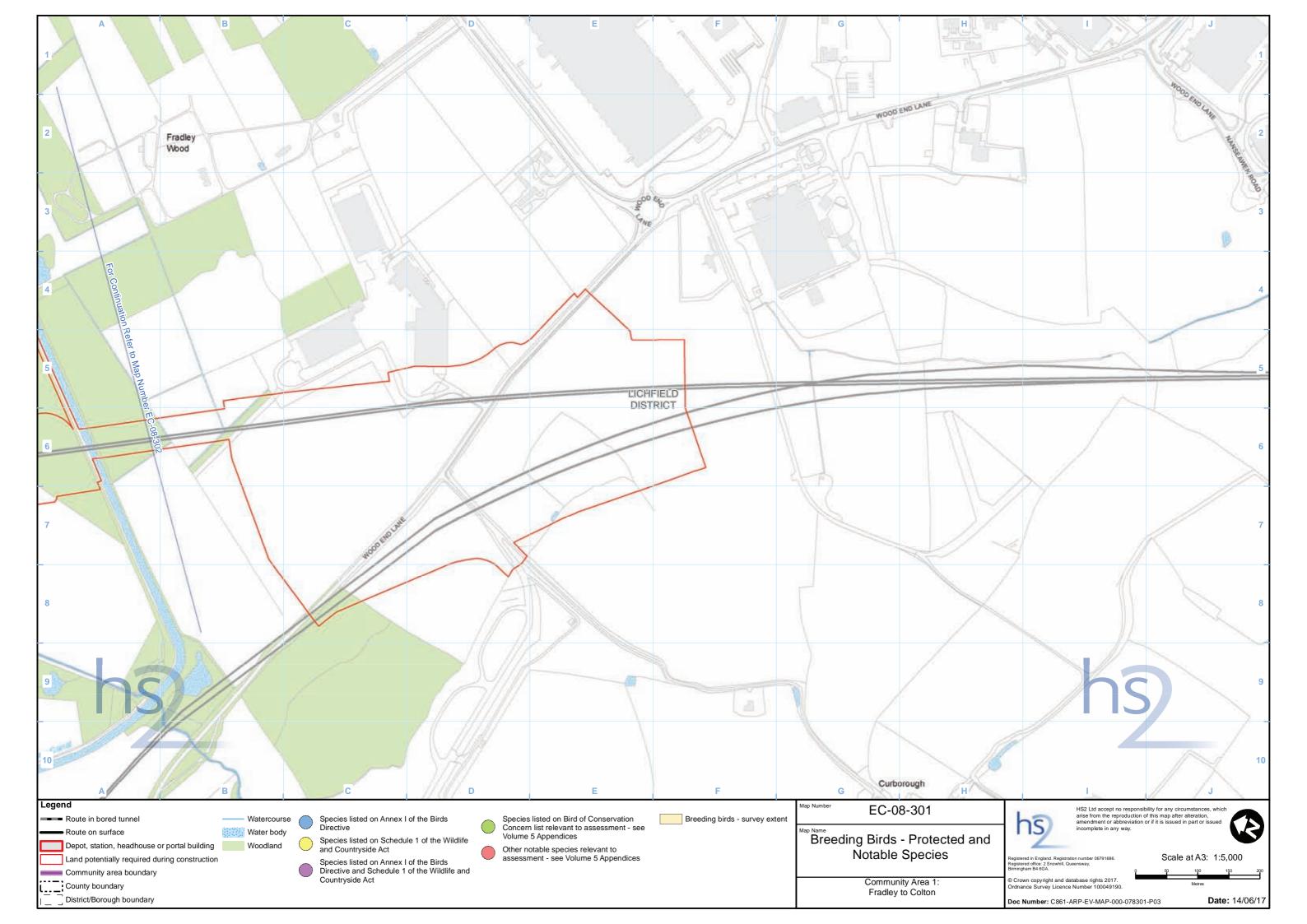


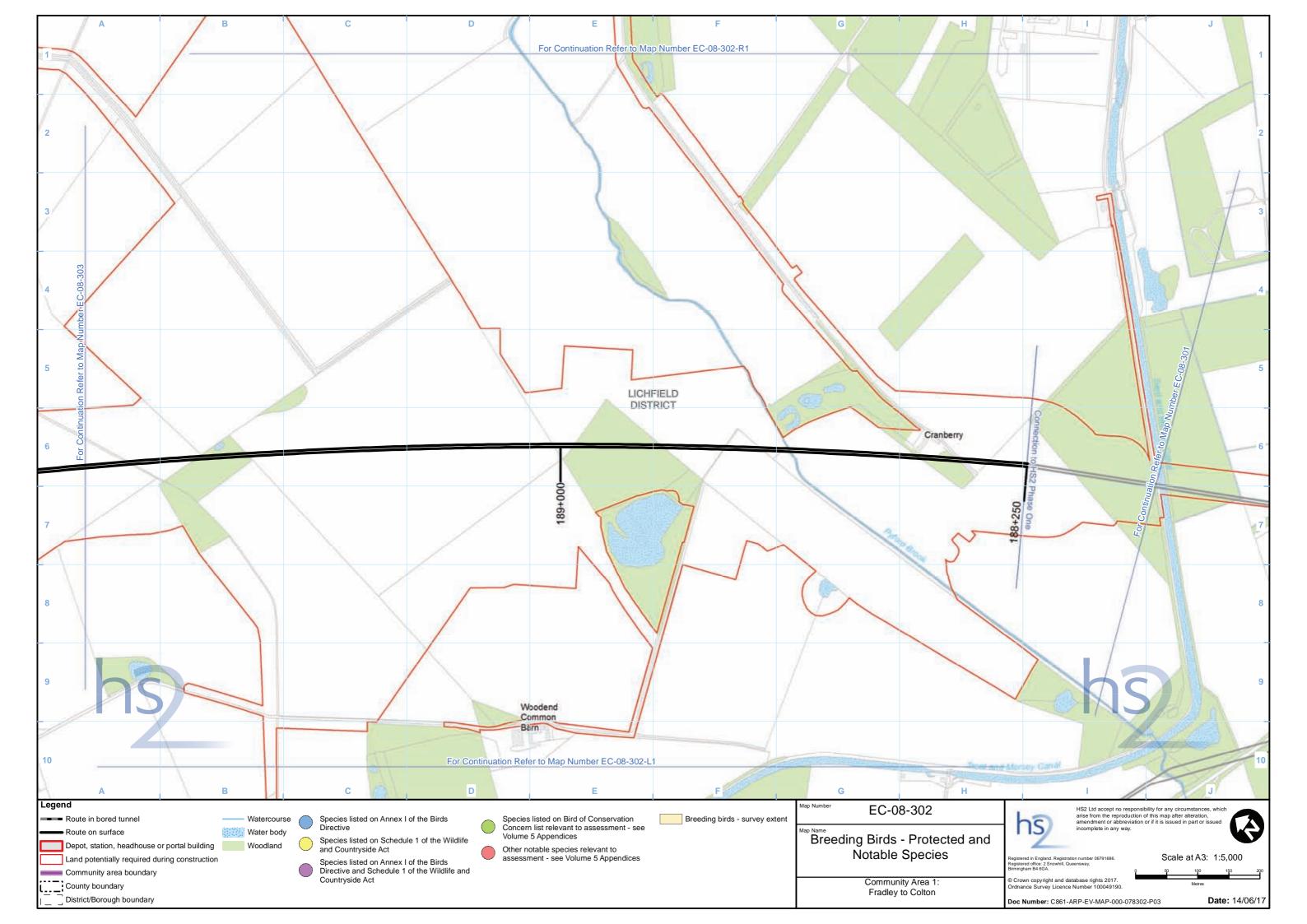


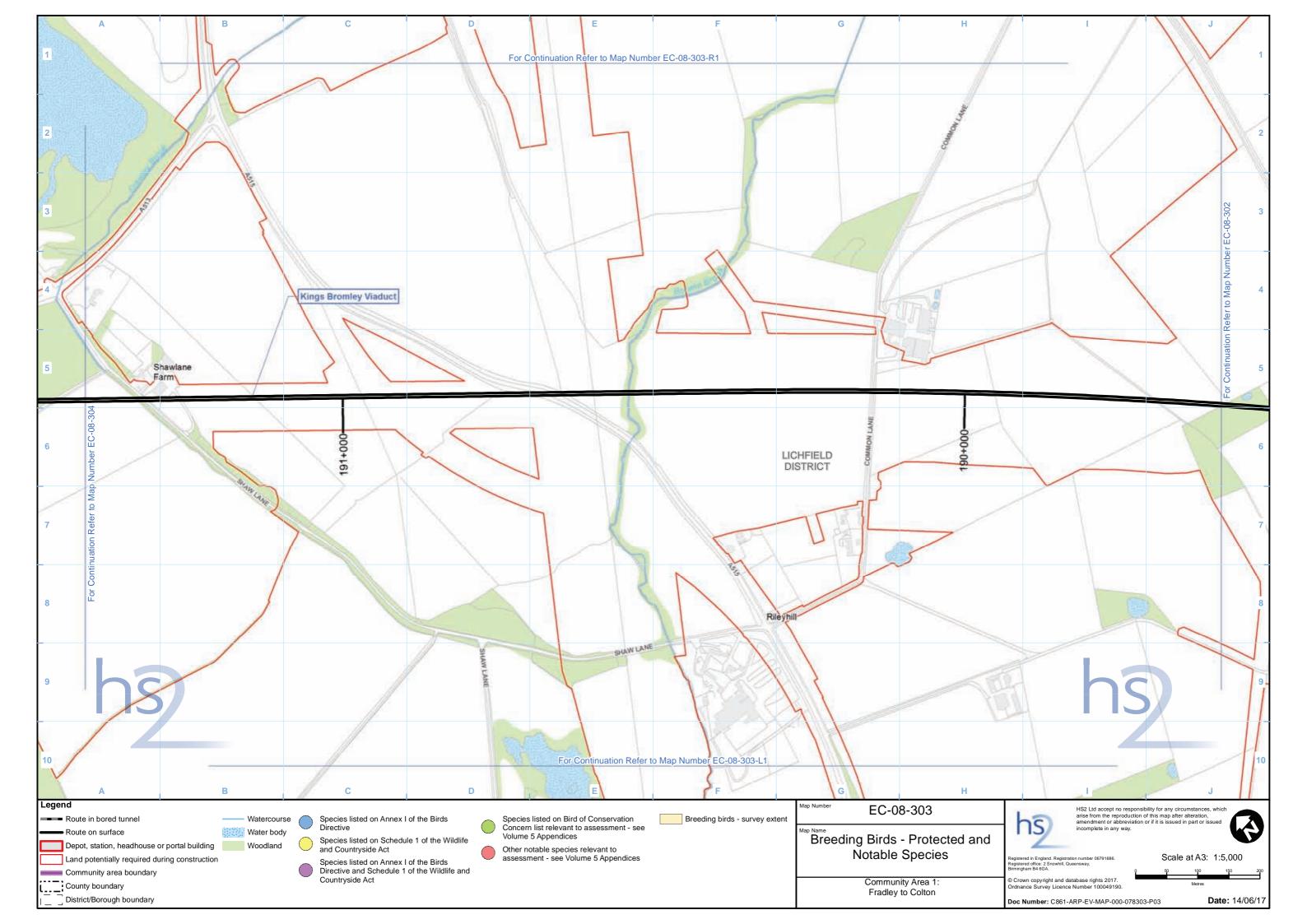


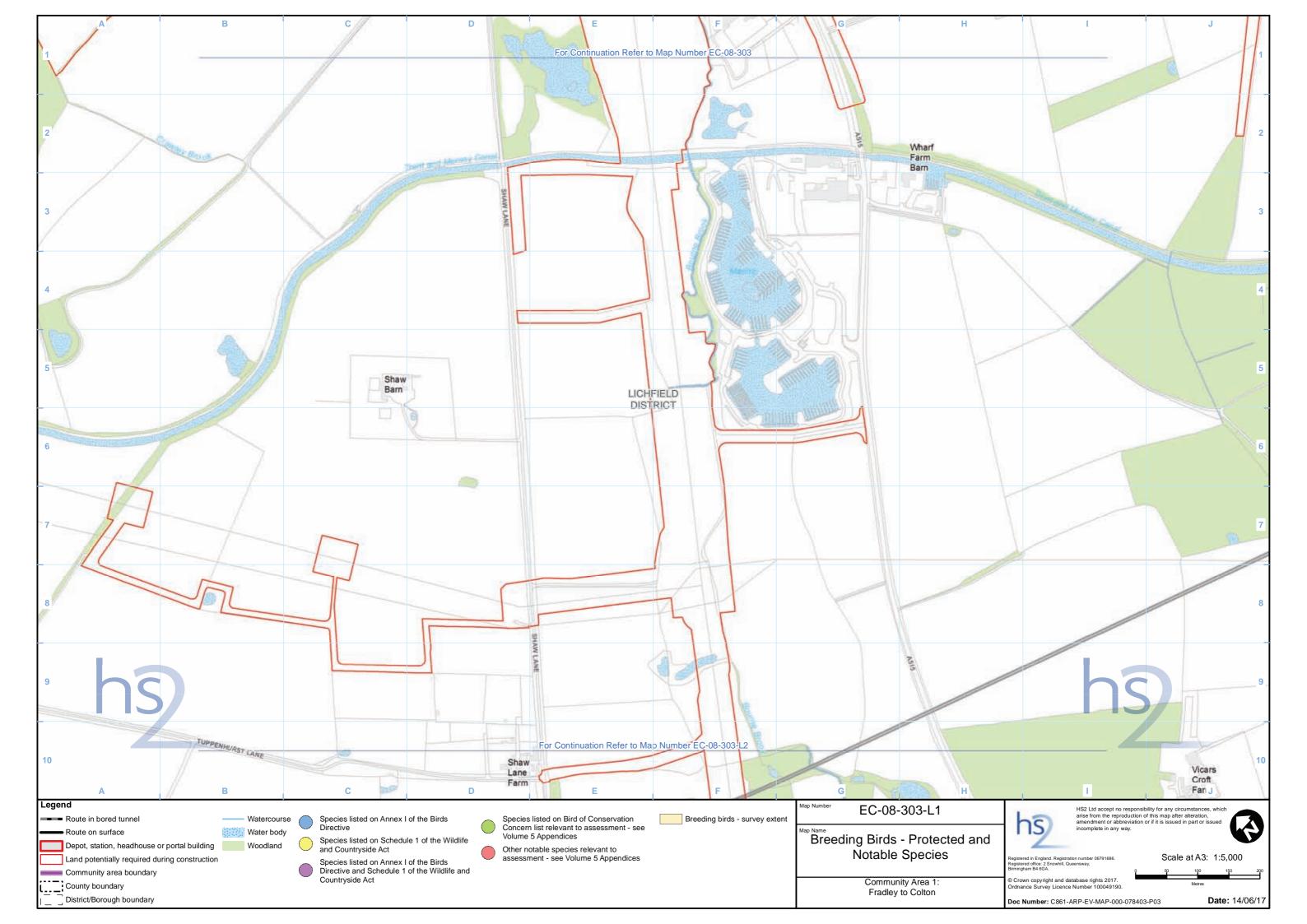
High Speed Two Phase 2a (West Midlands-Crewe)
Background Information and Data
EC-08 - Breeding Birds - Protected and Notable Species

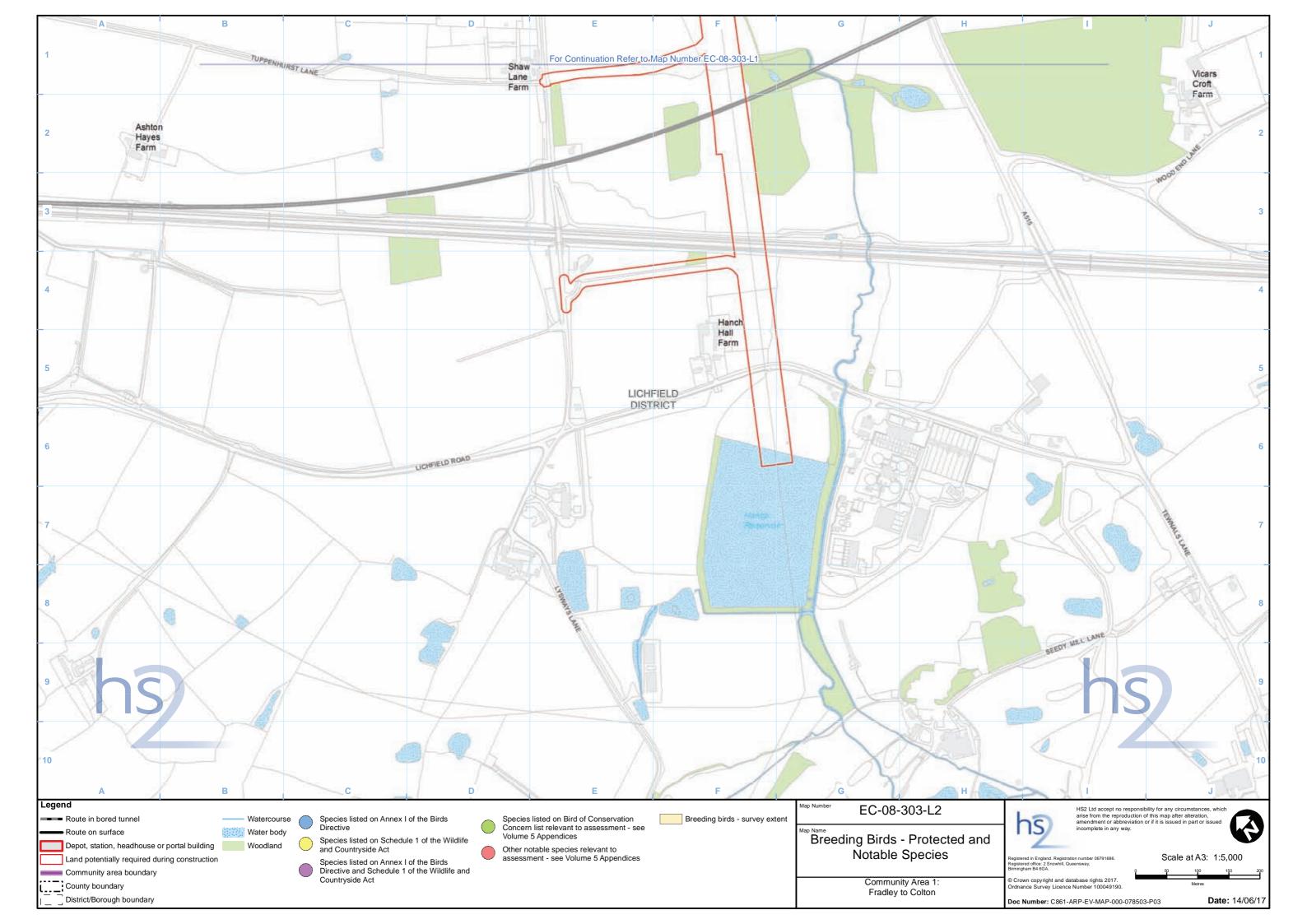


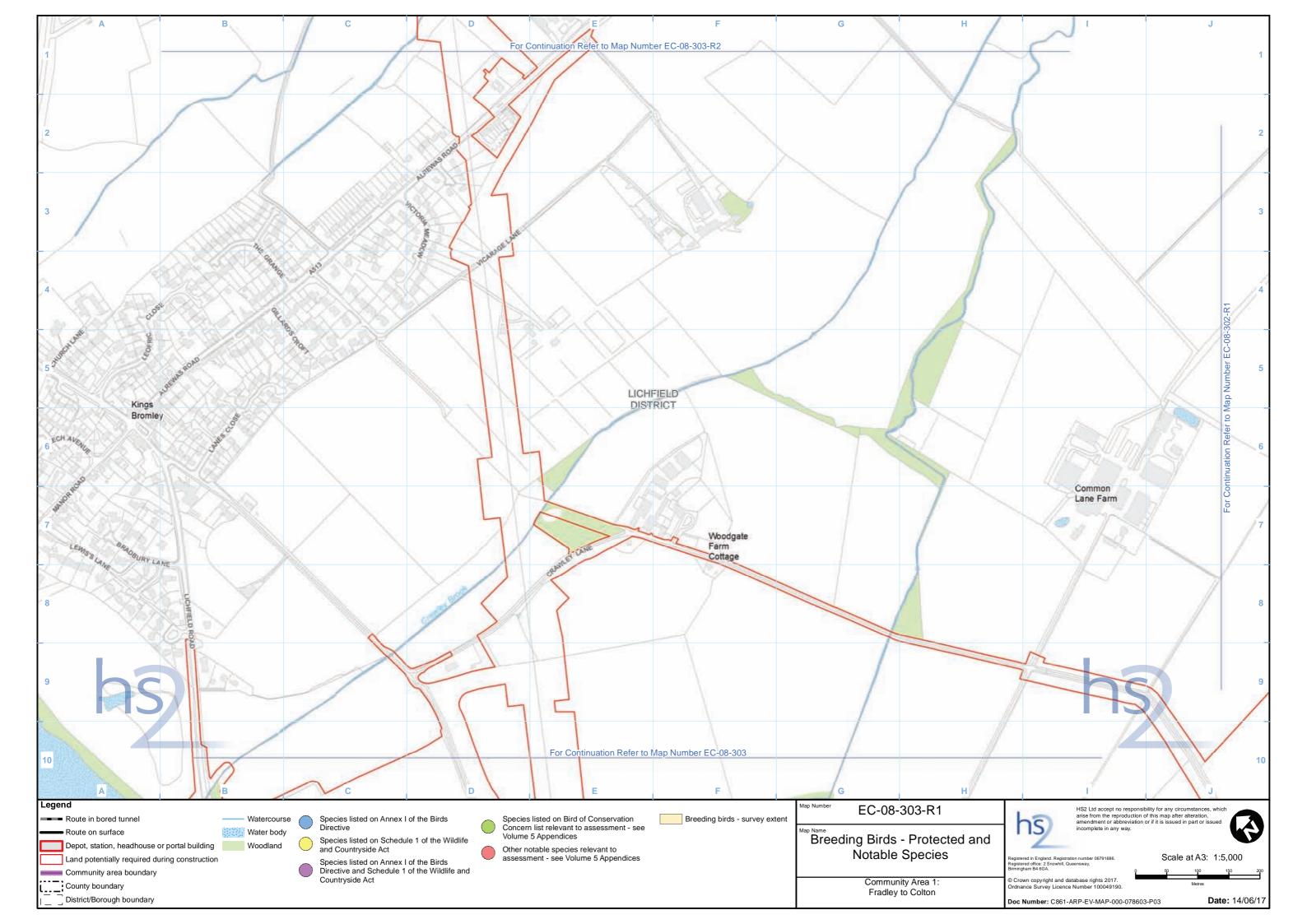


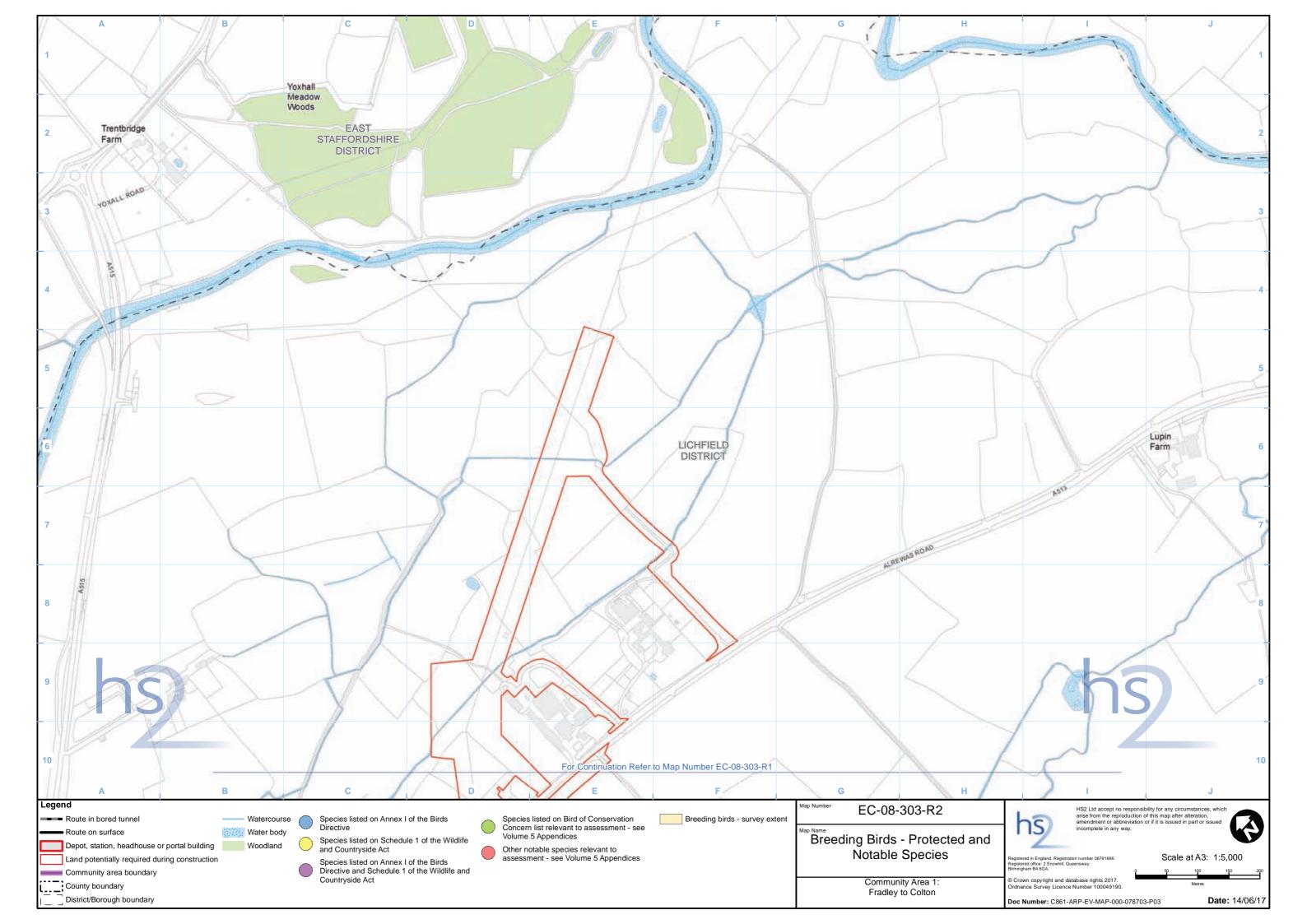


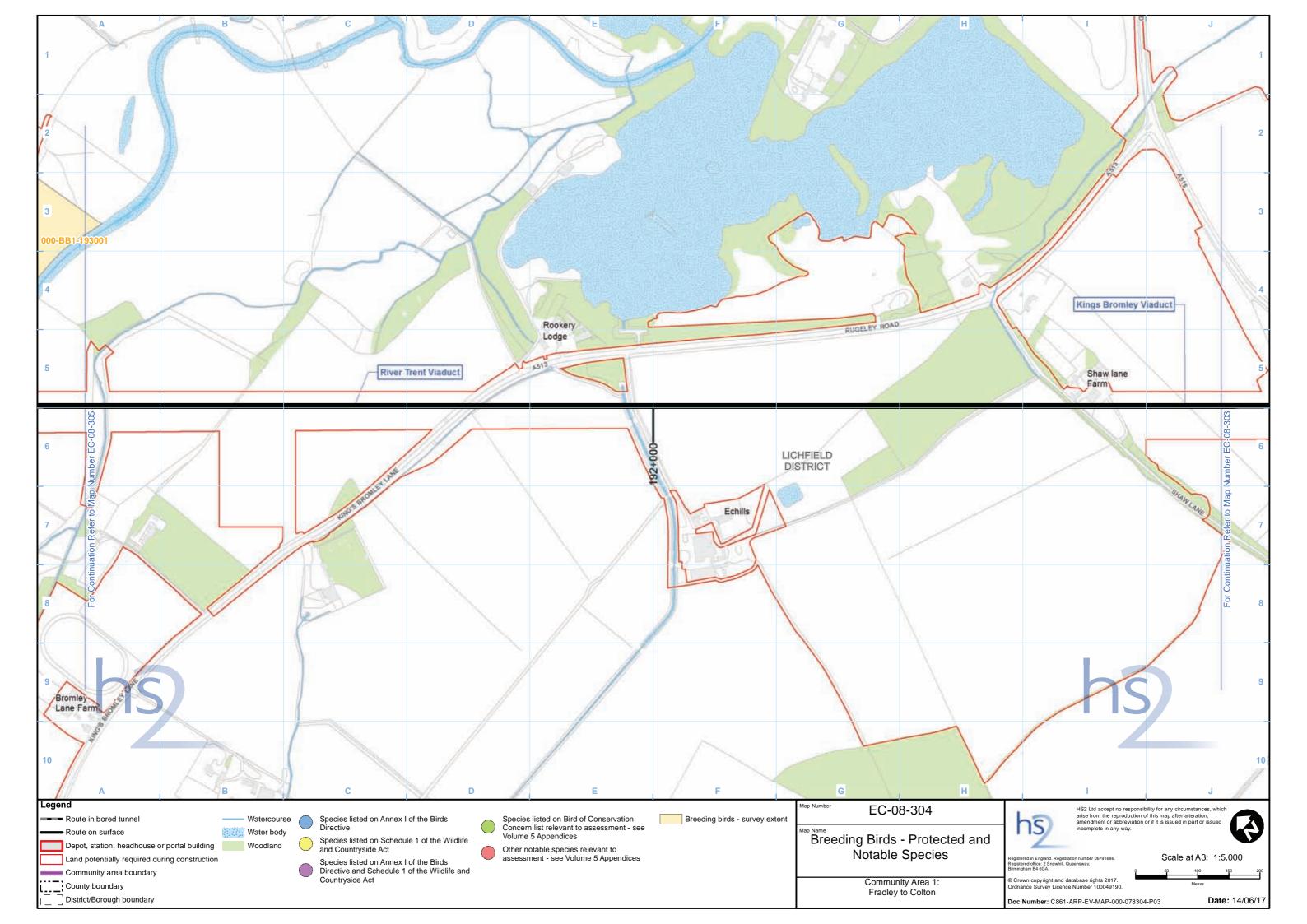


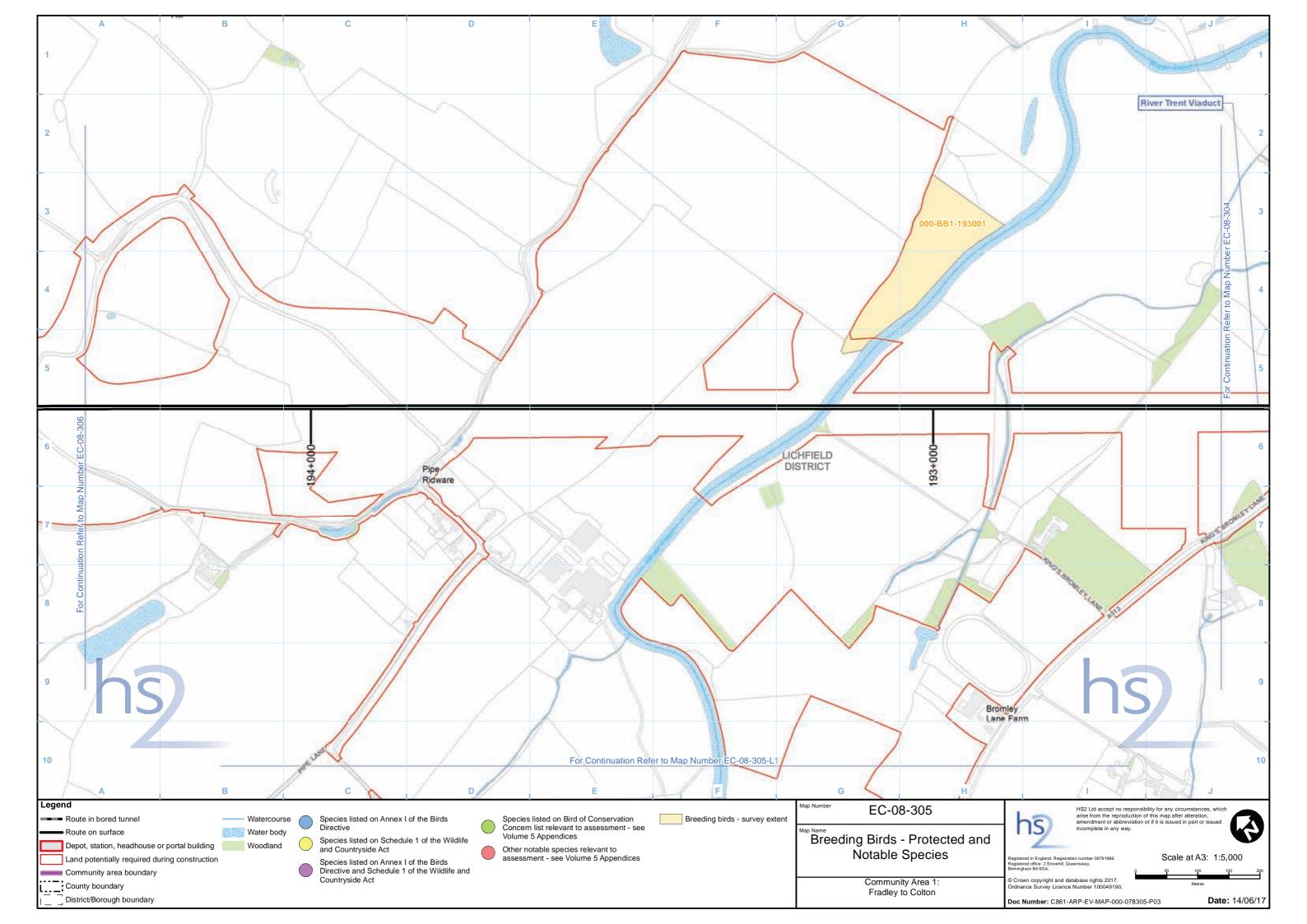


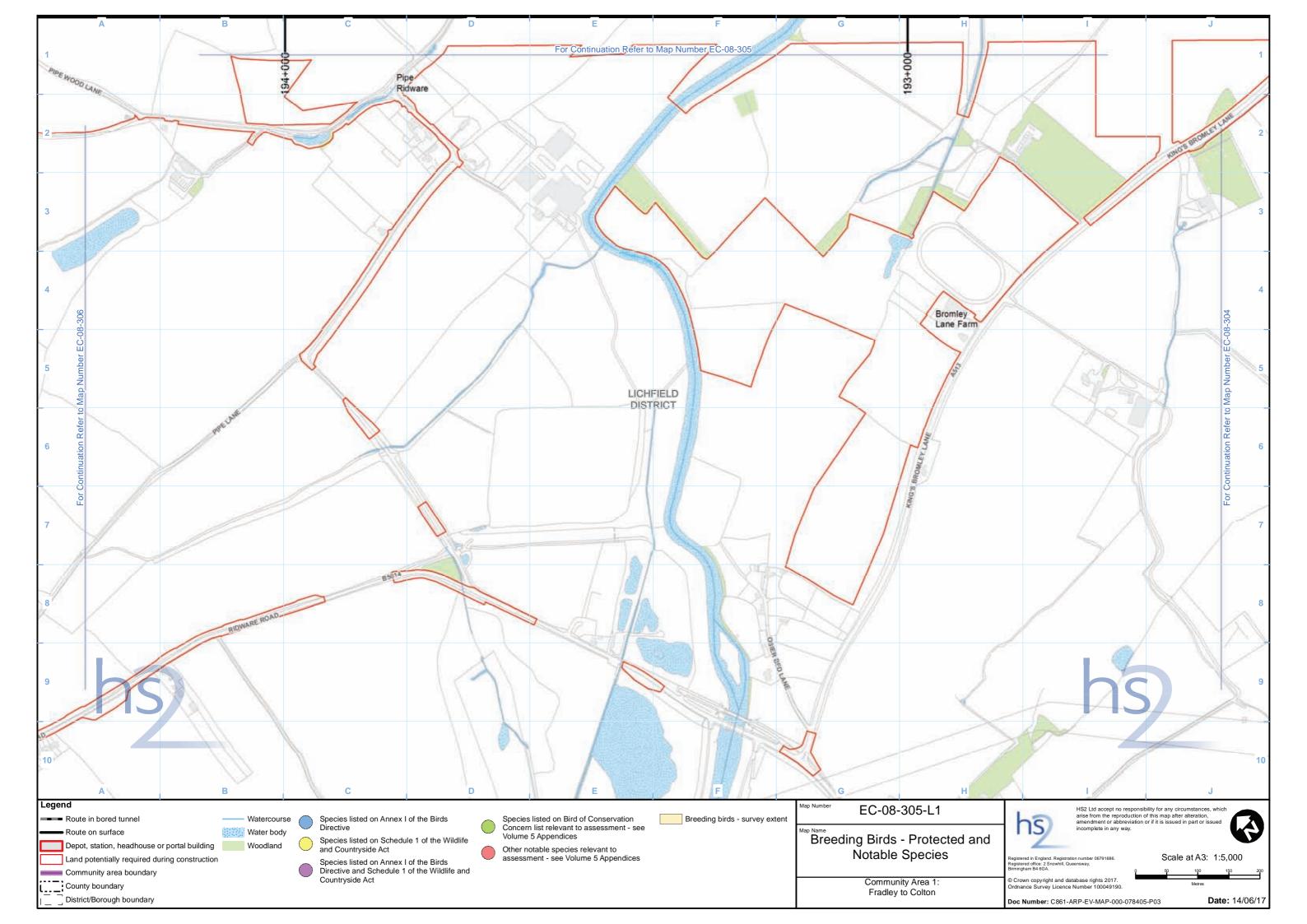


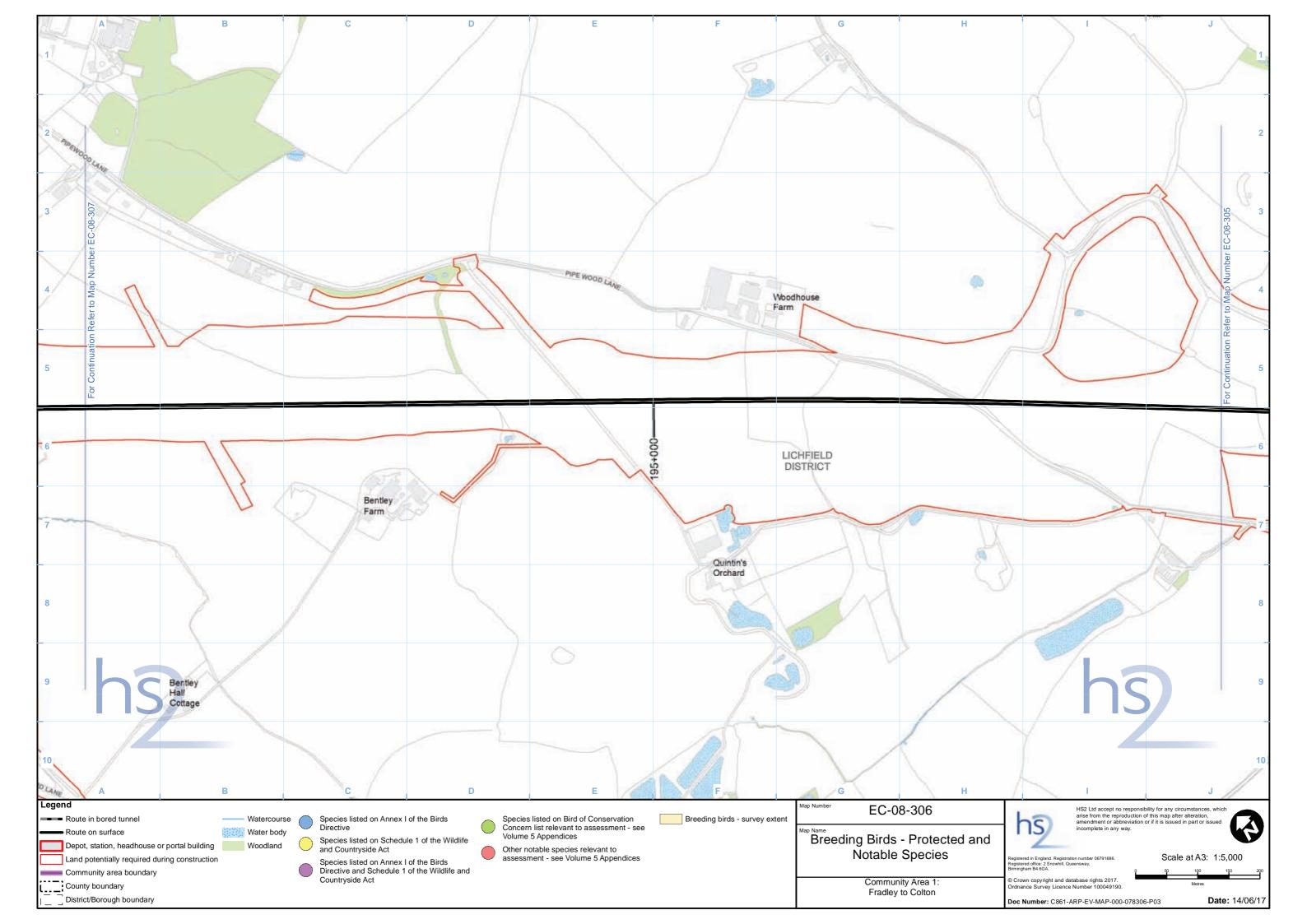


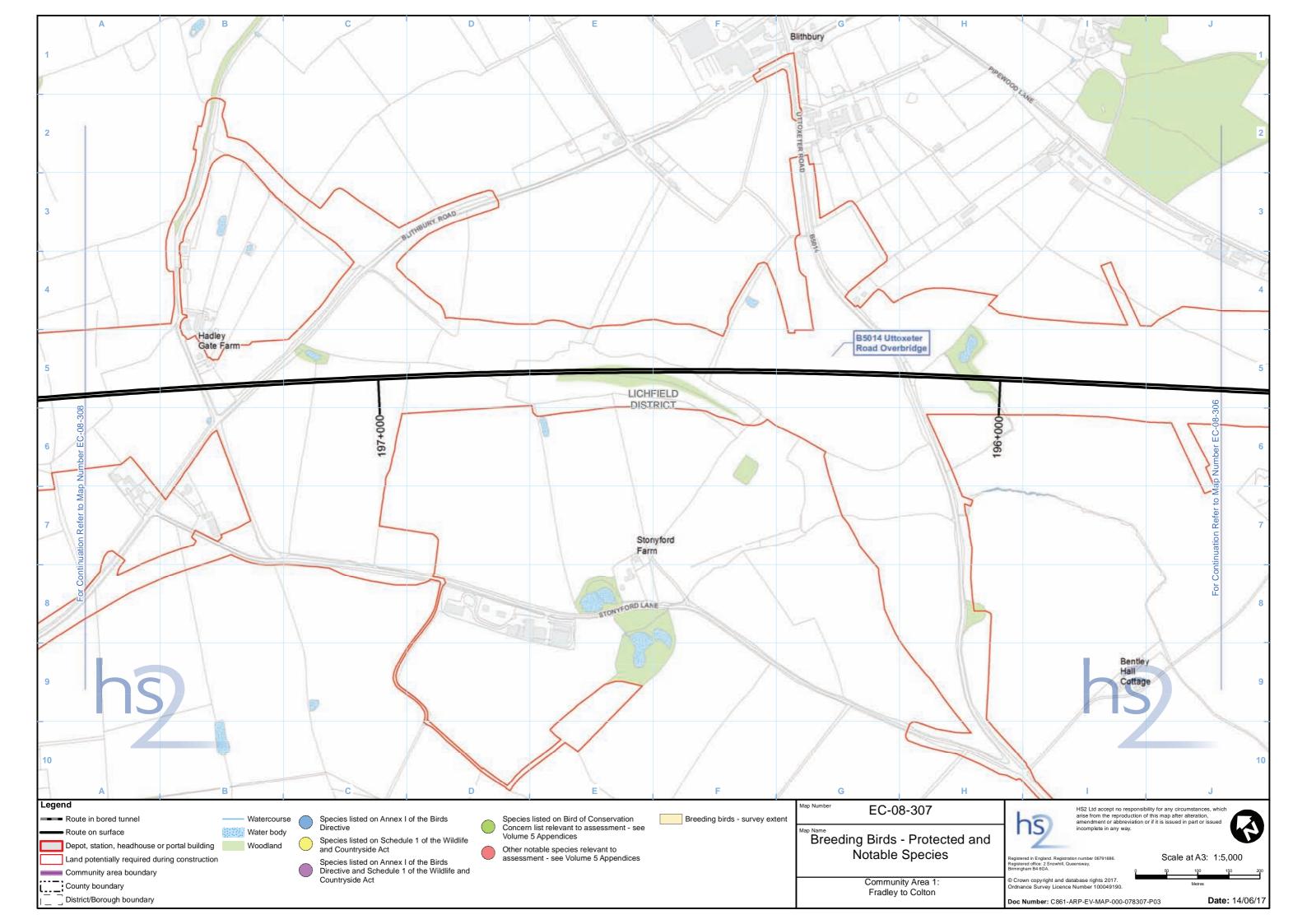


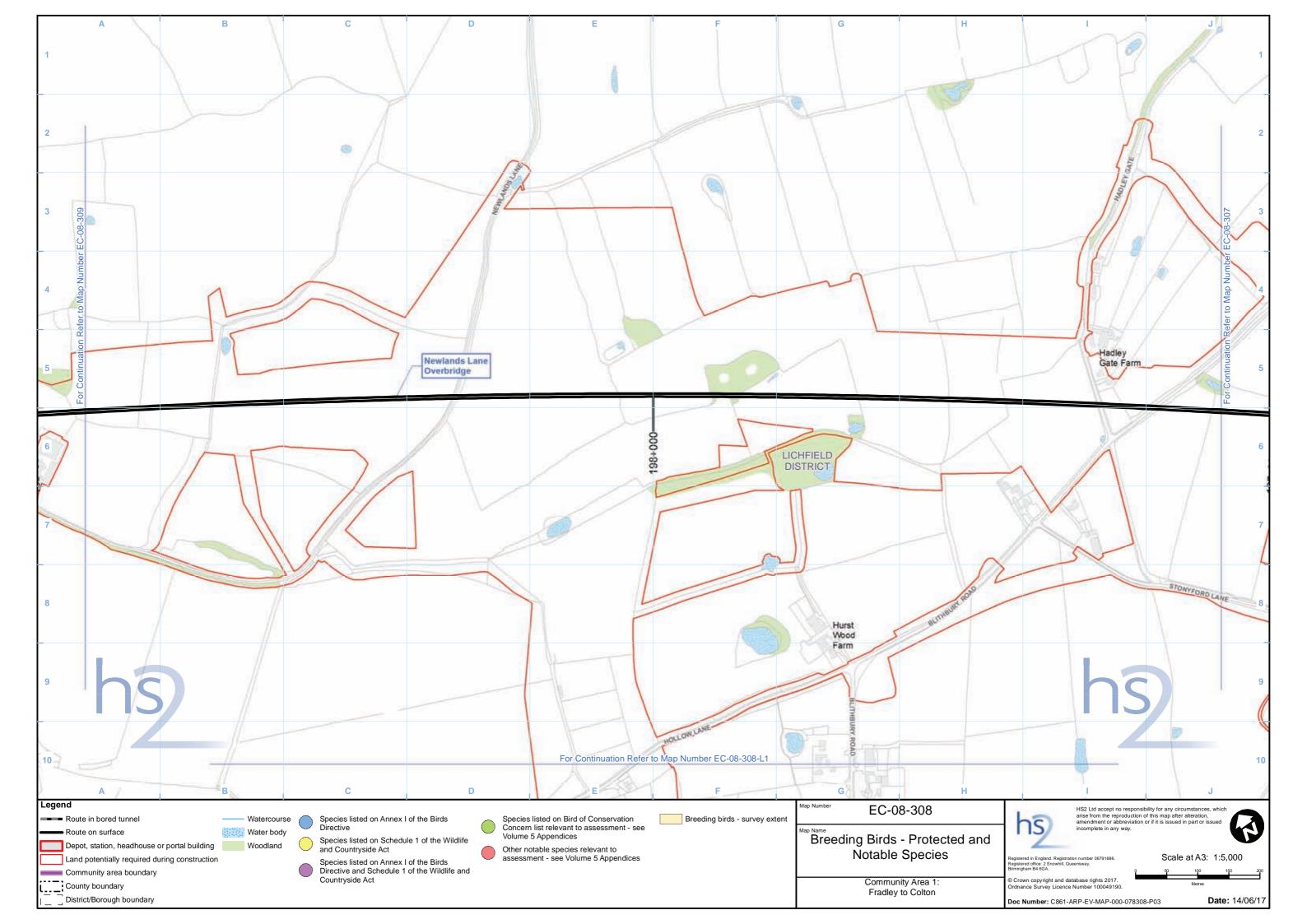


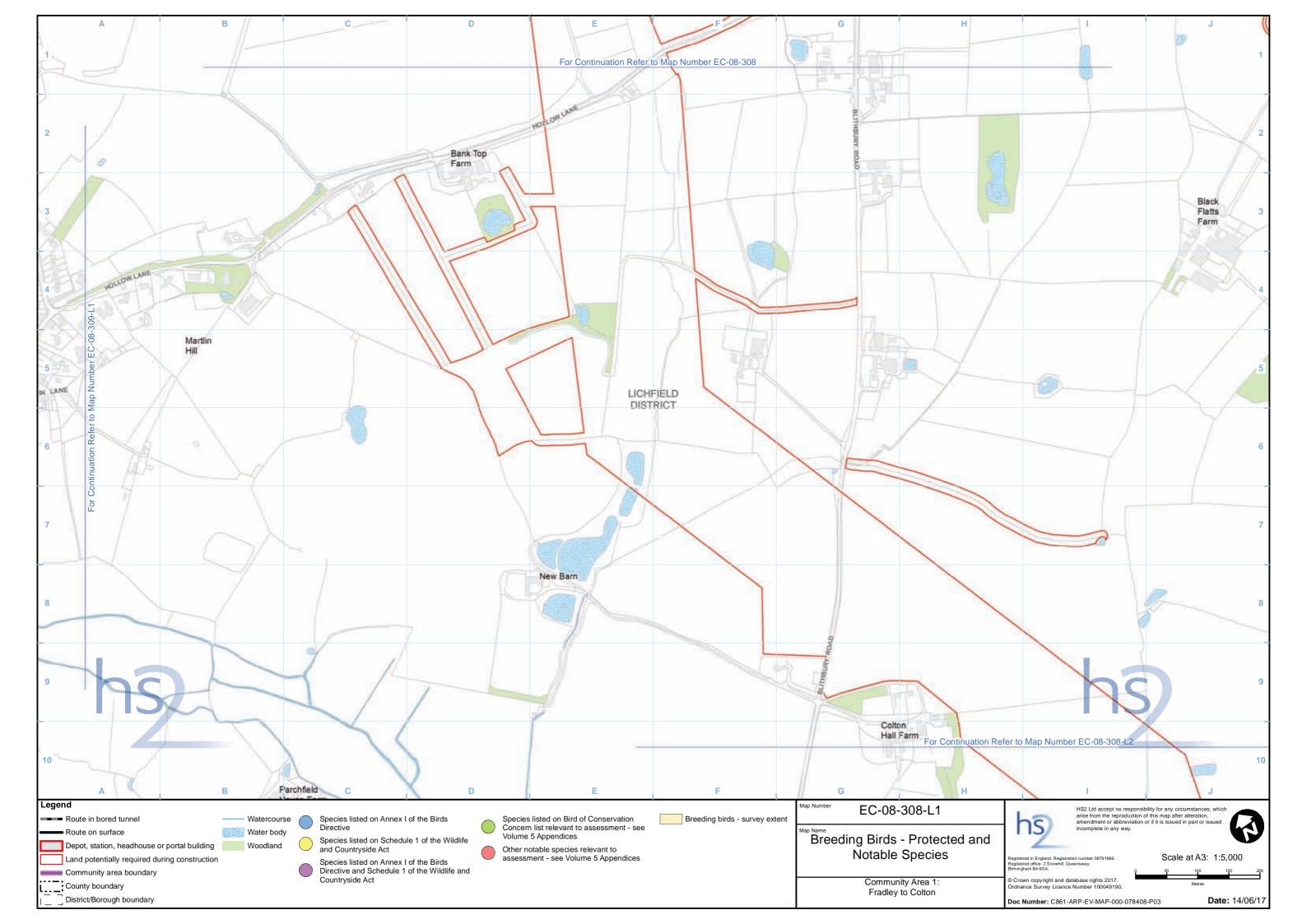


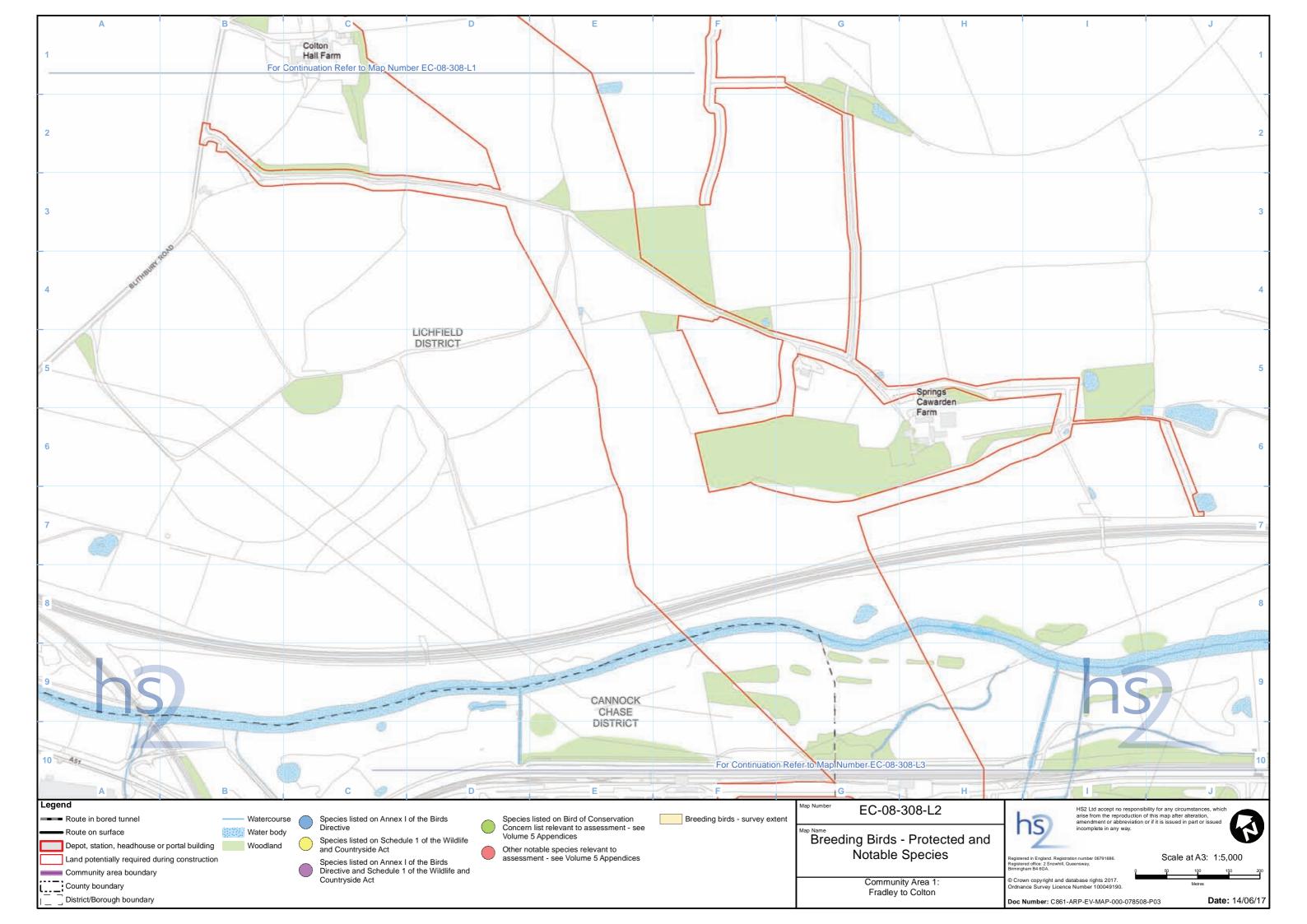


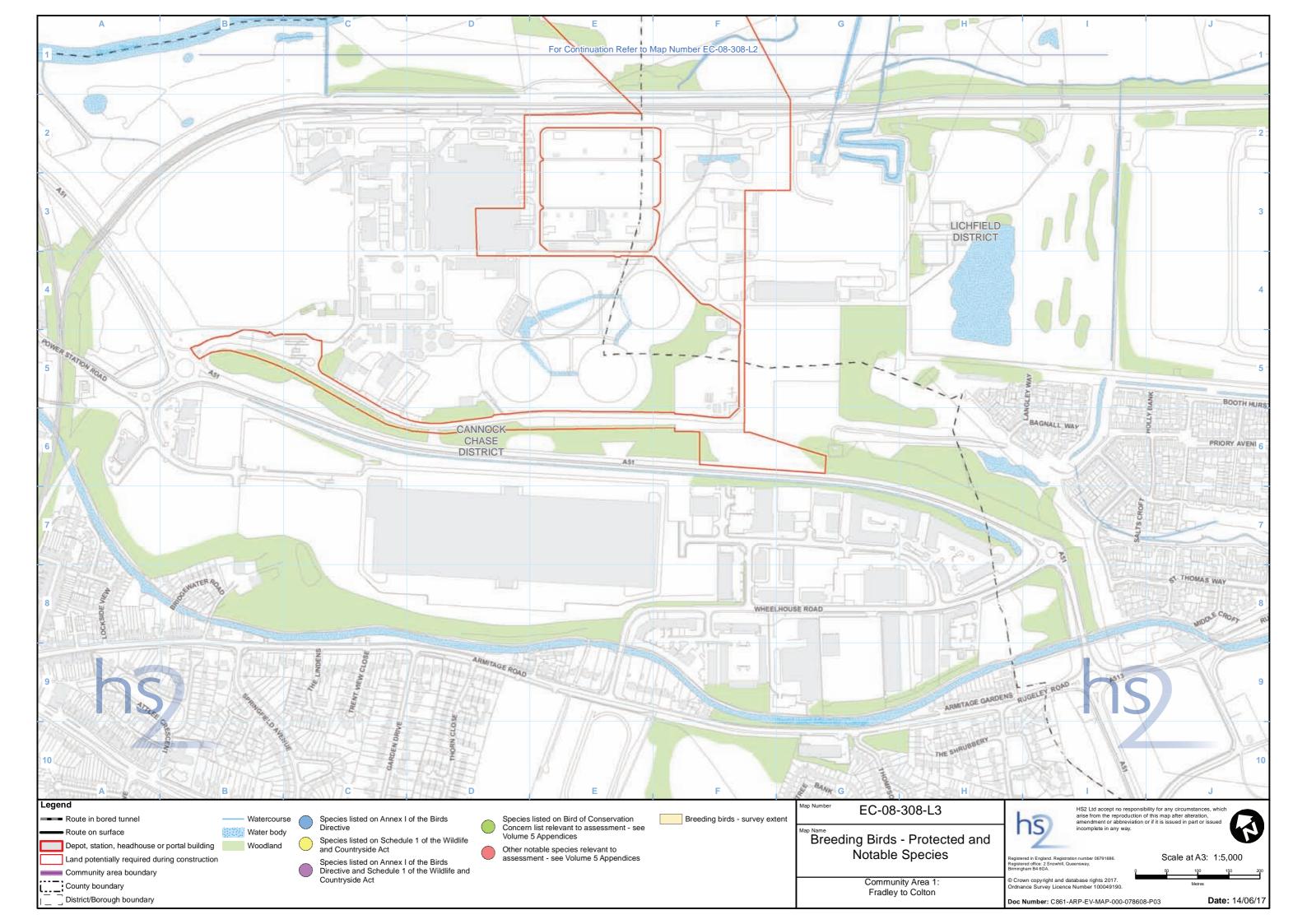


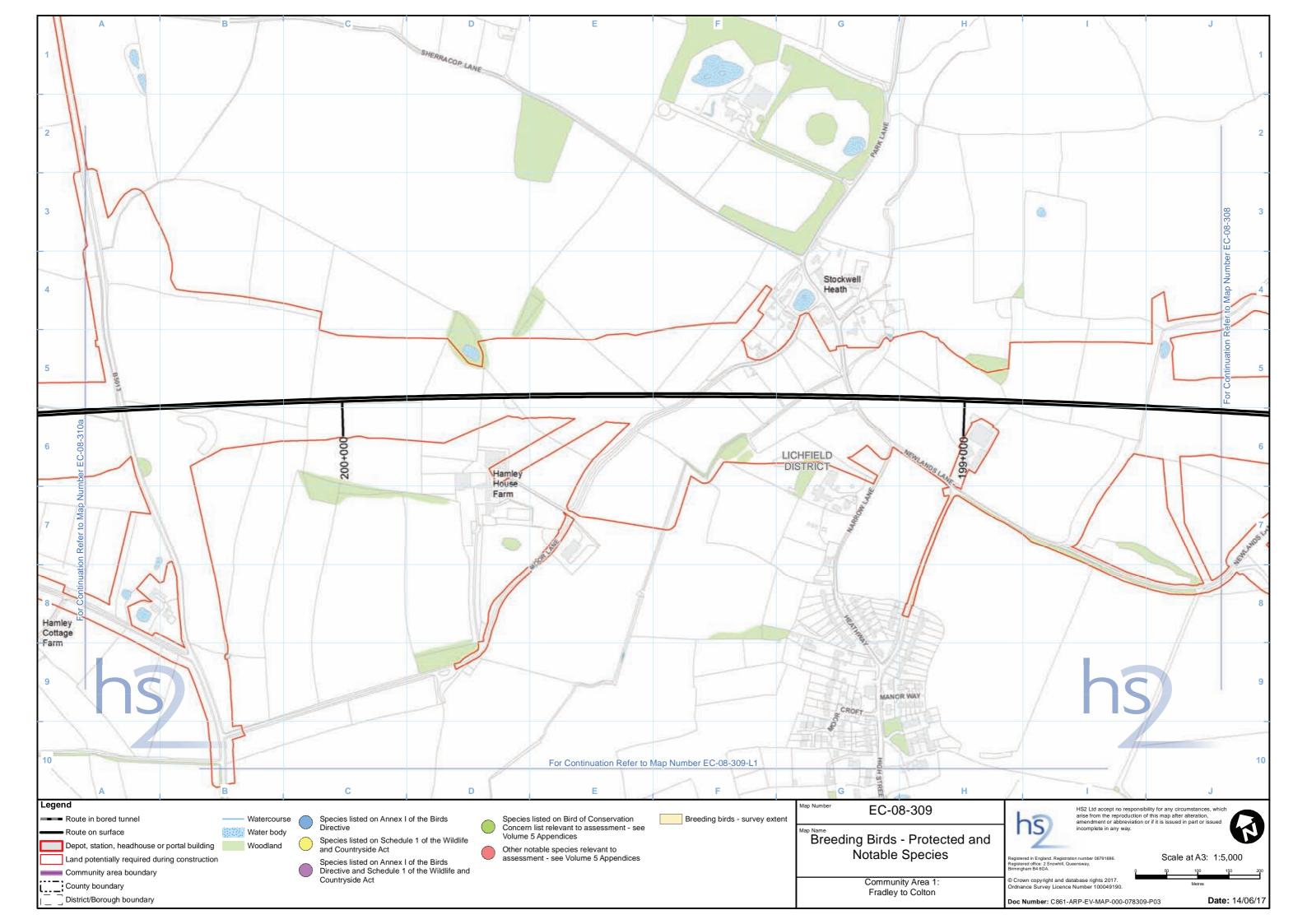


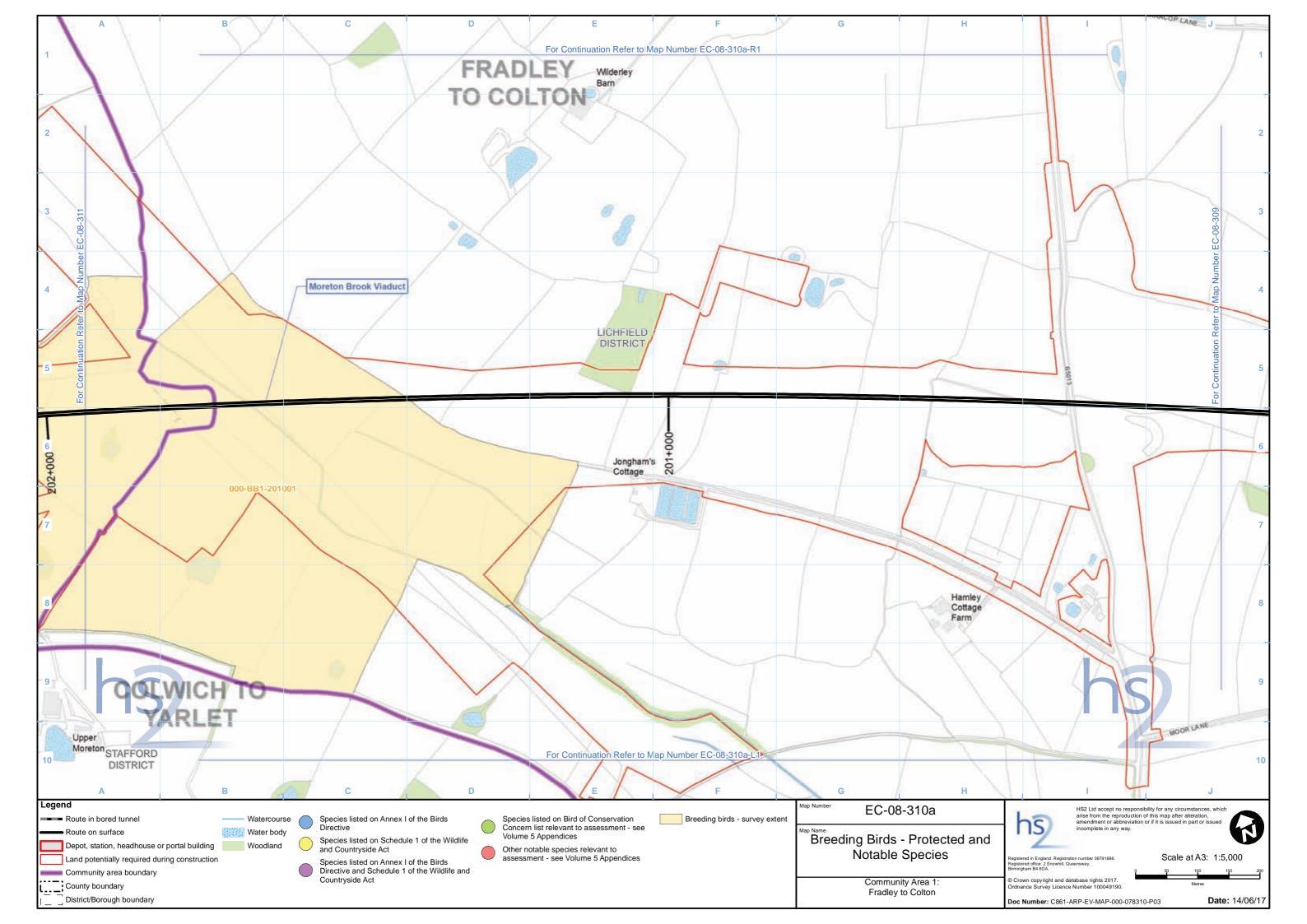


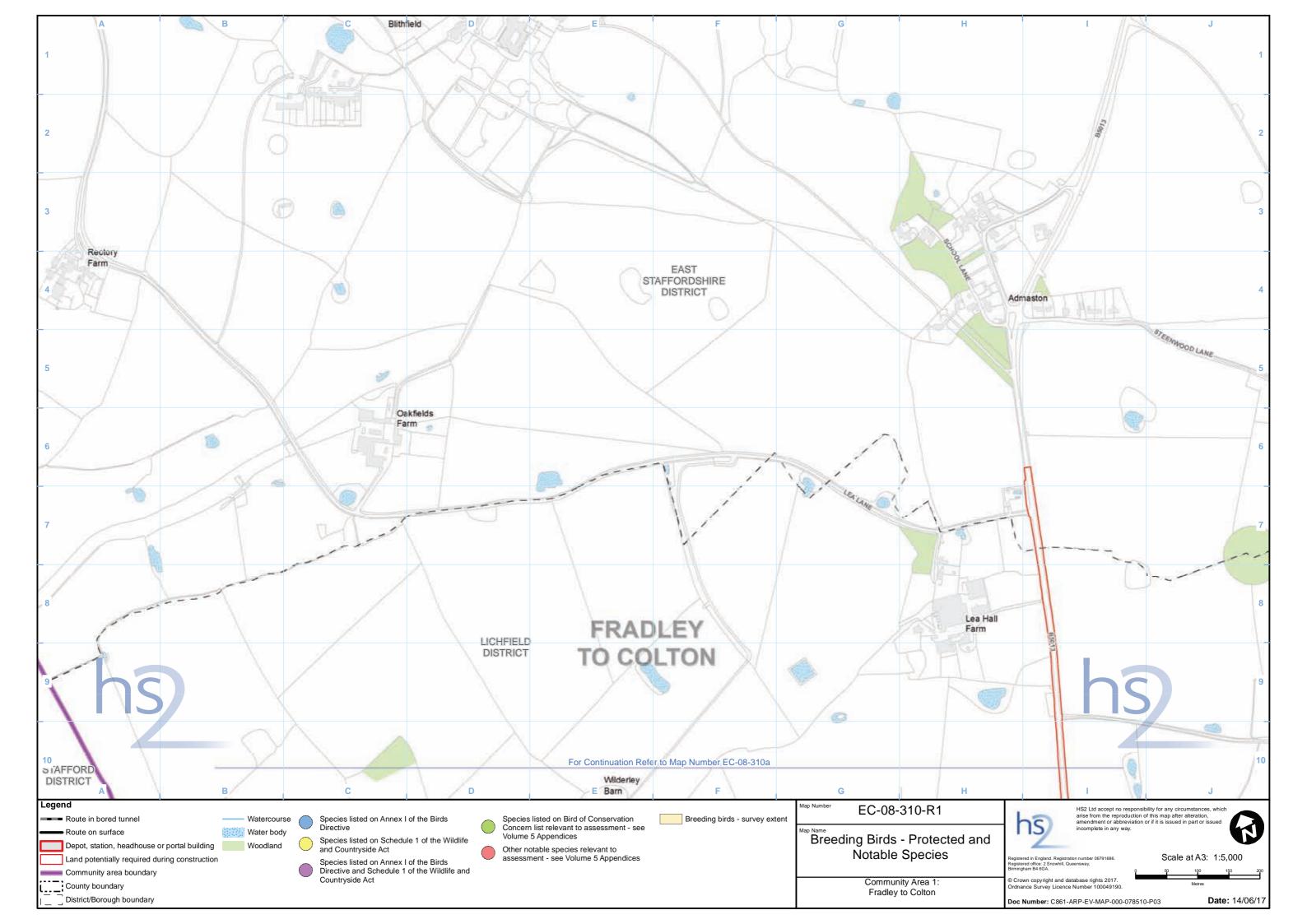


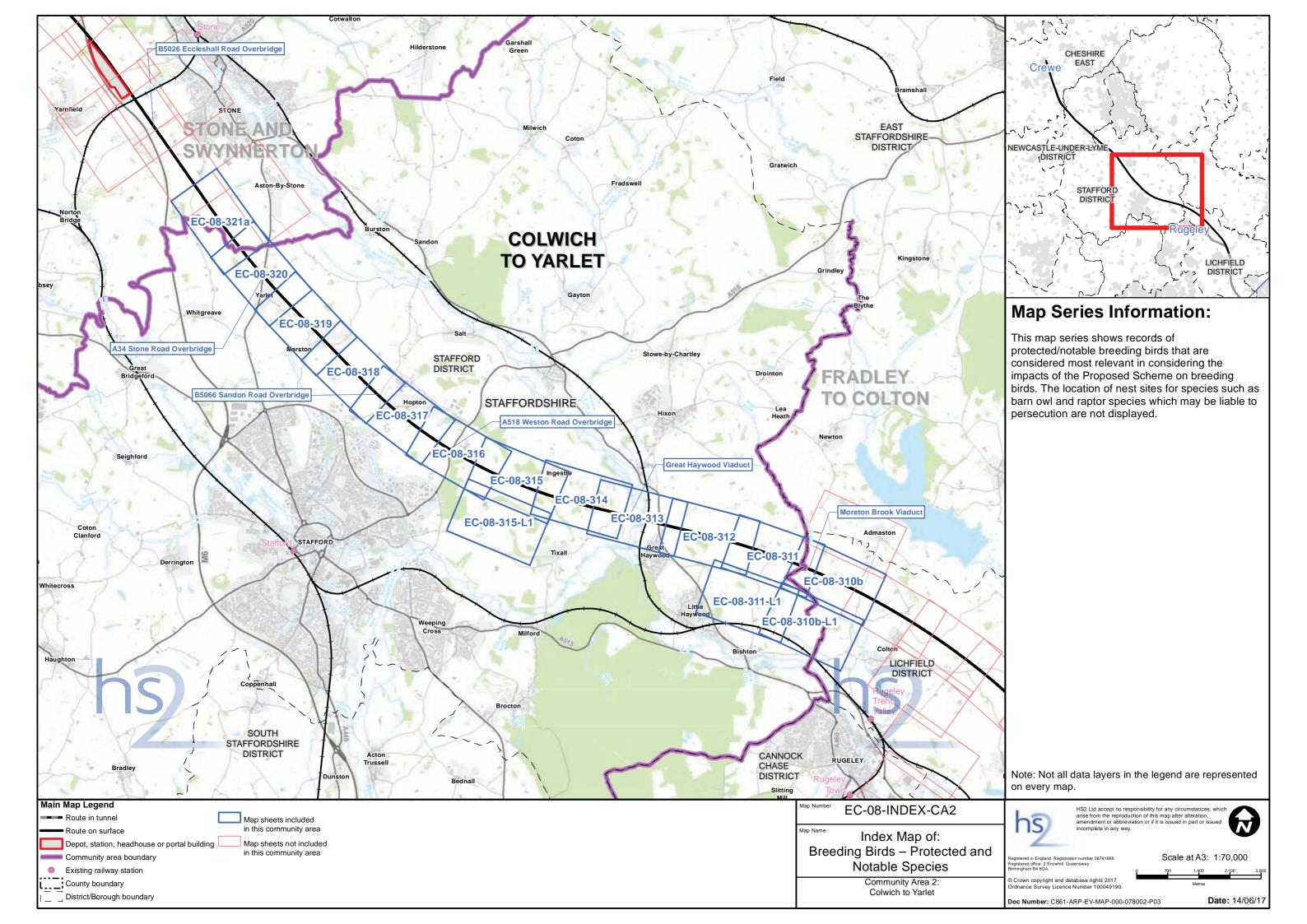


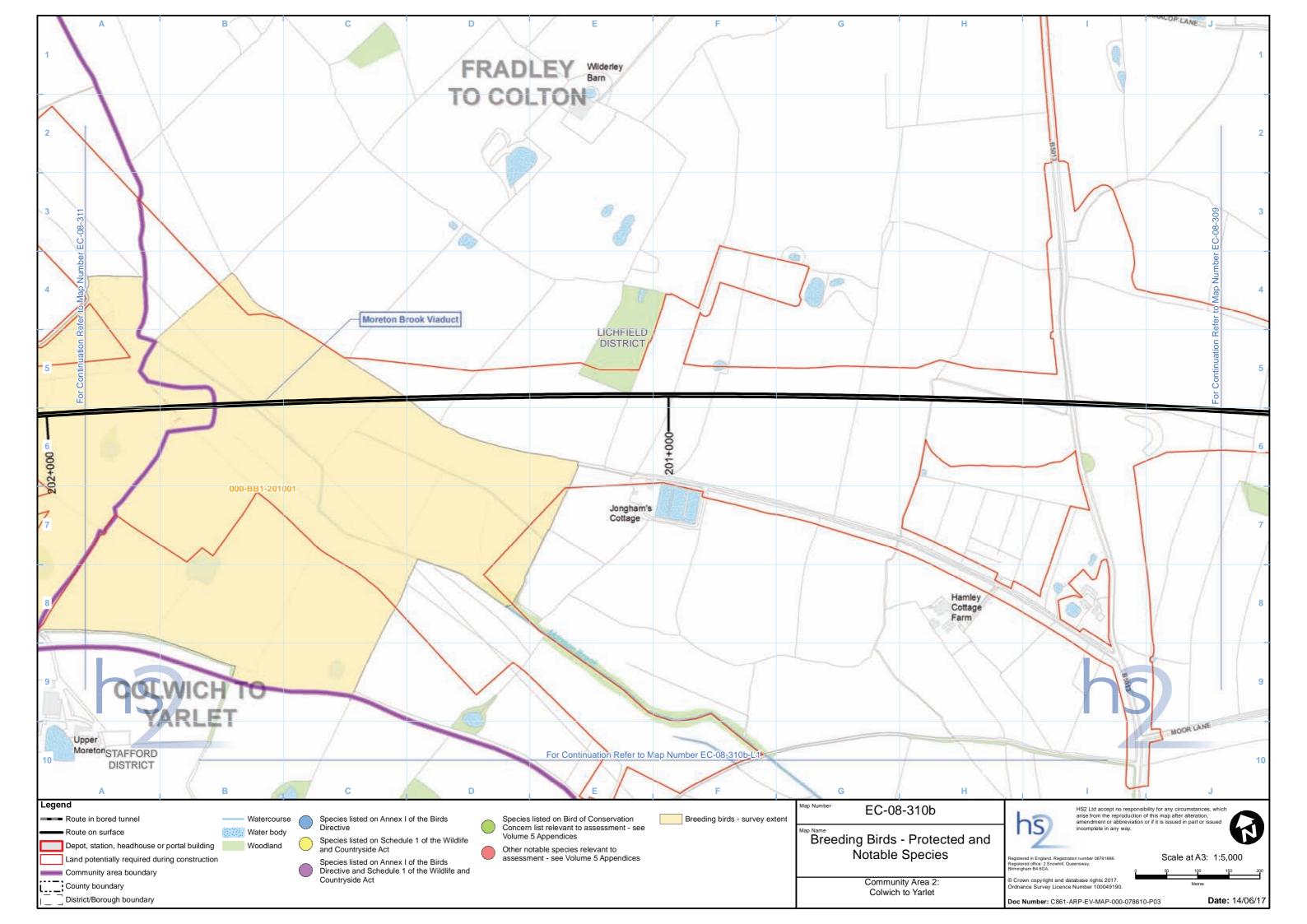


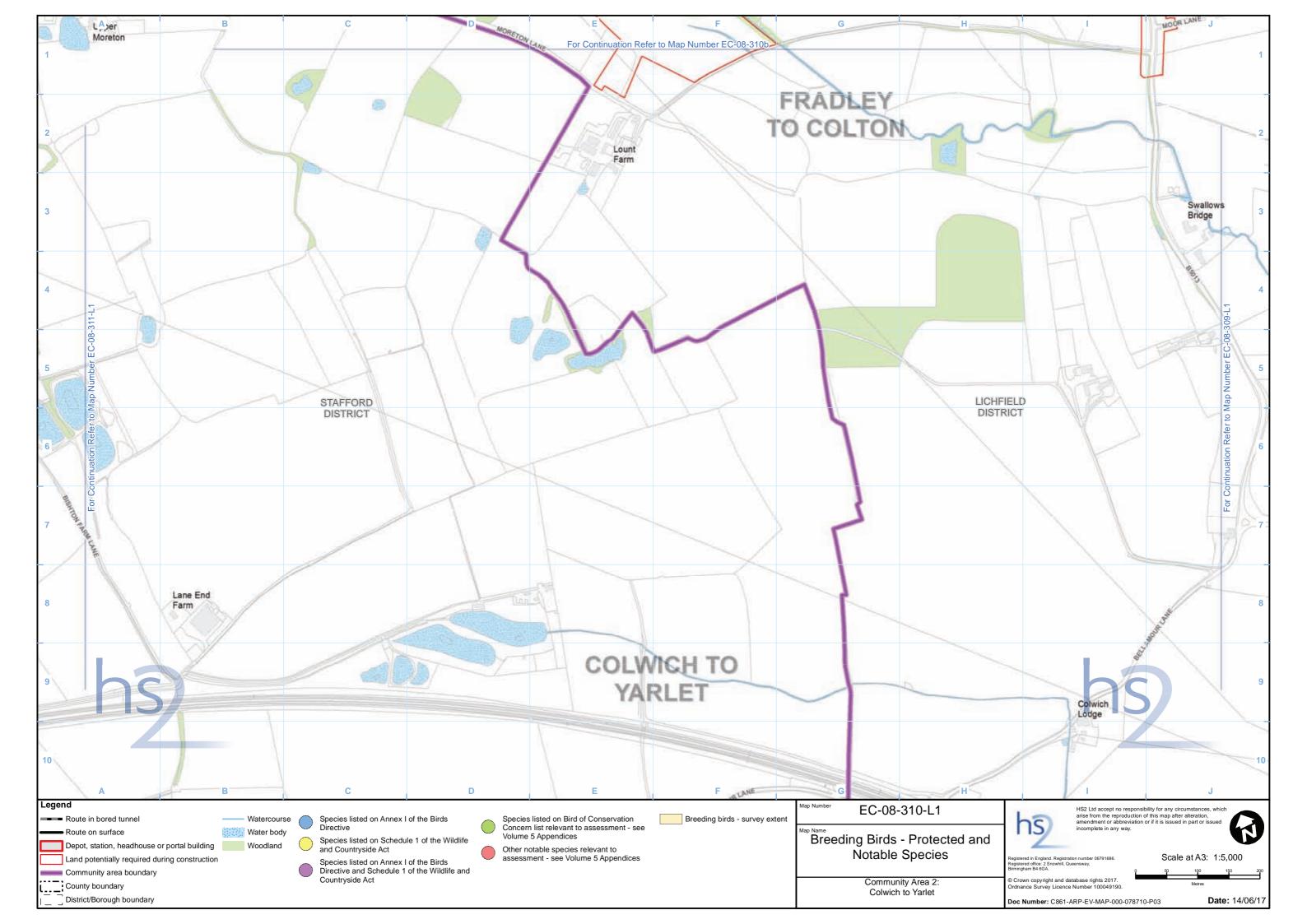


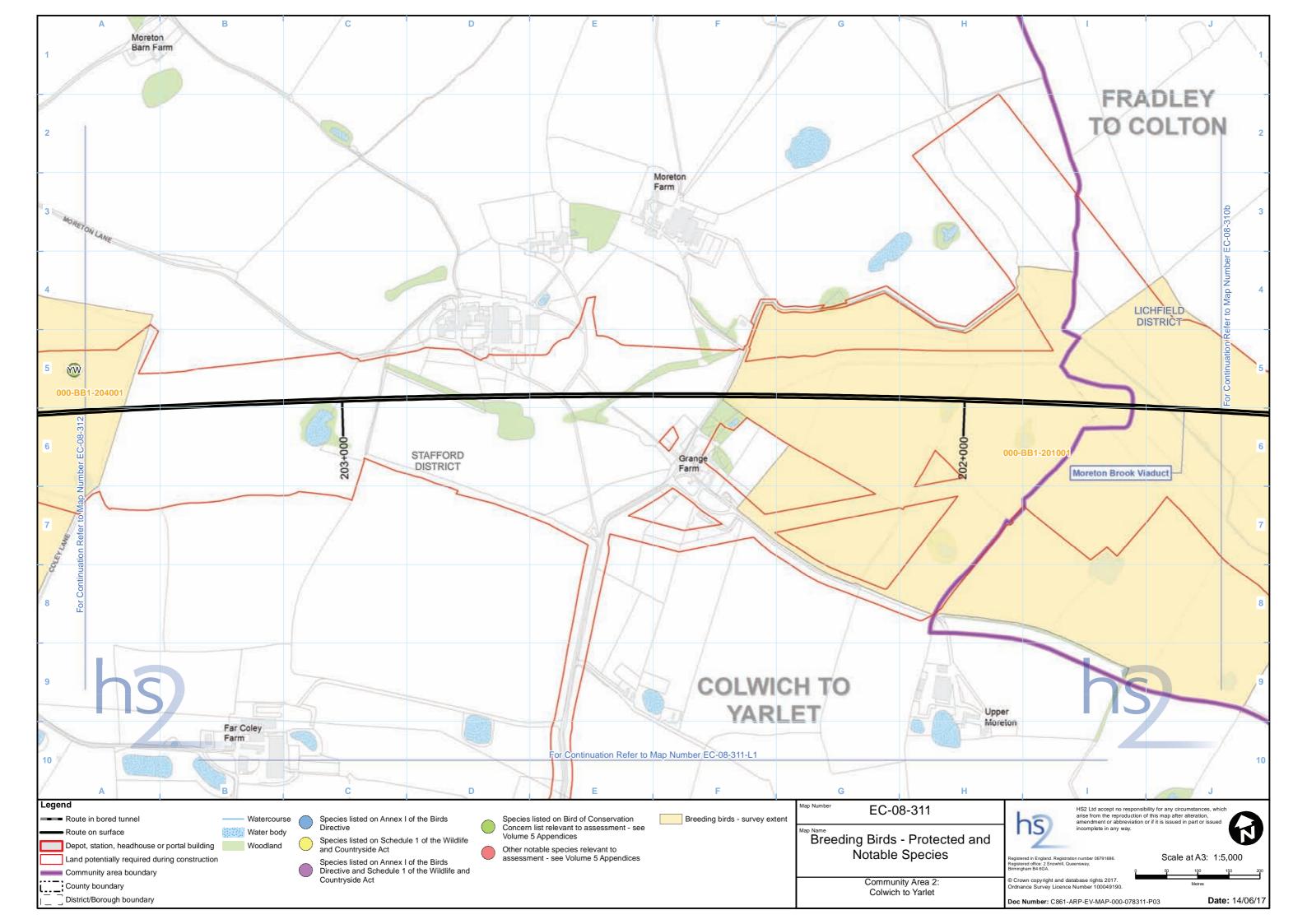


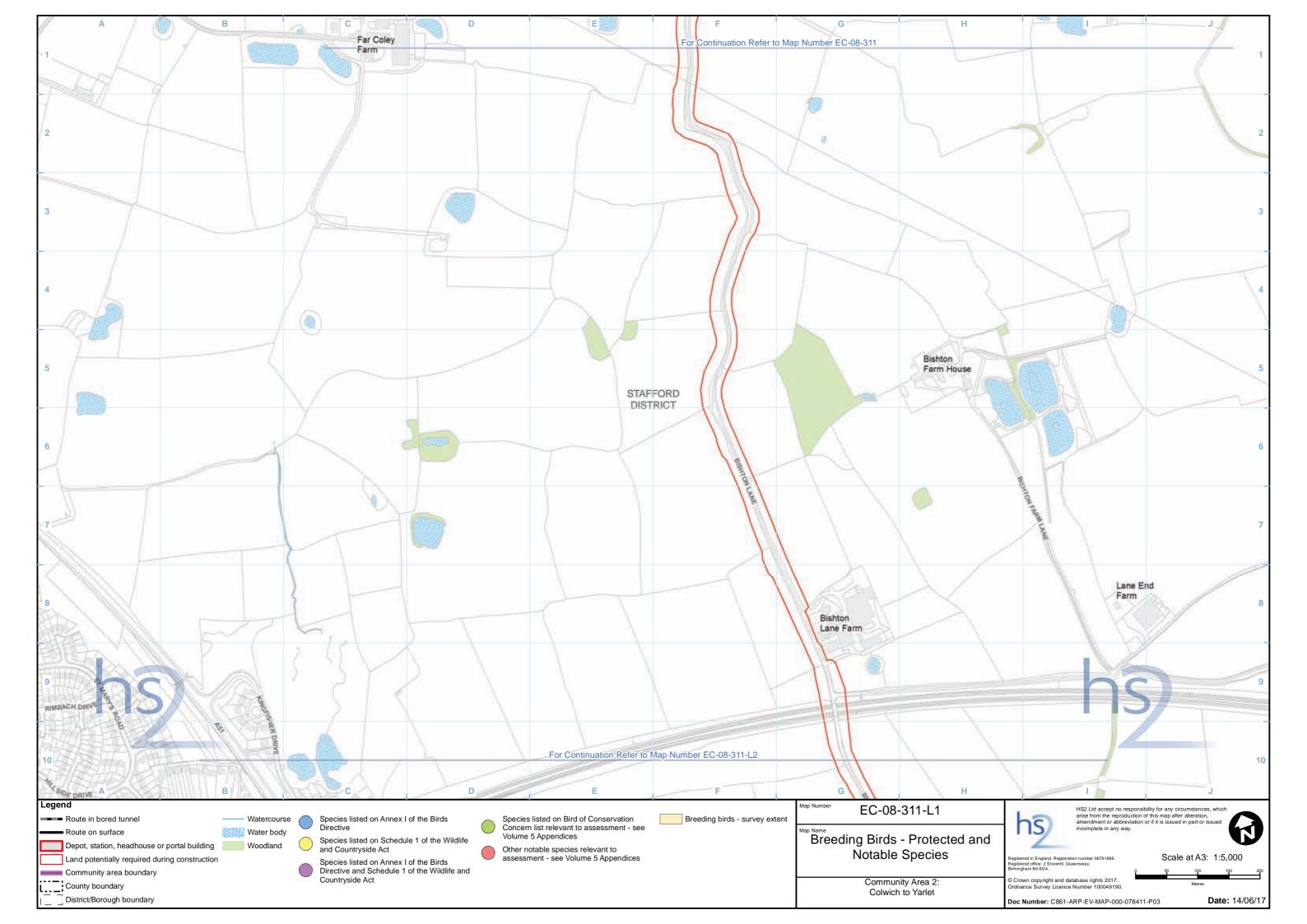


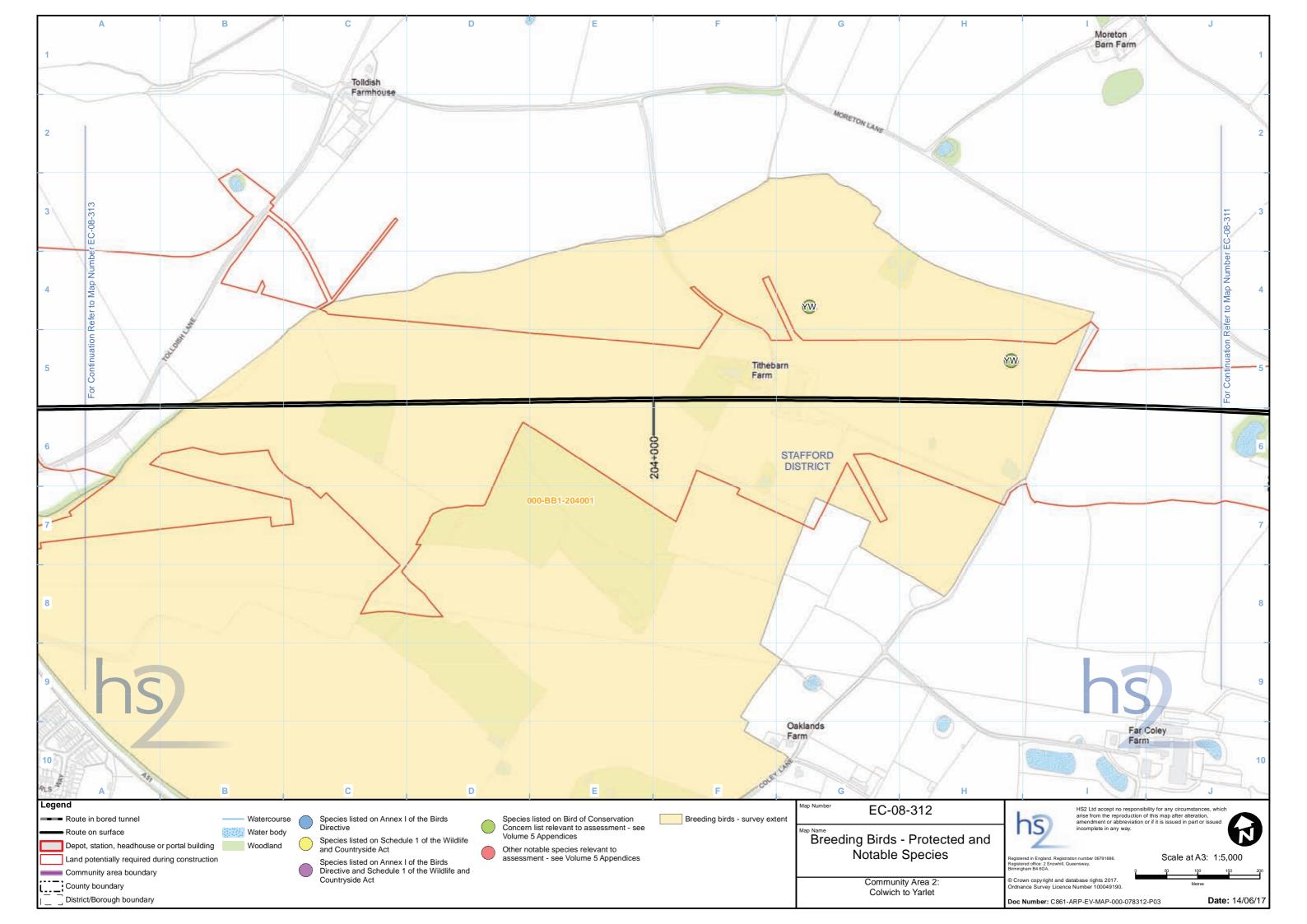


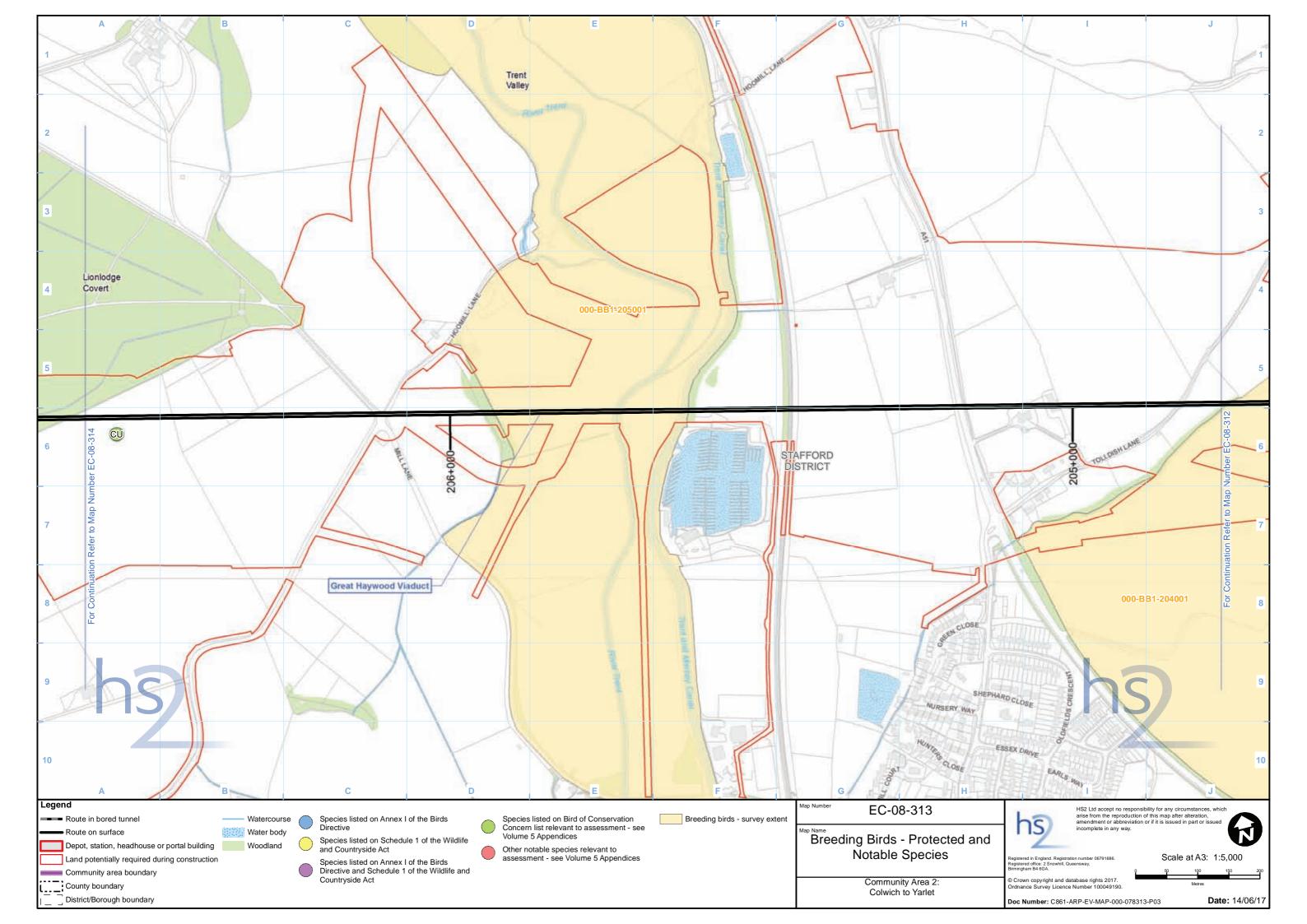


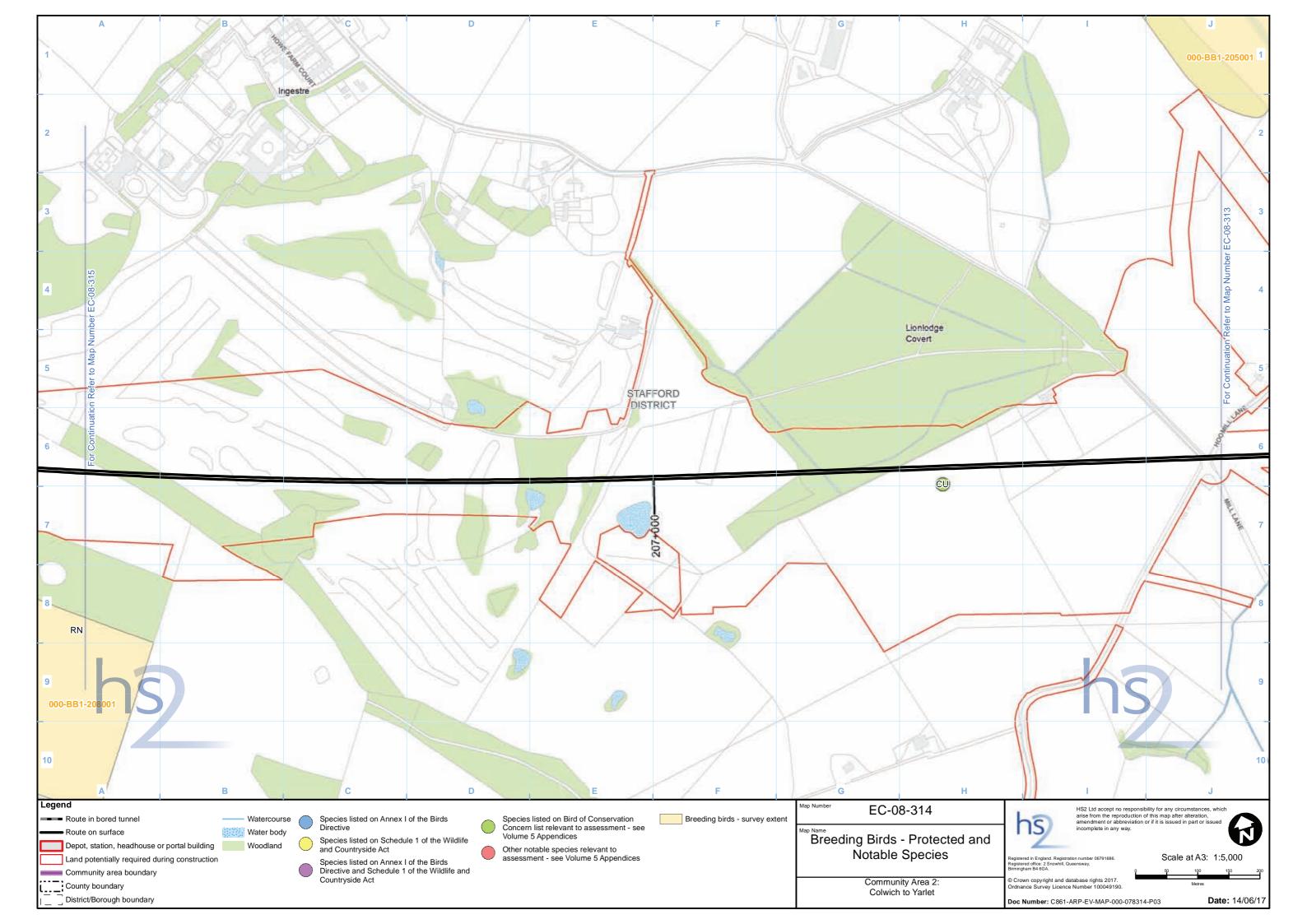


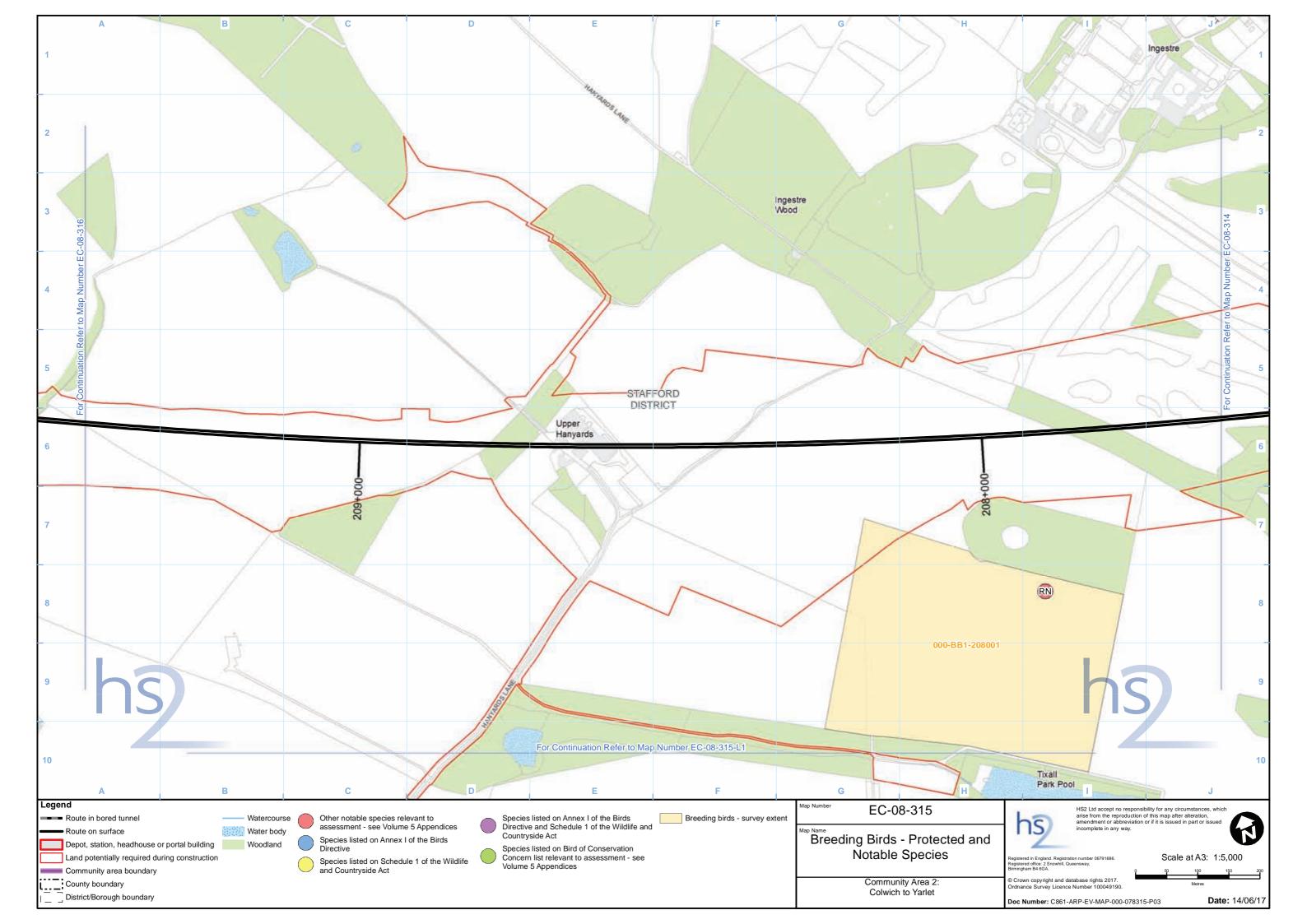


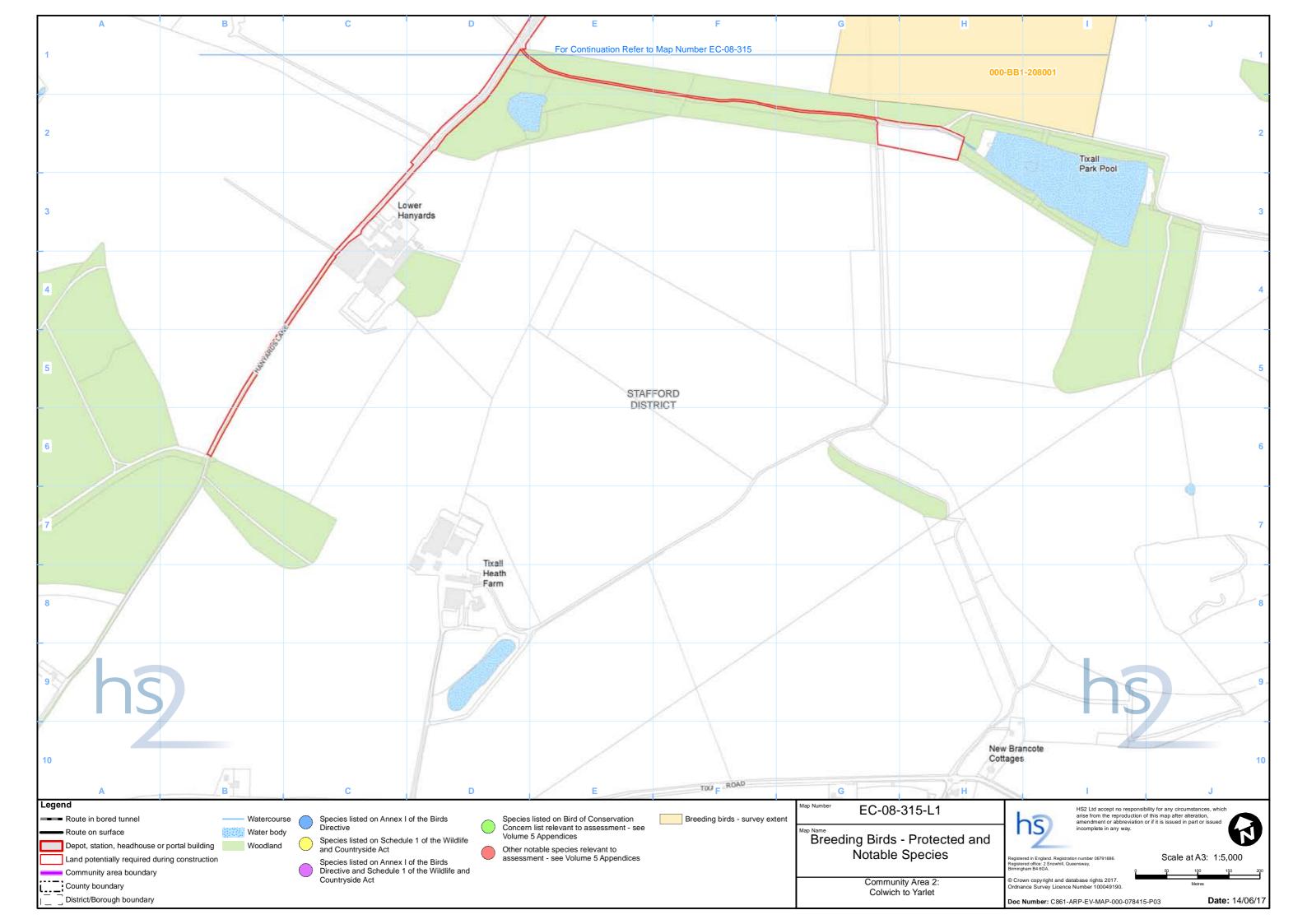


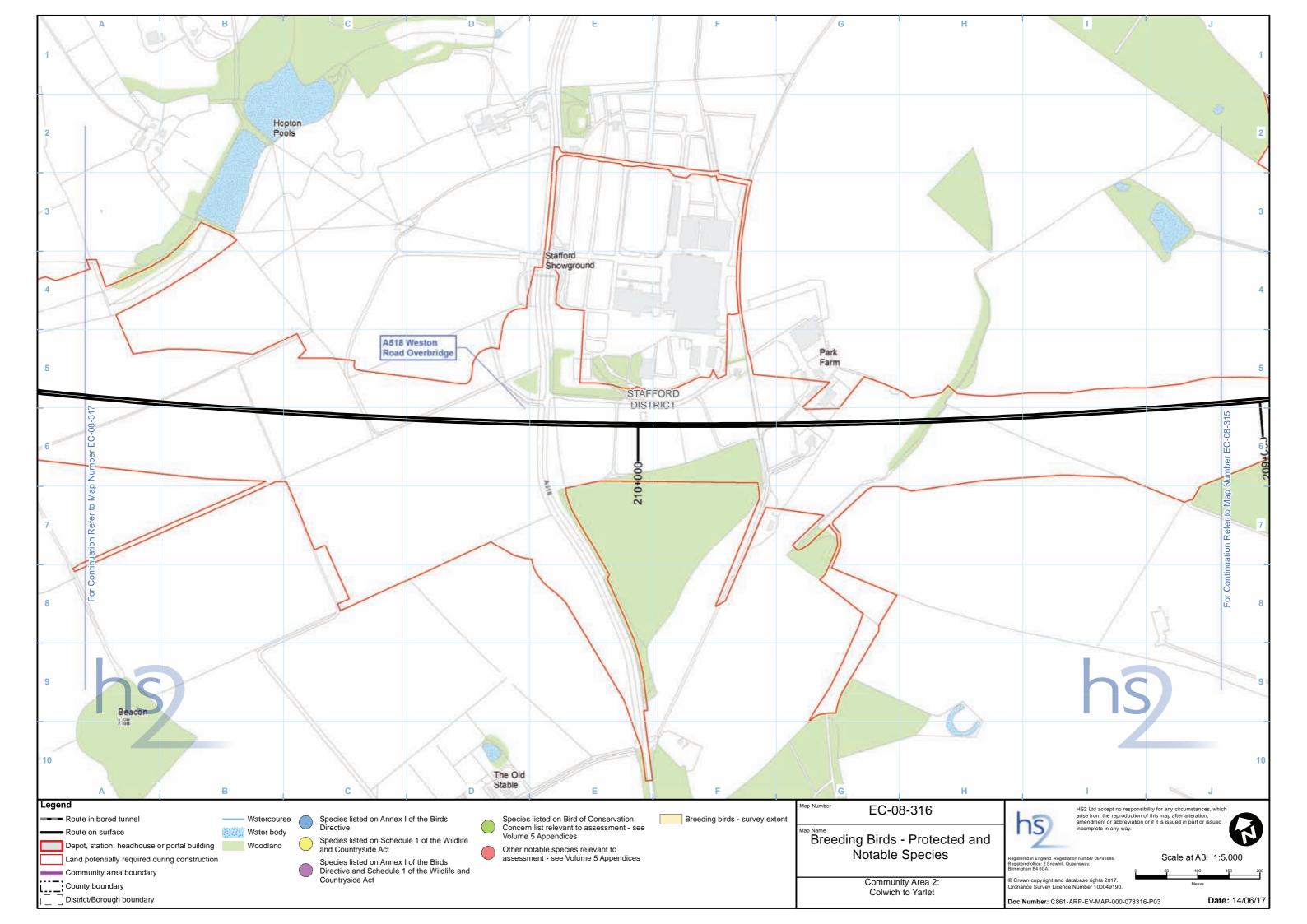


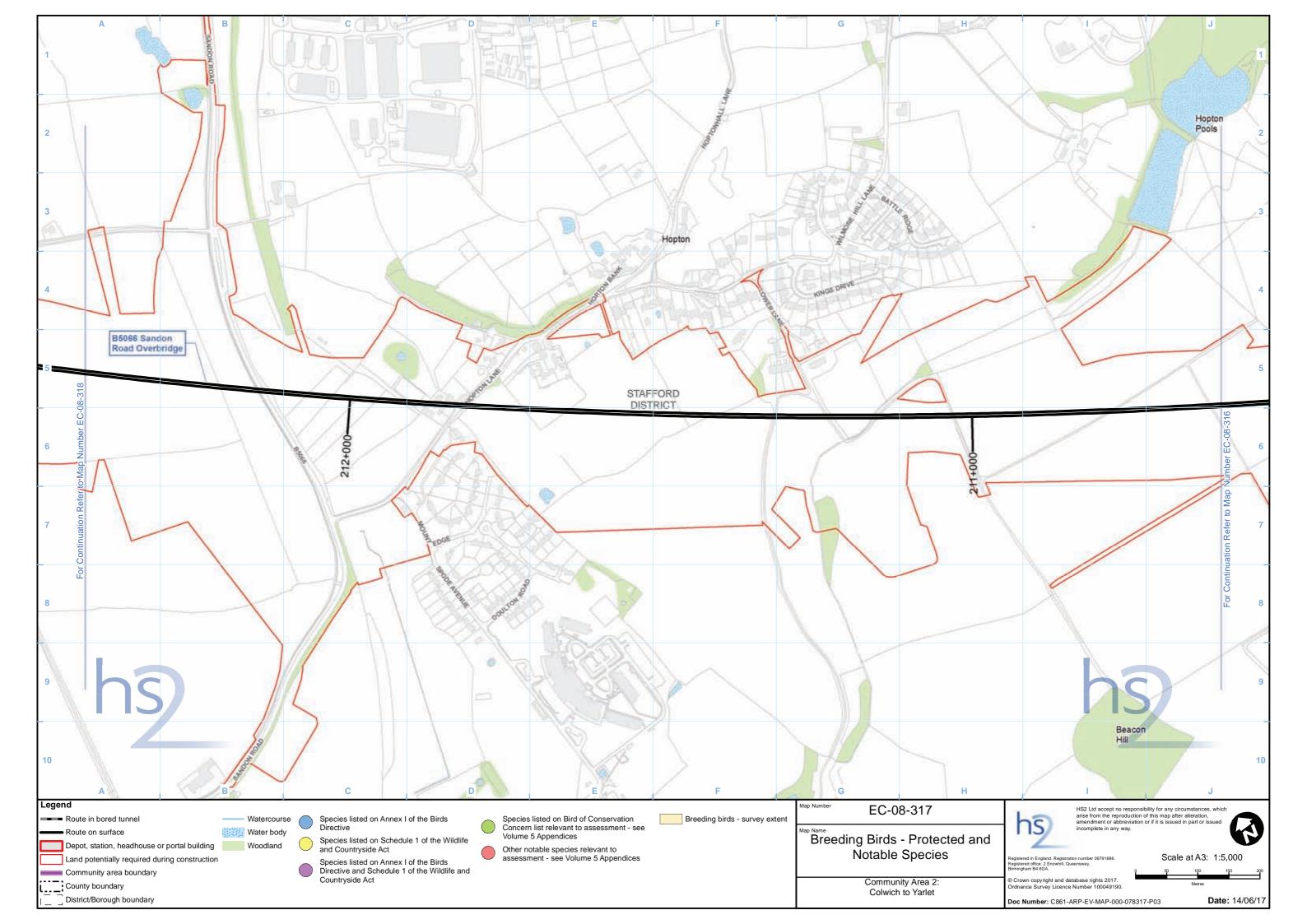


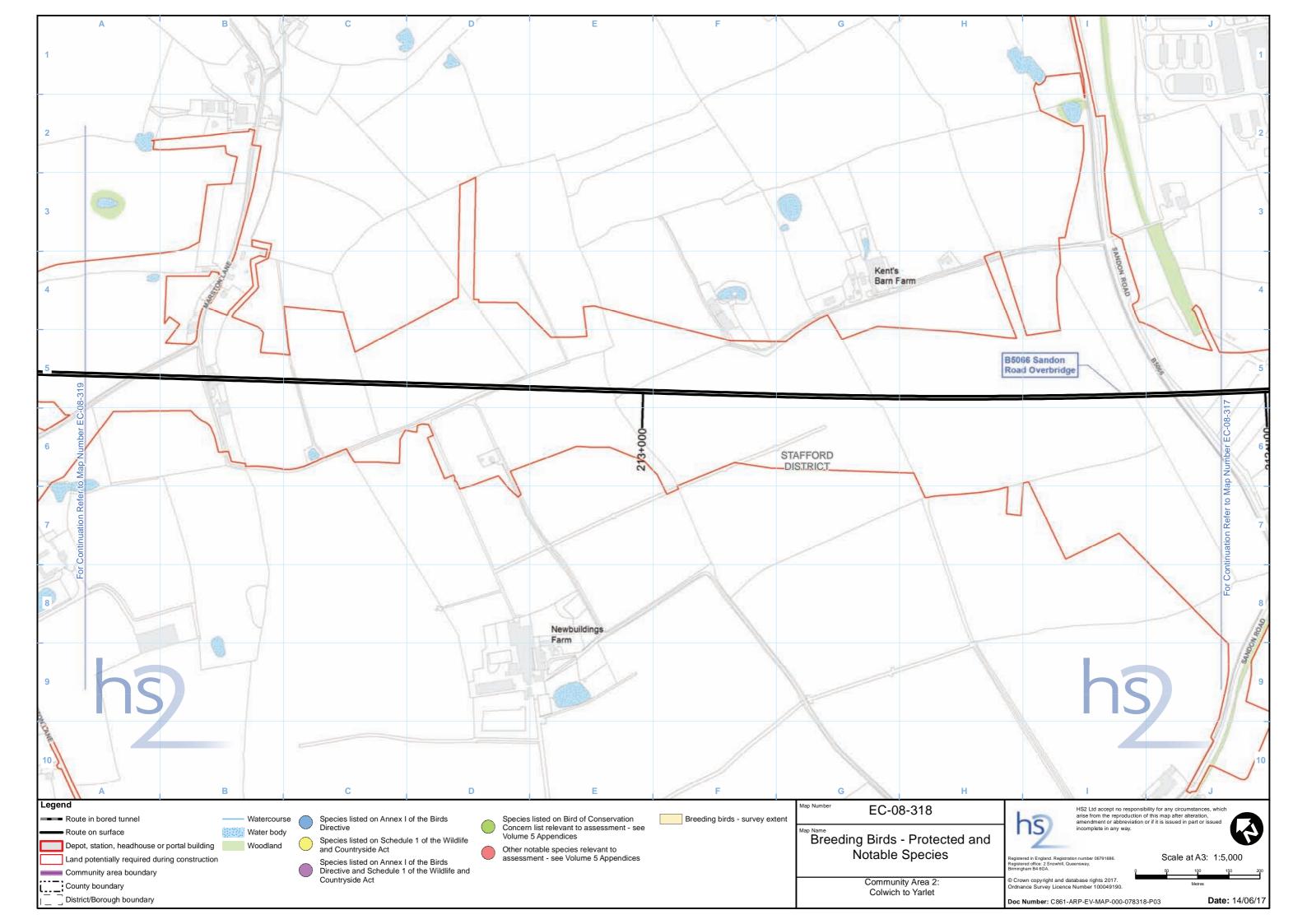


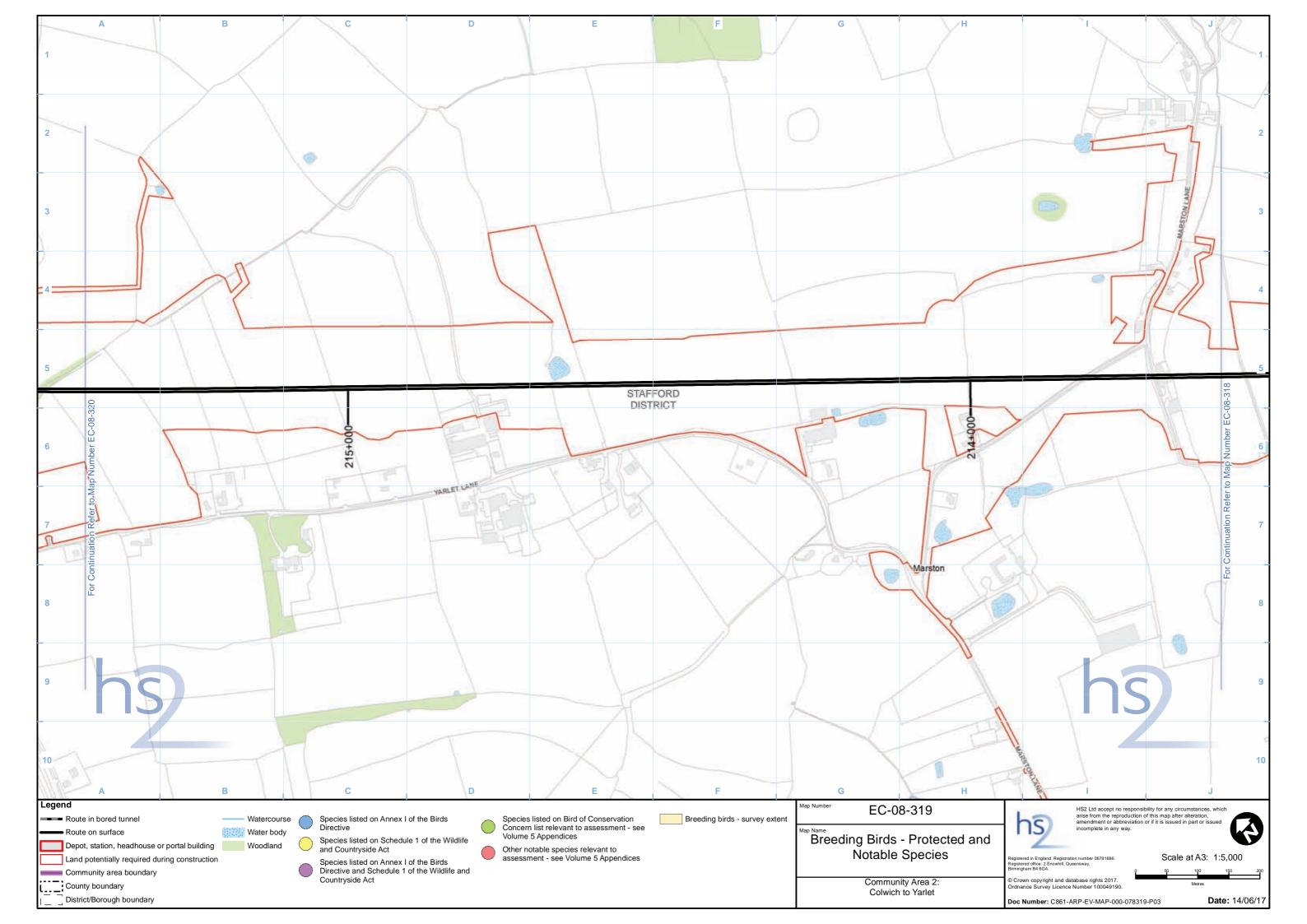


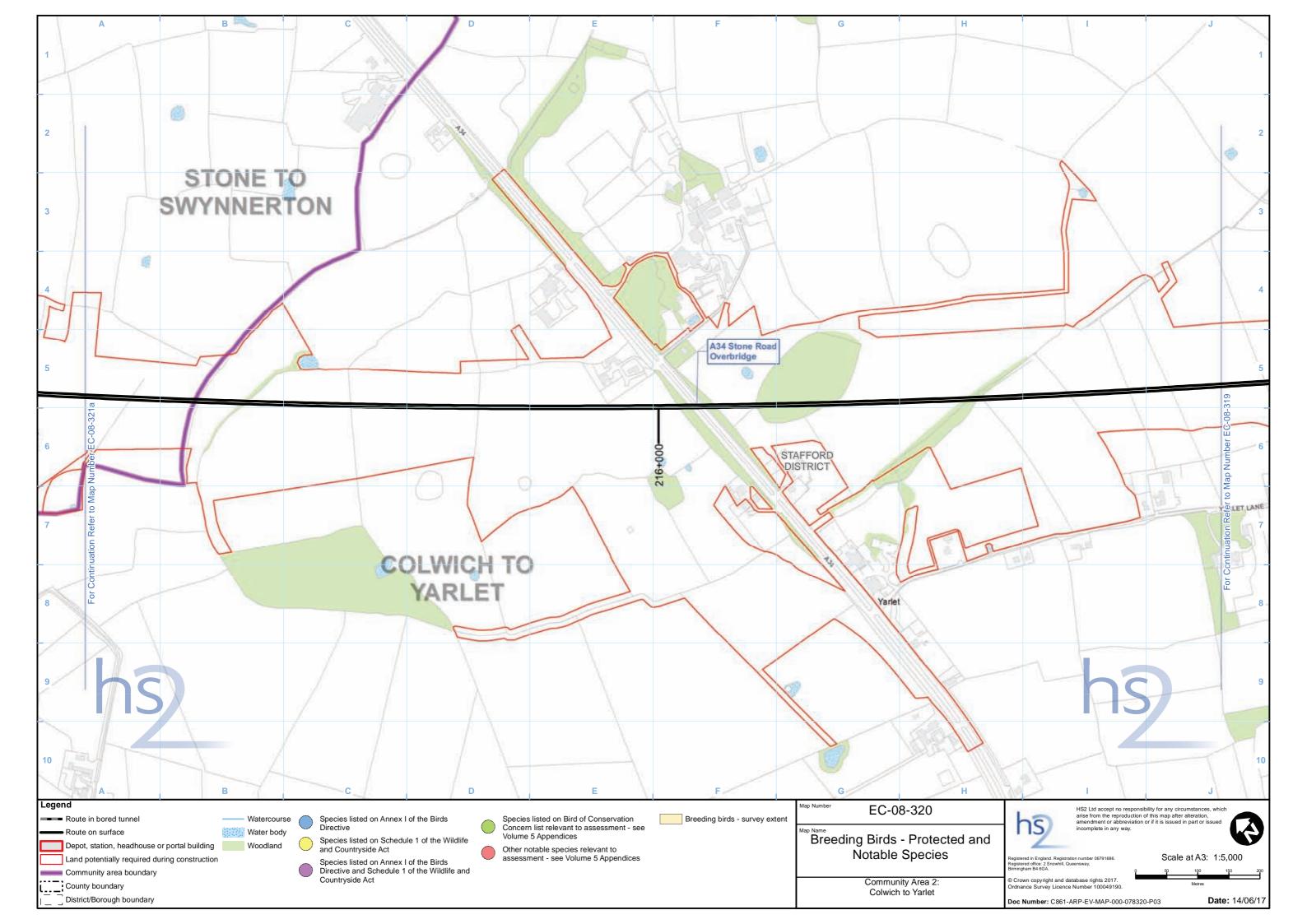


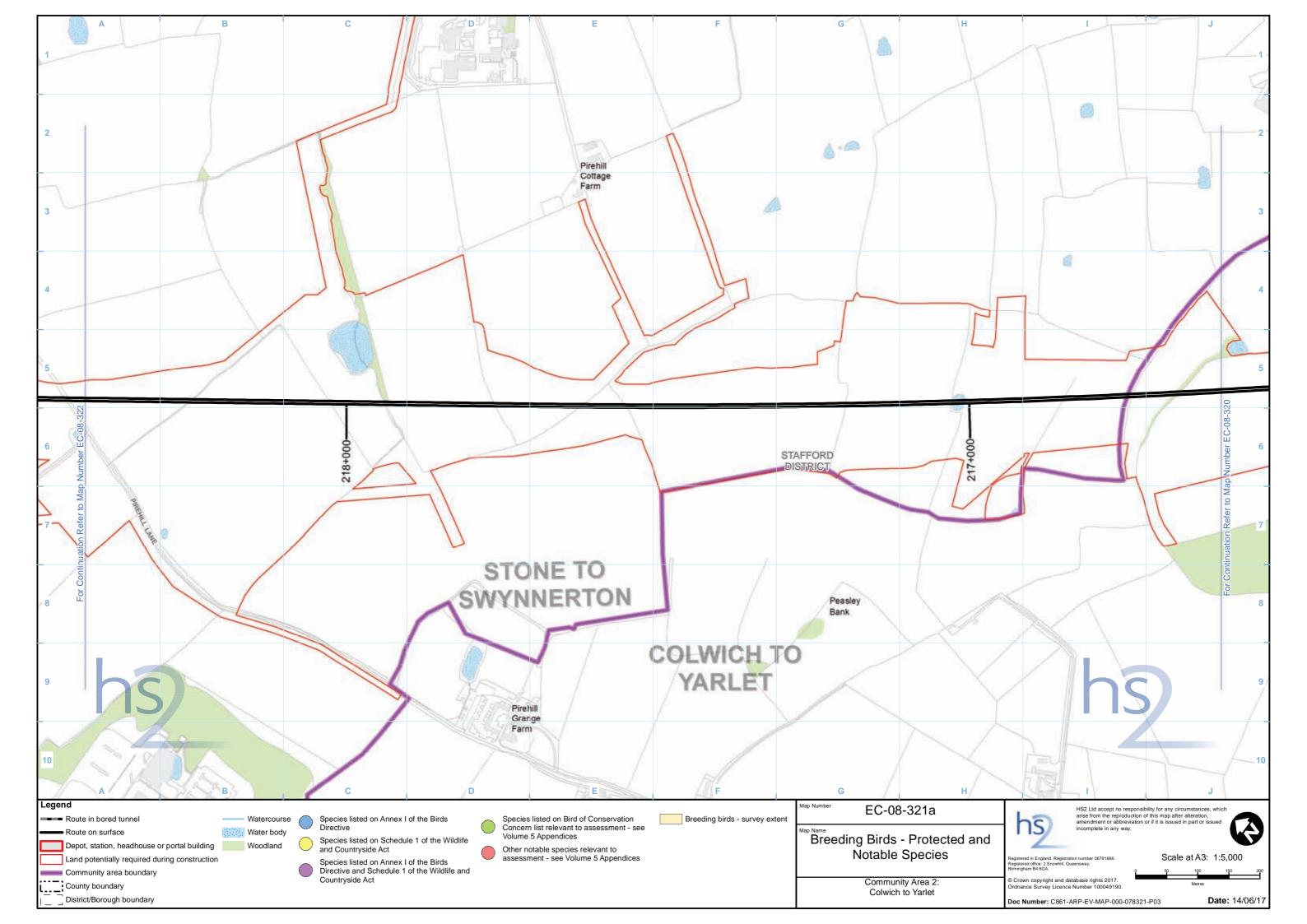


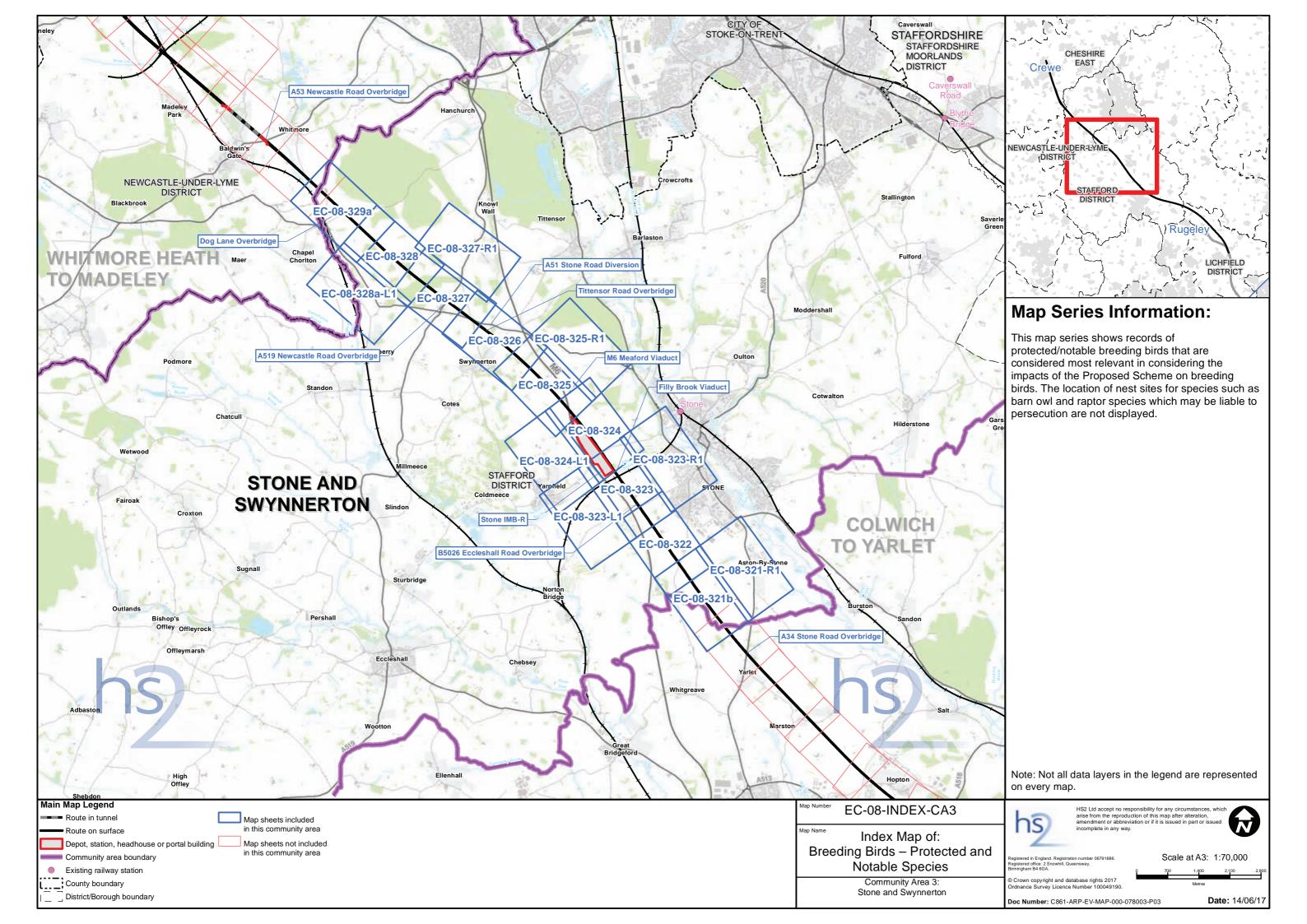


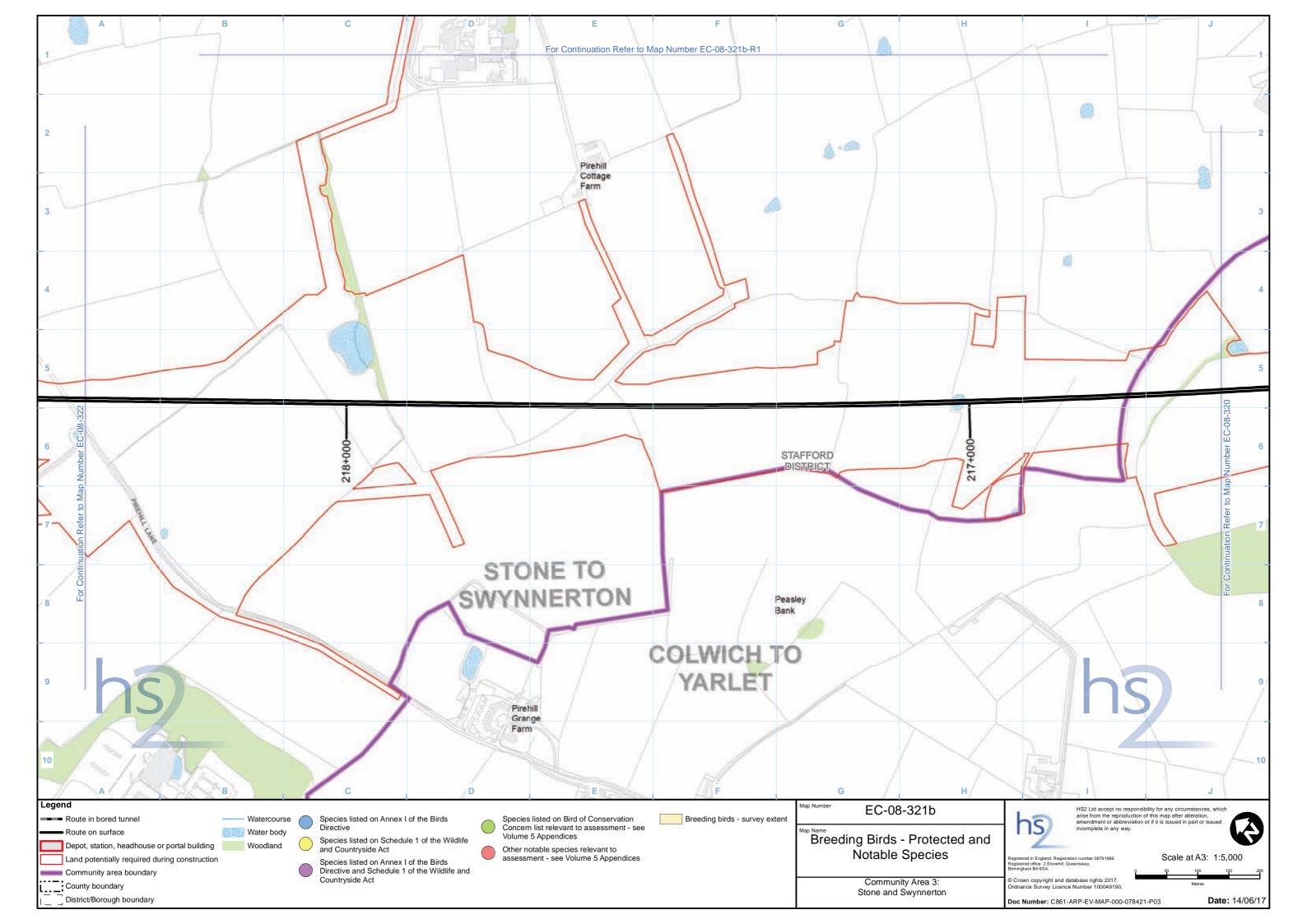


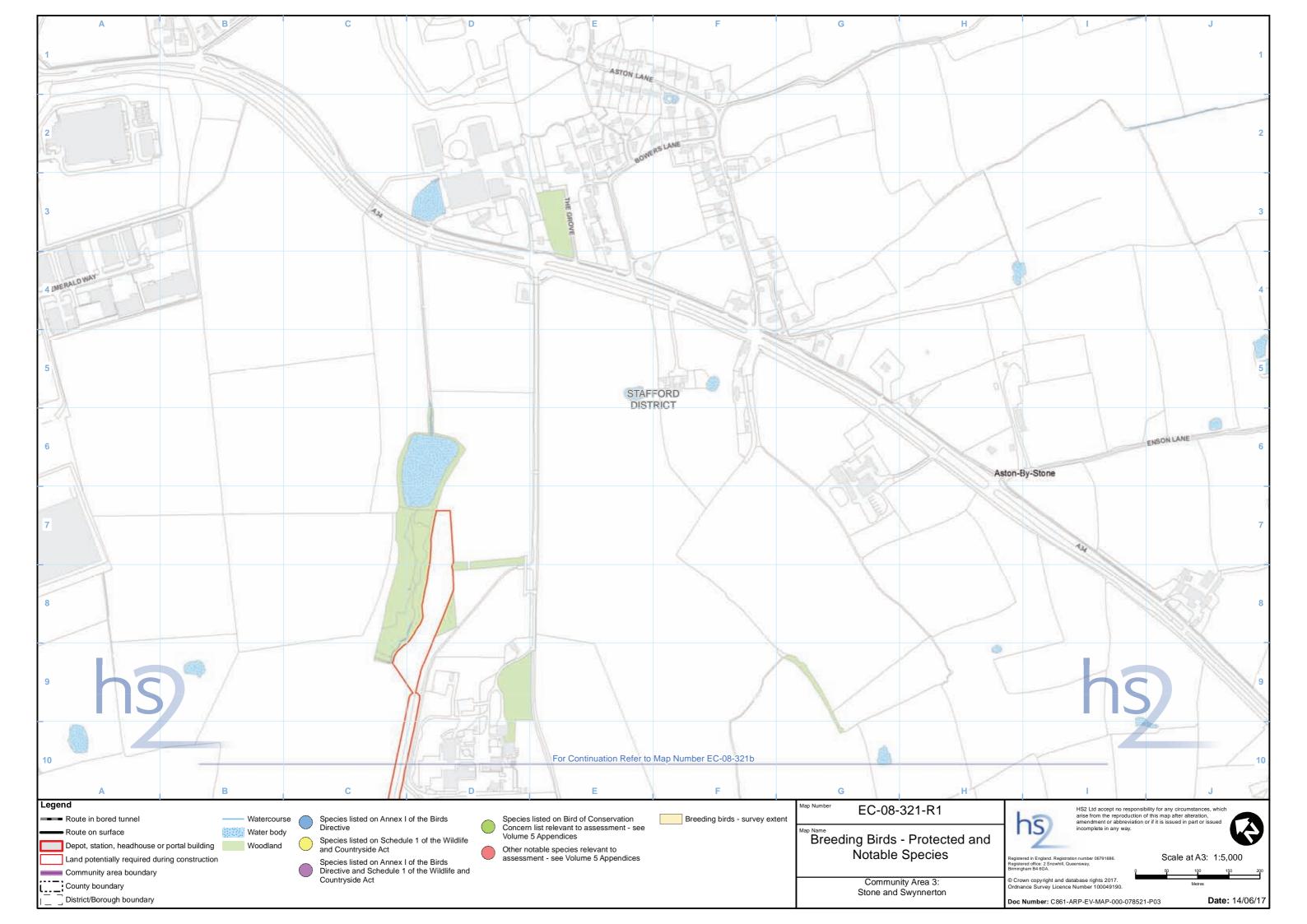


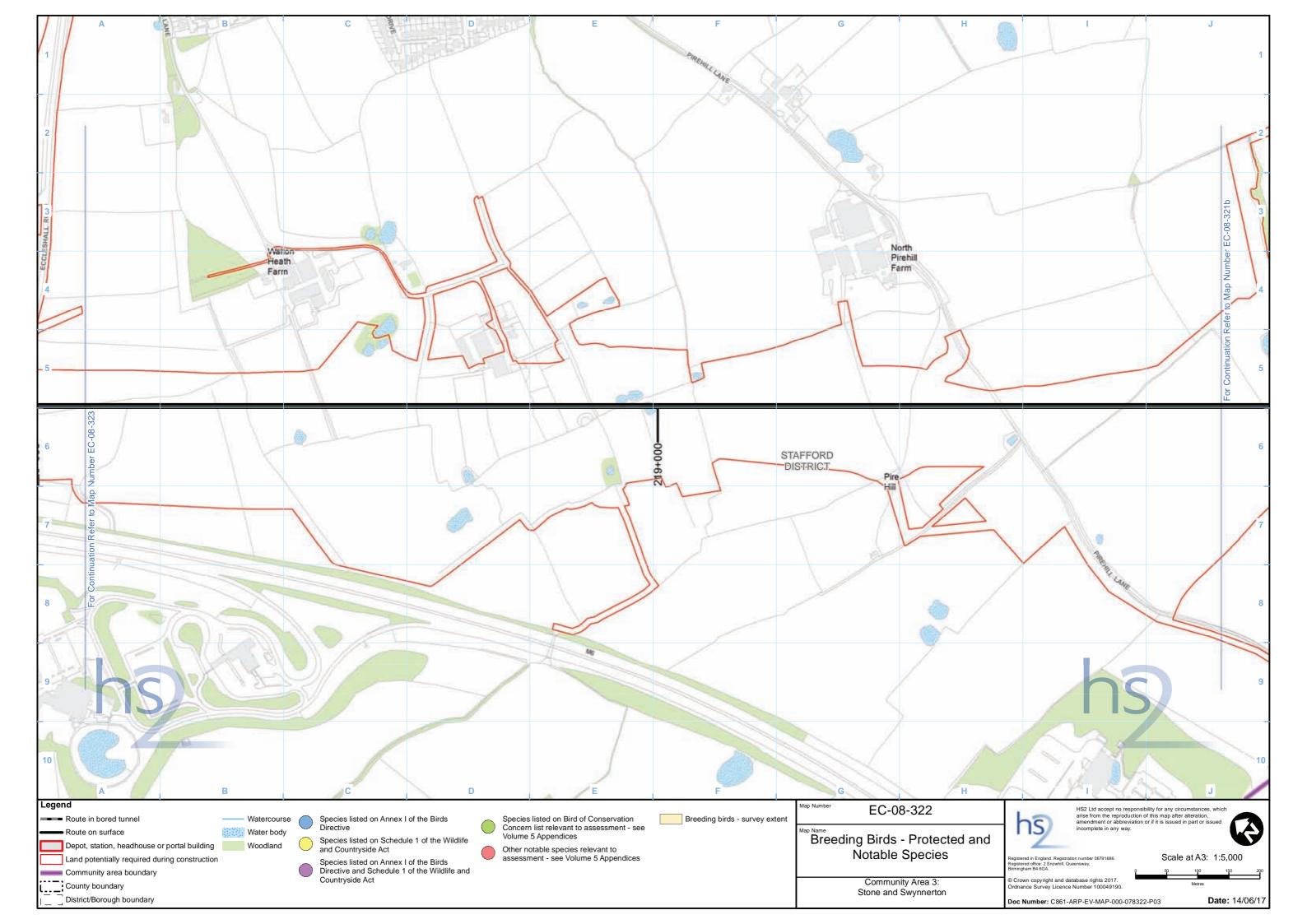


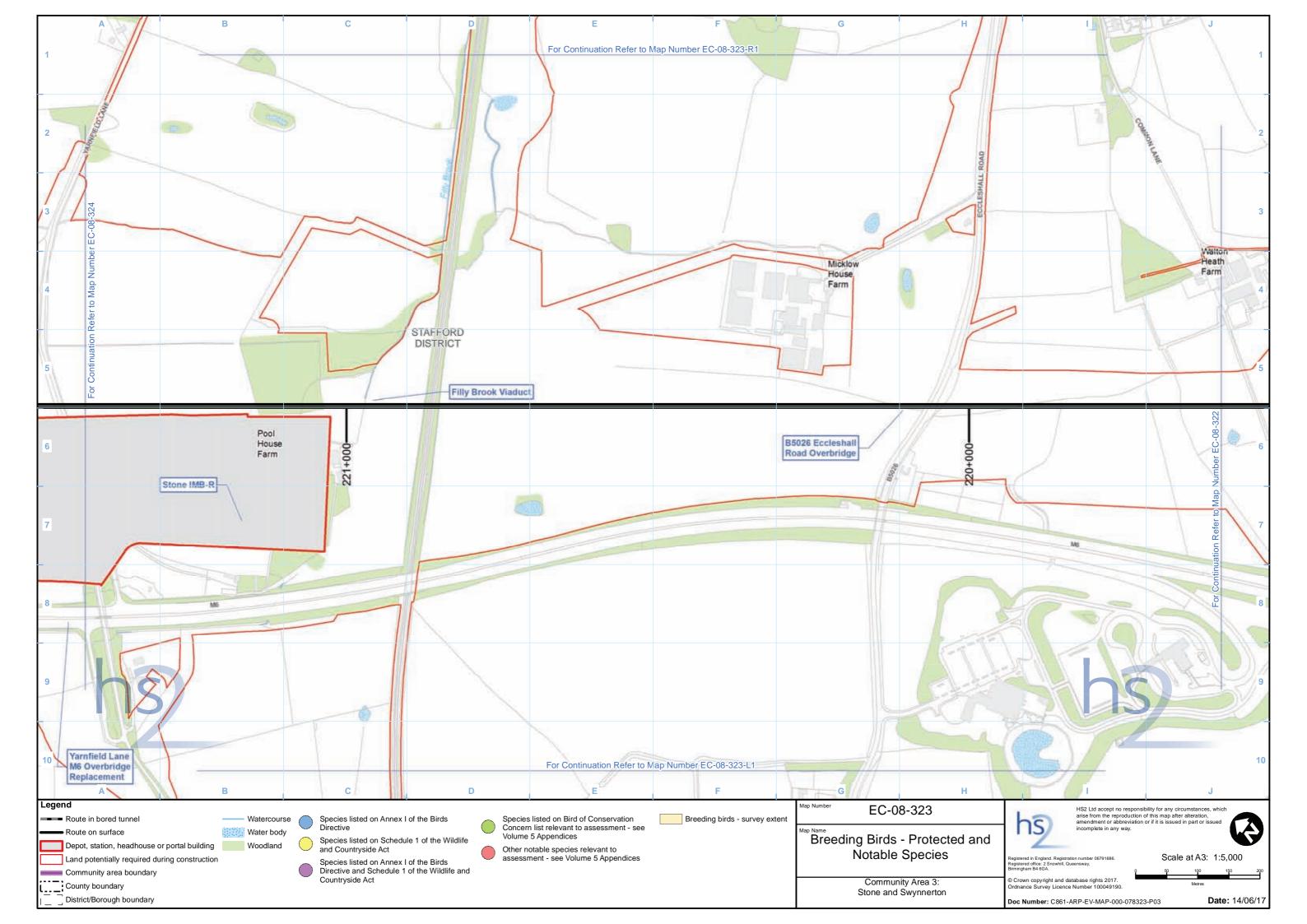


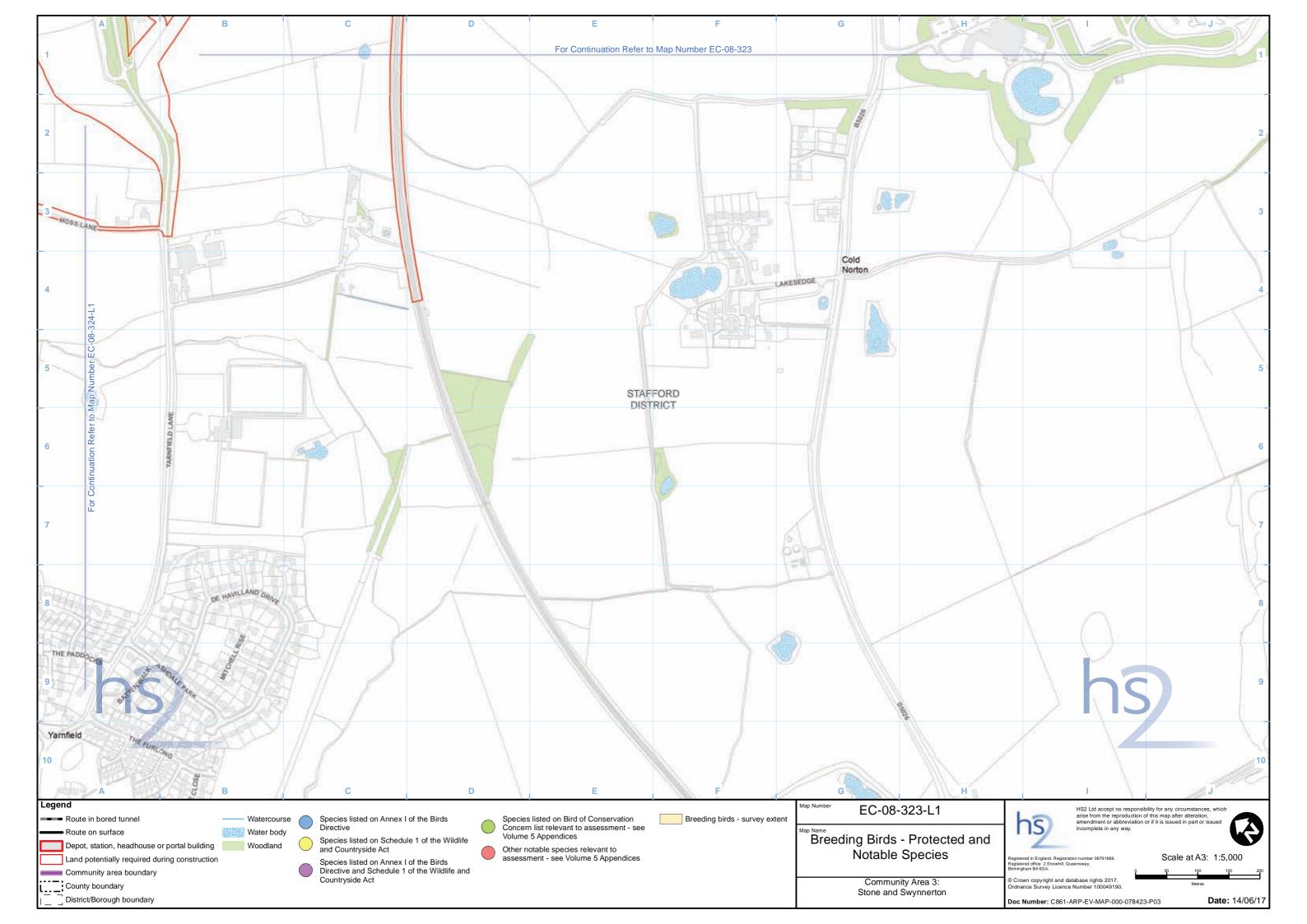


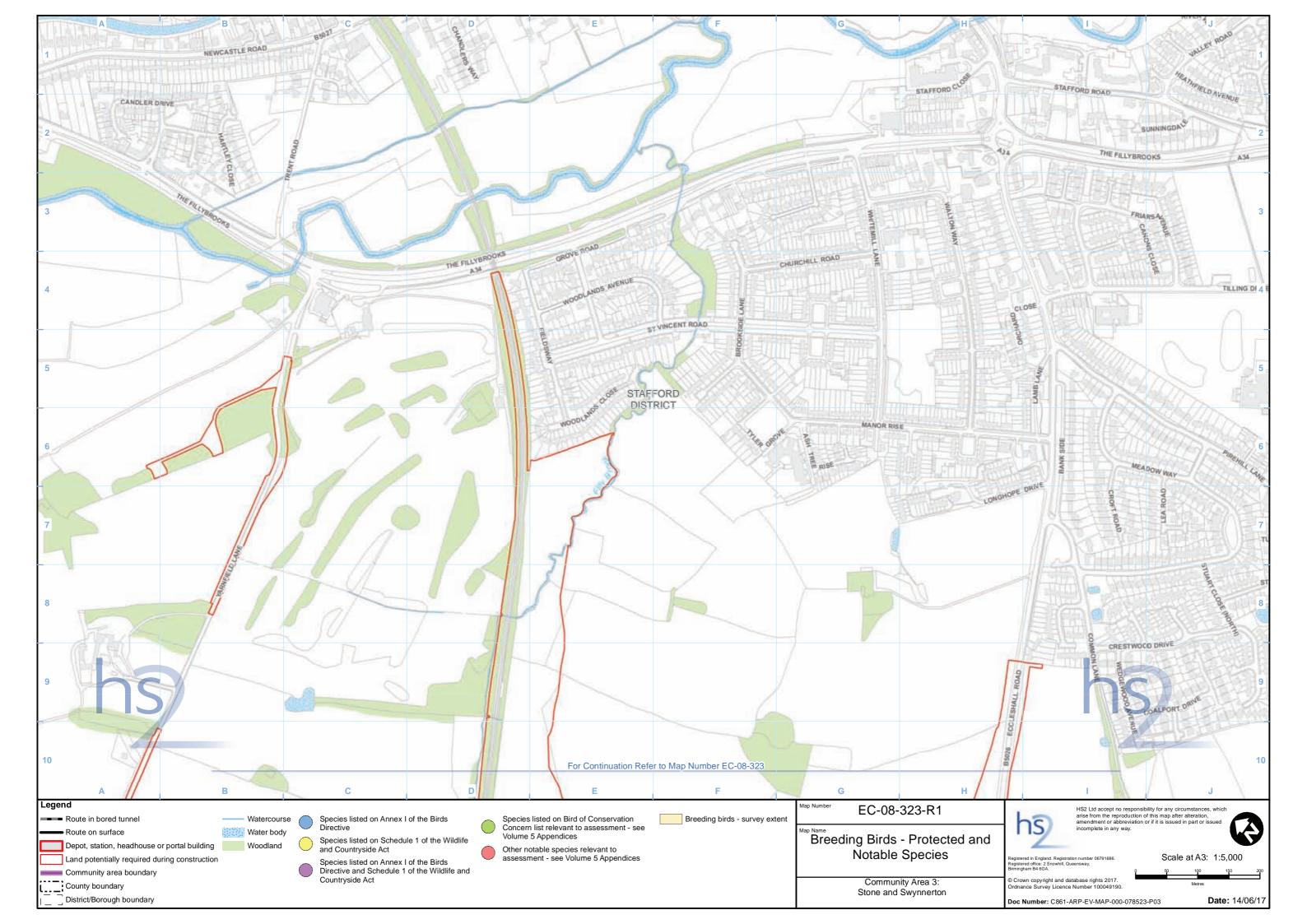


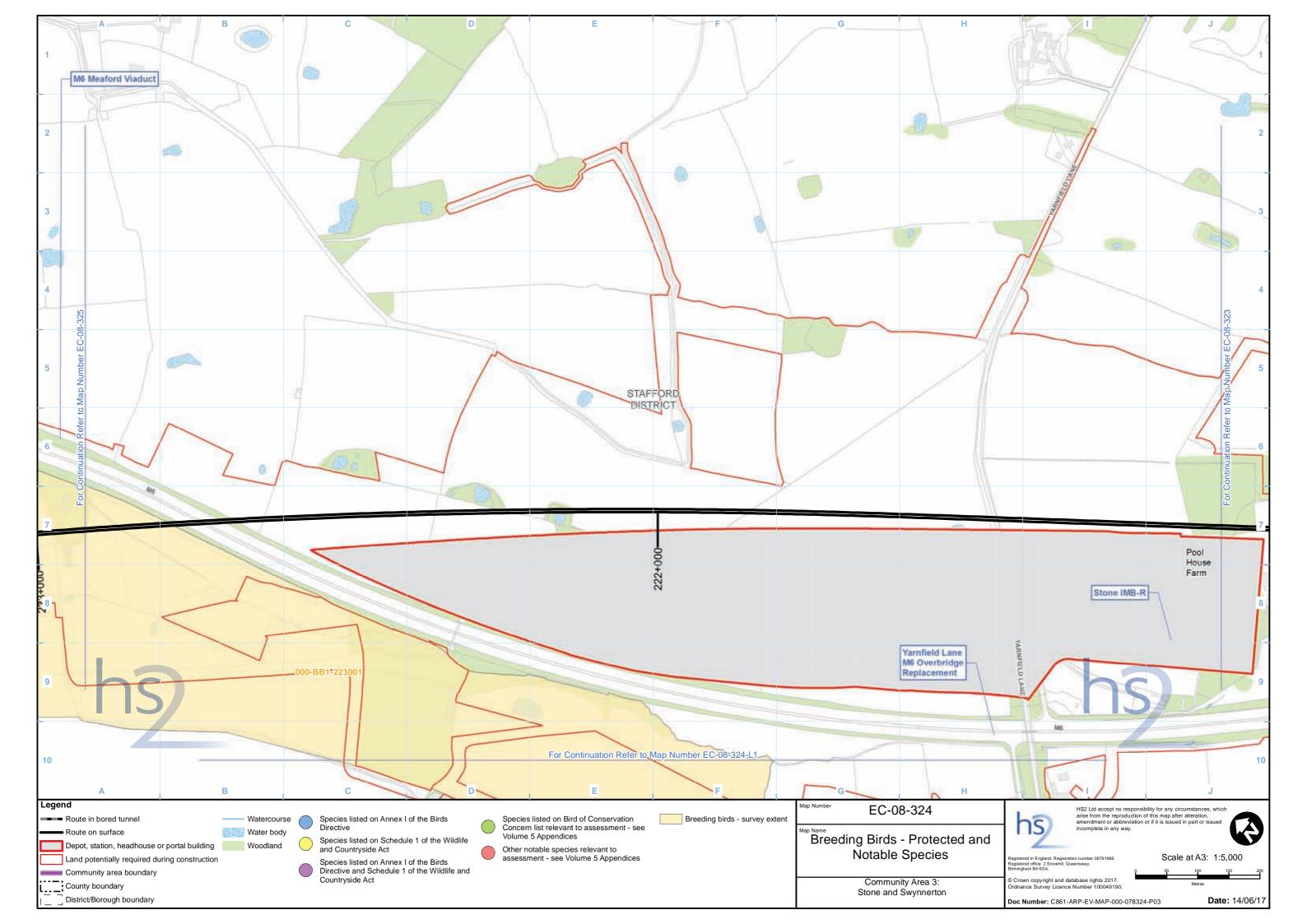


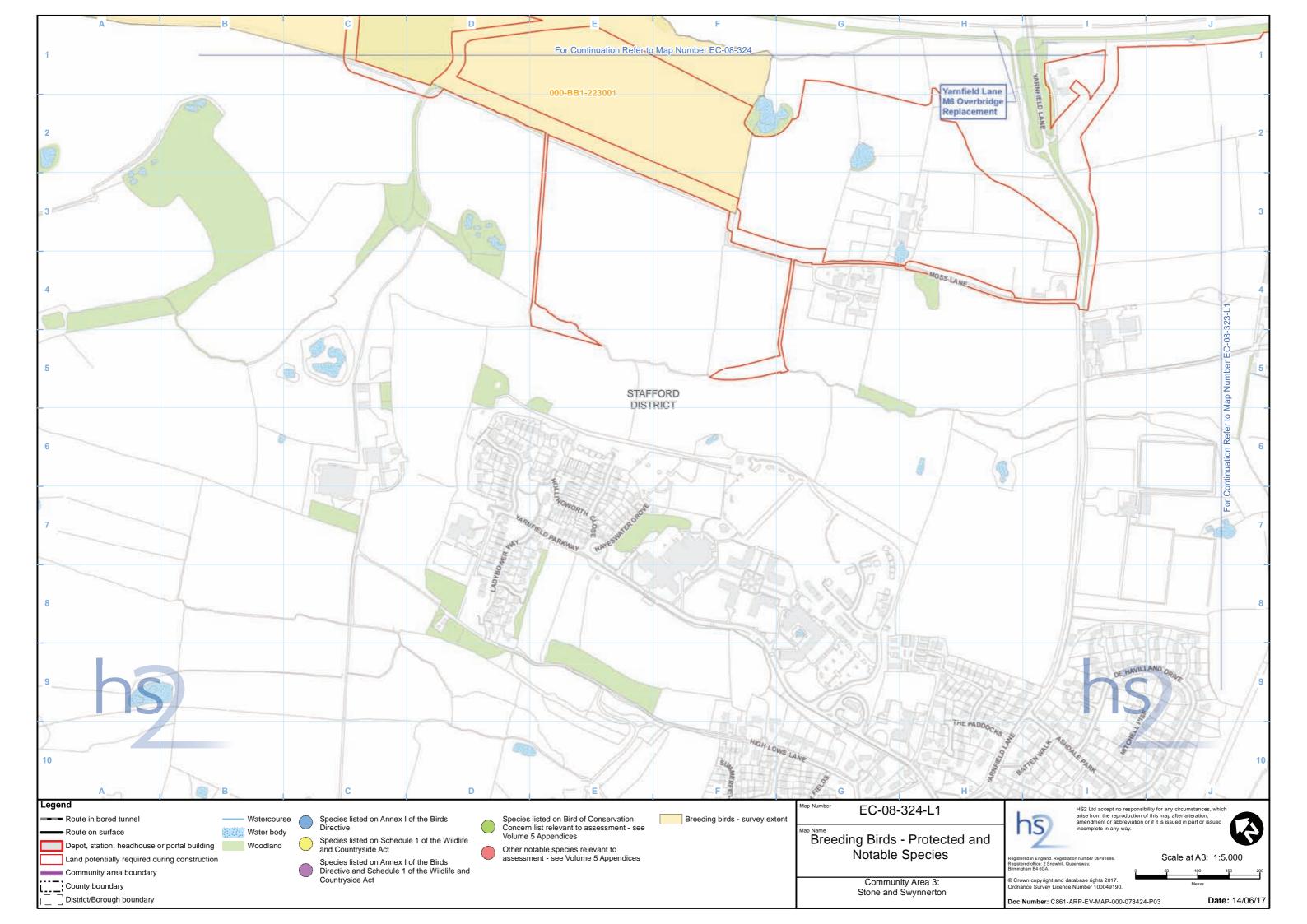


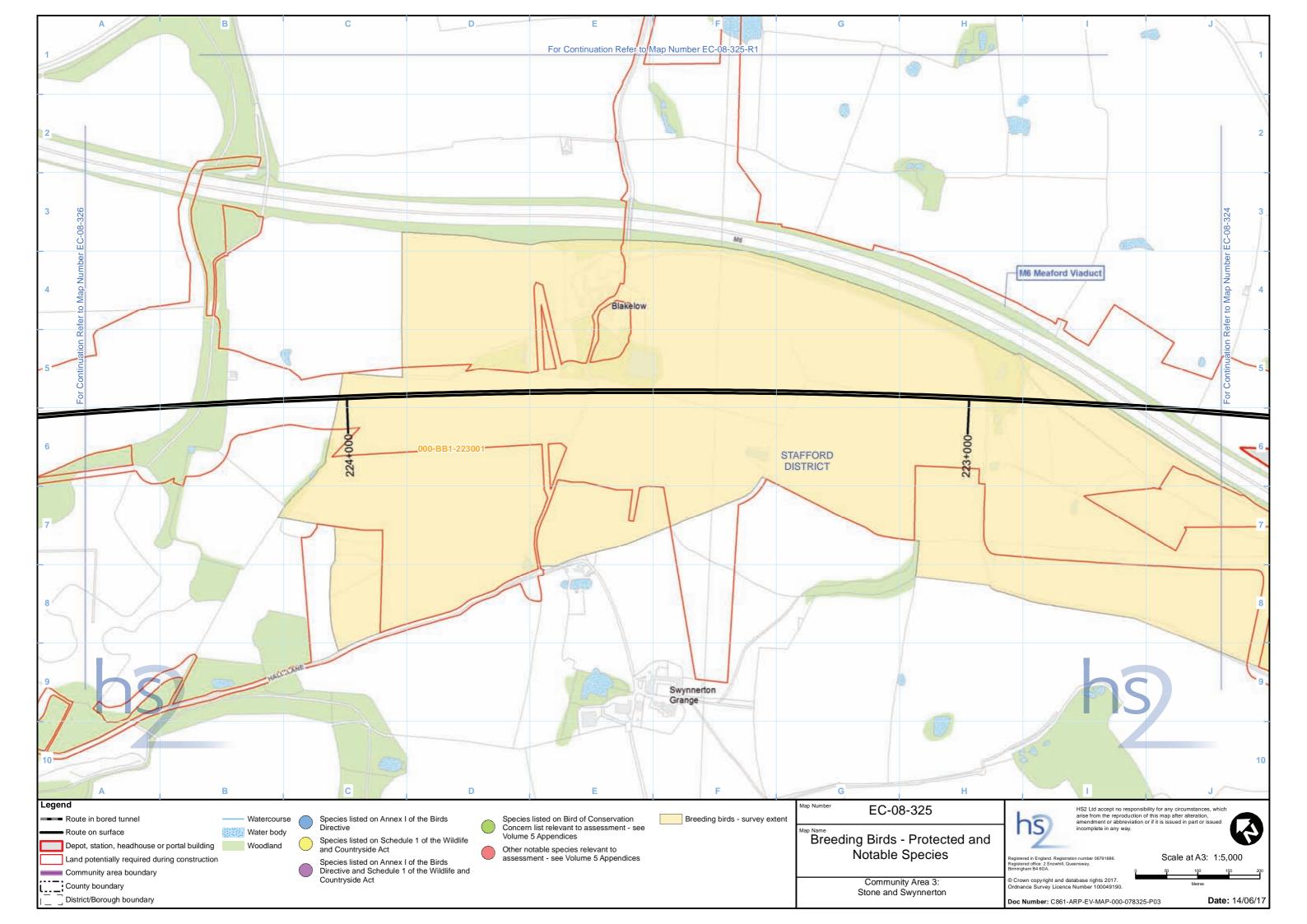


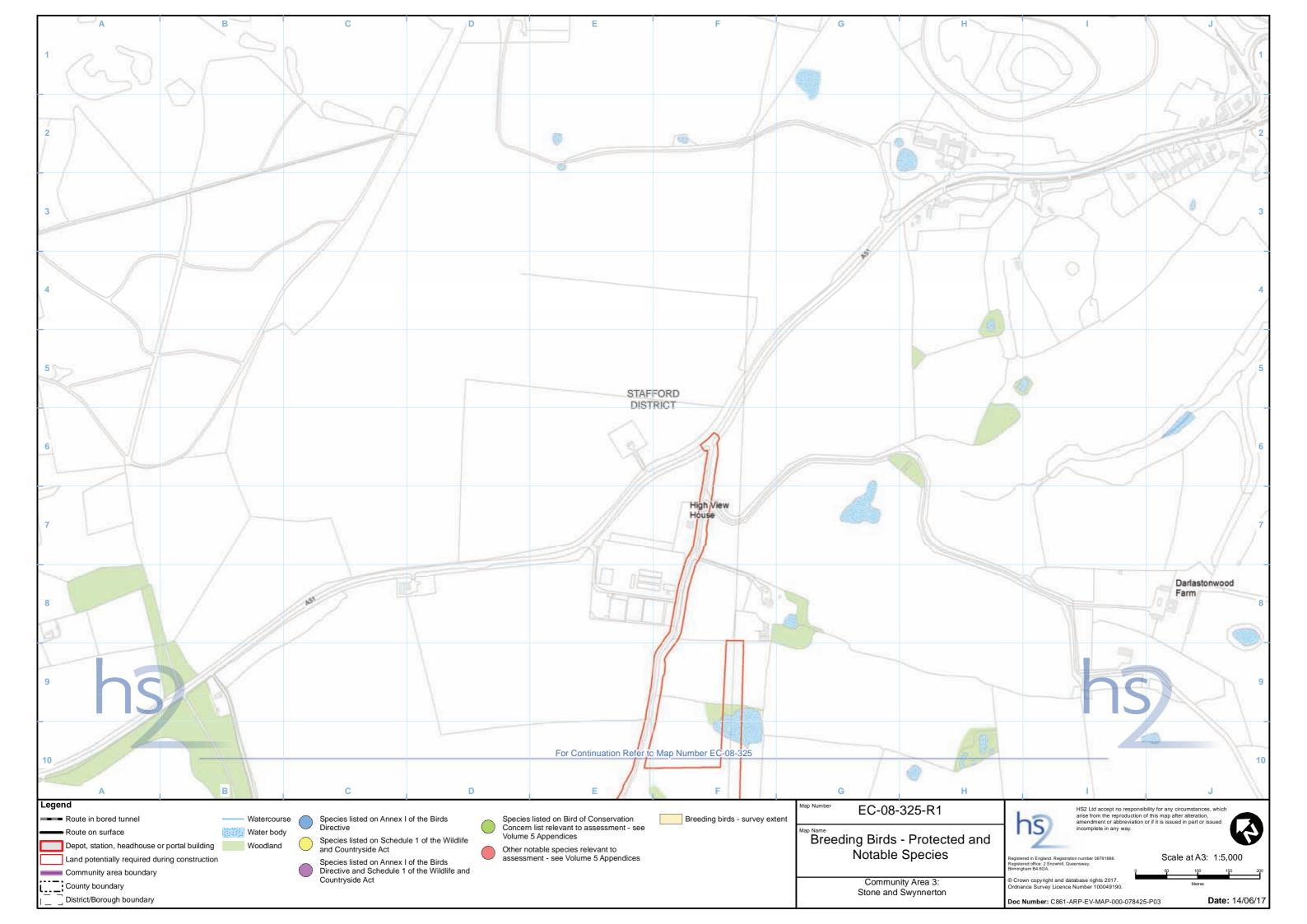


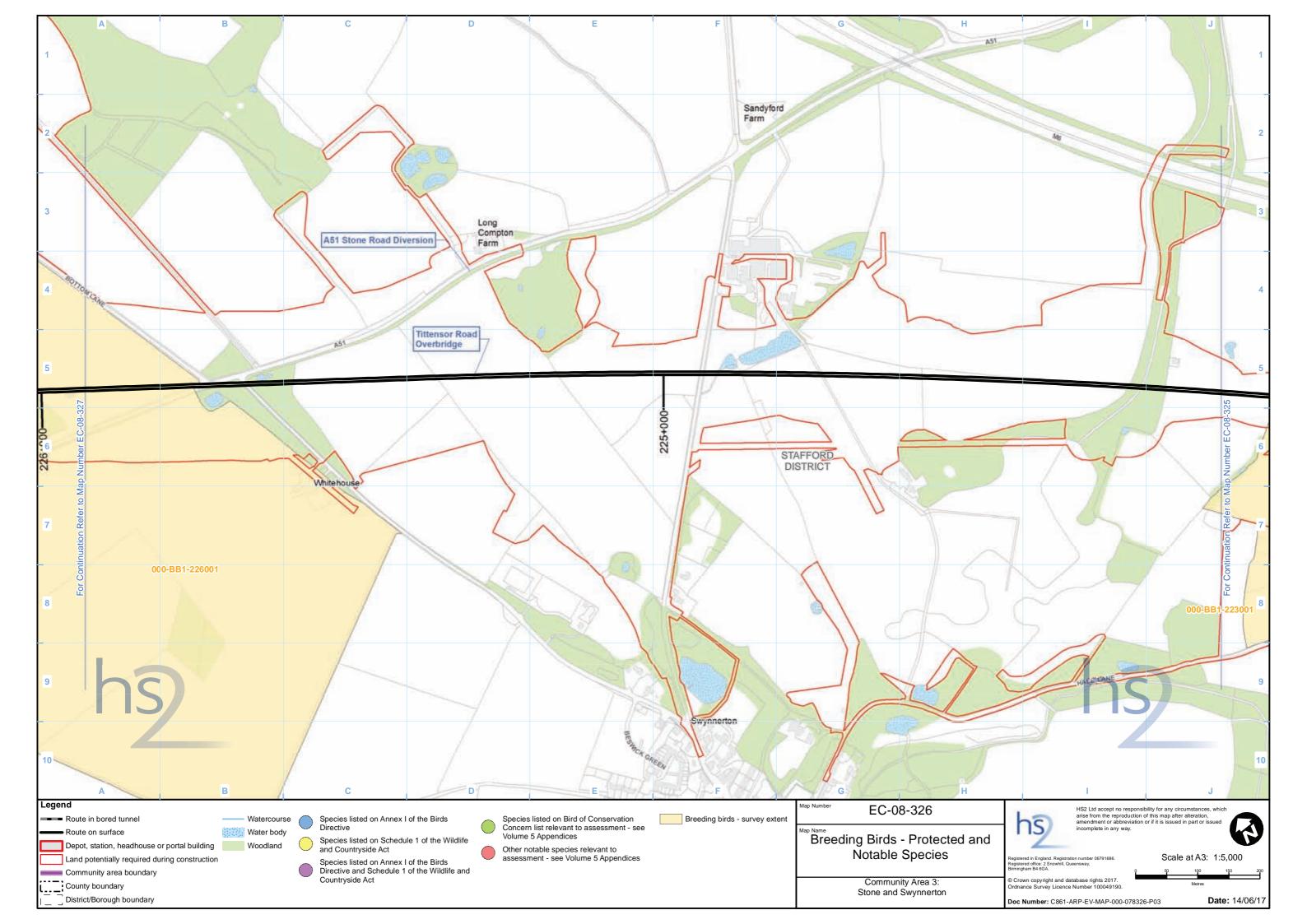


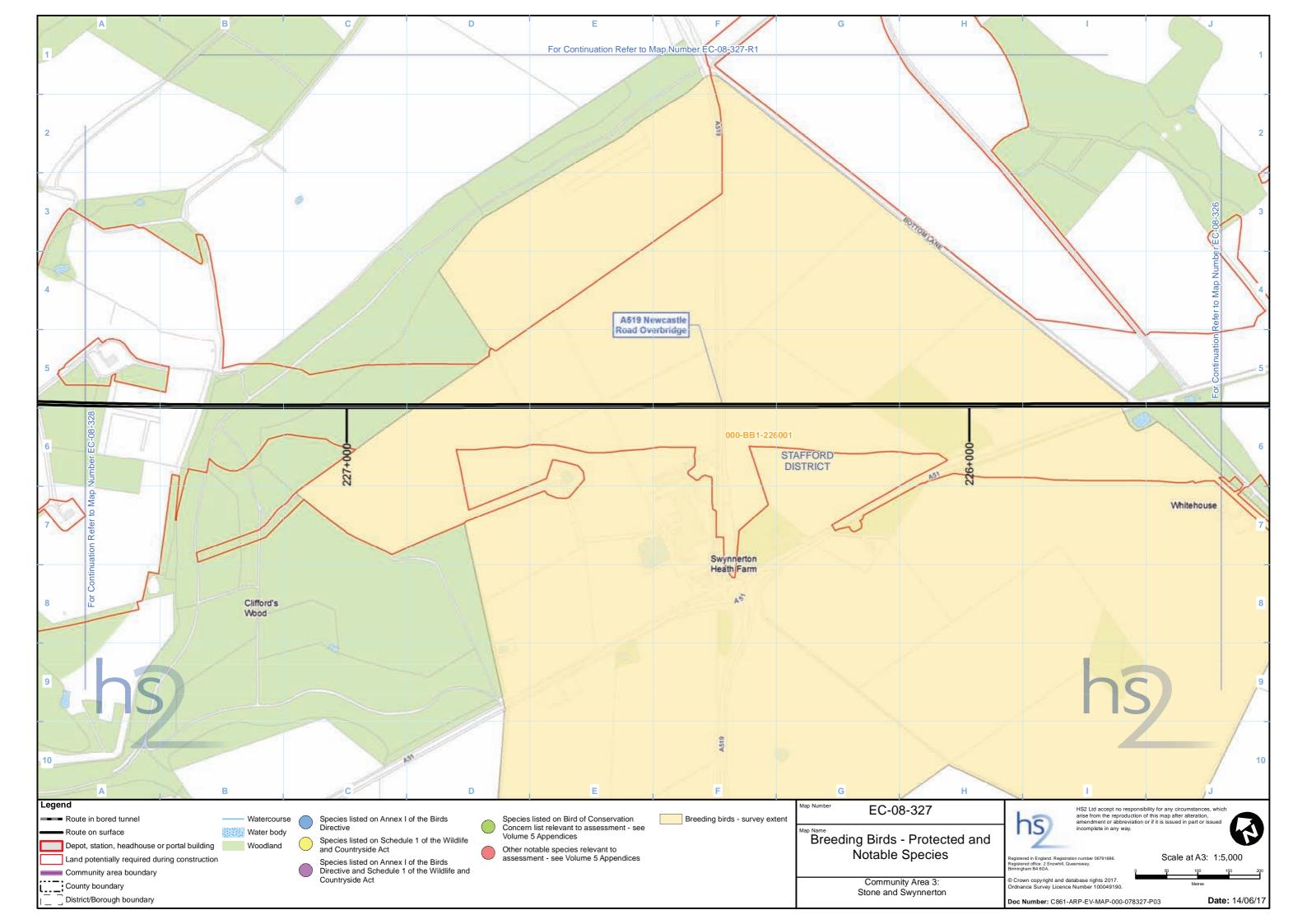


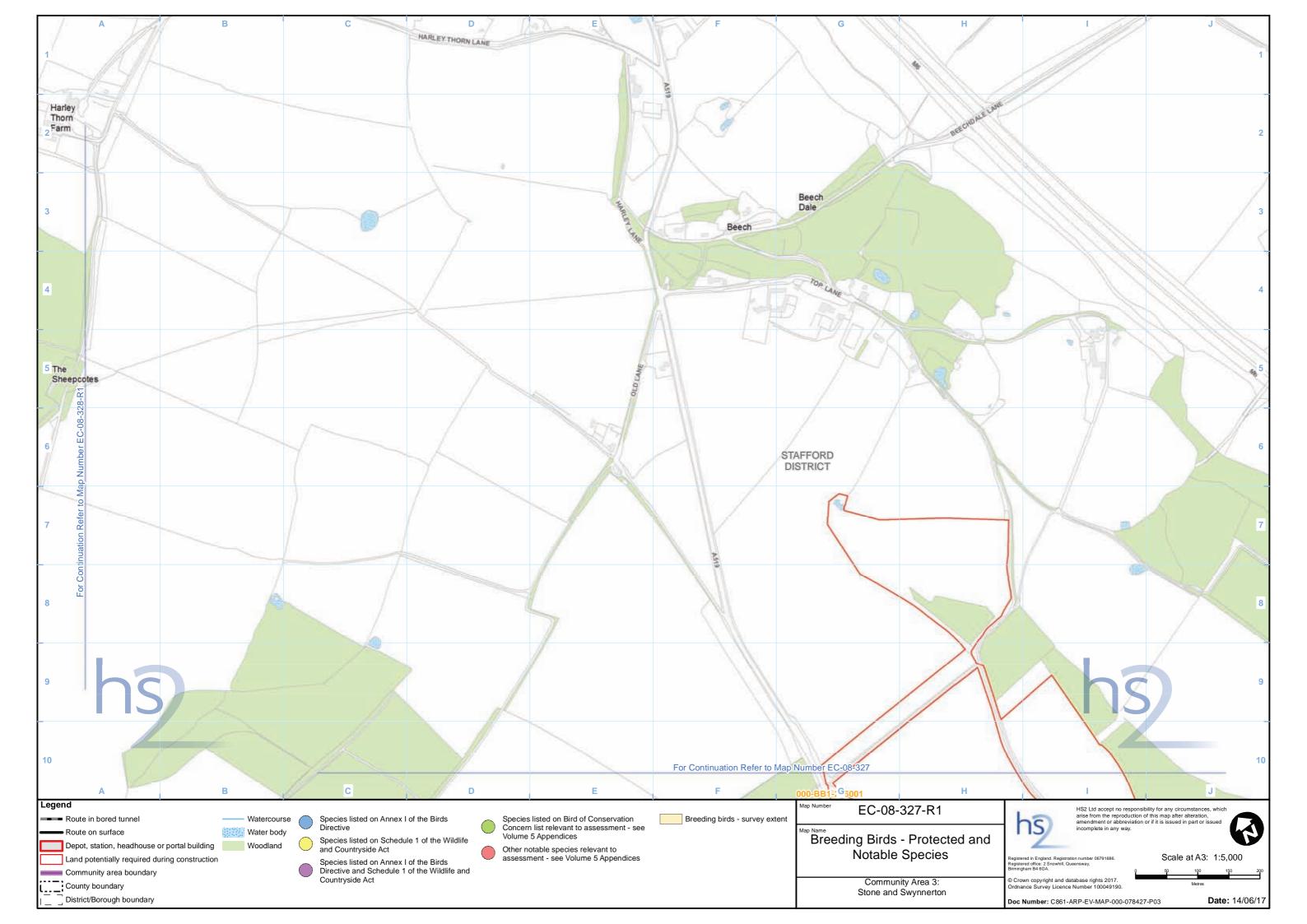


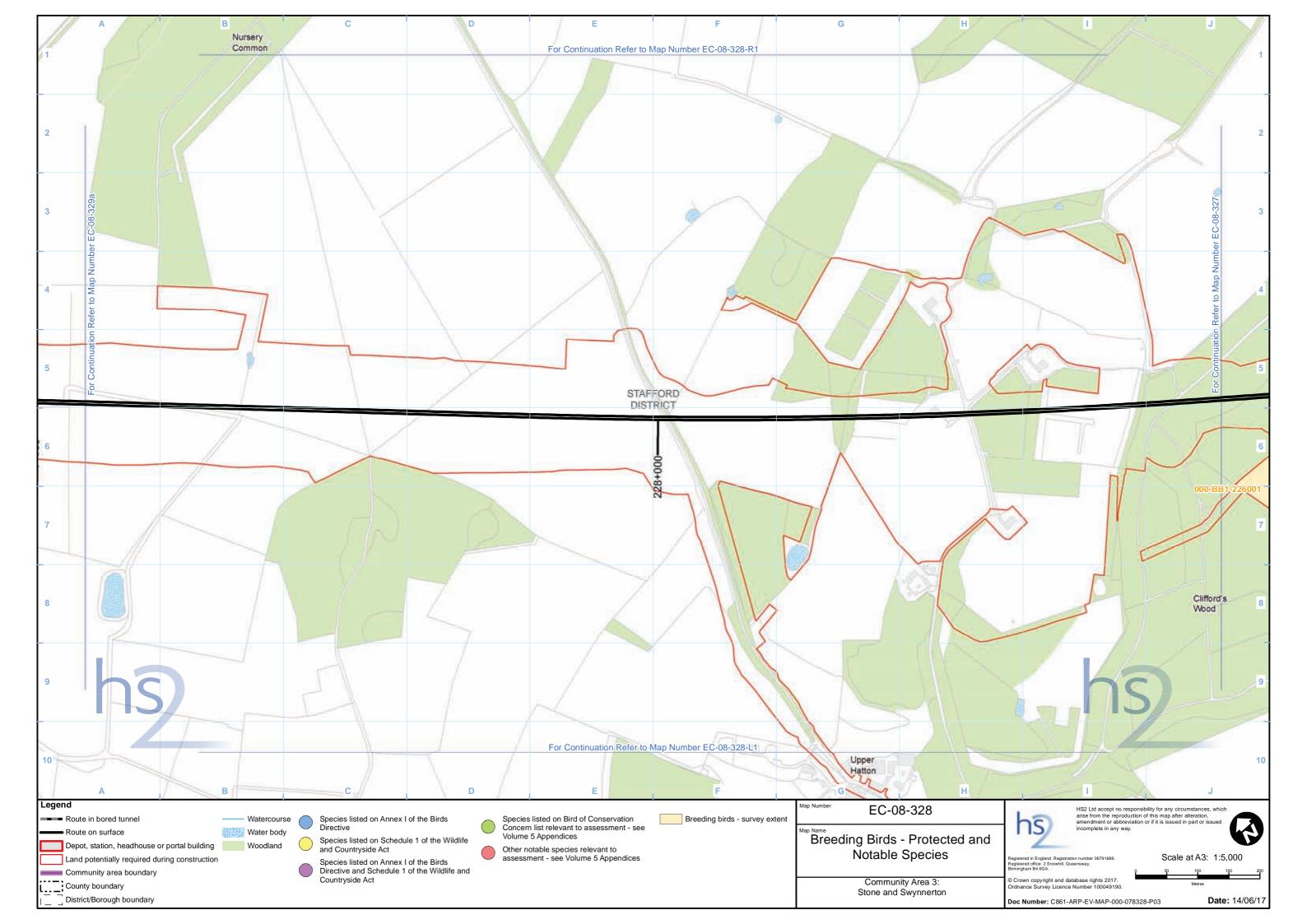


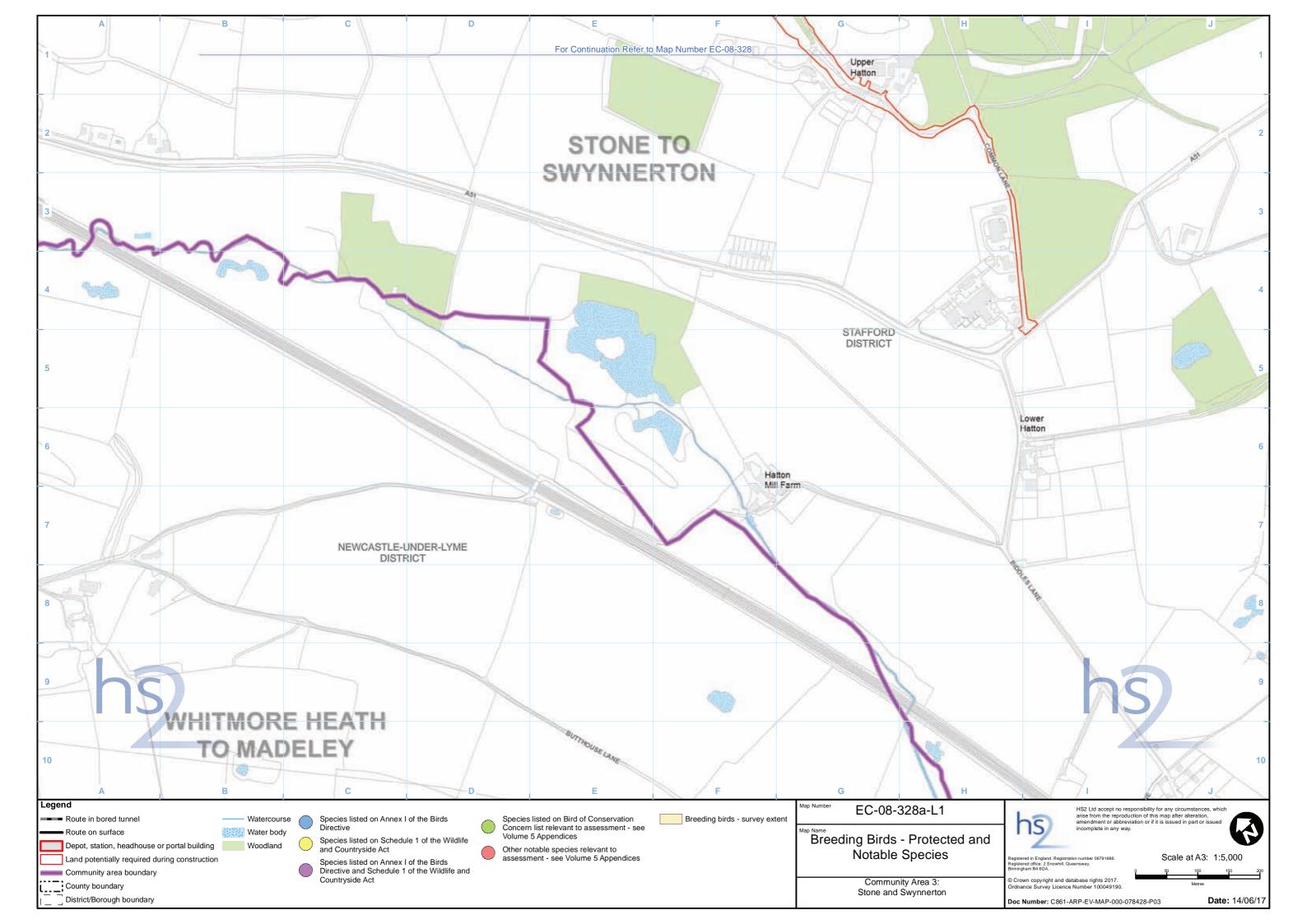


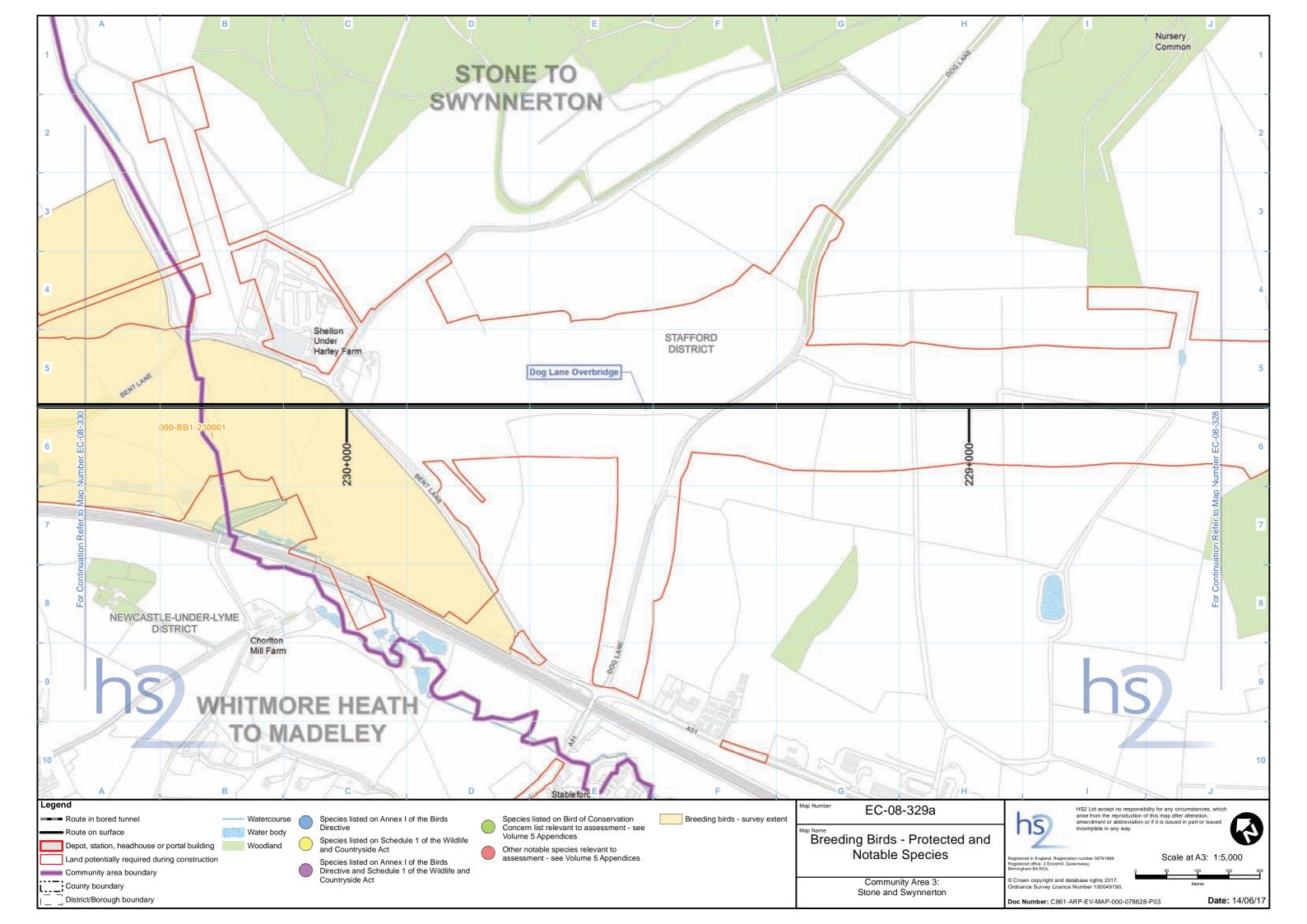




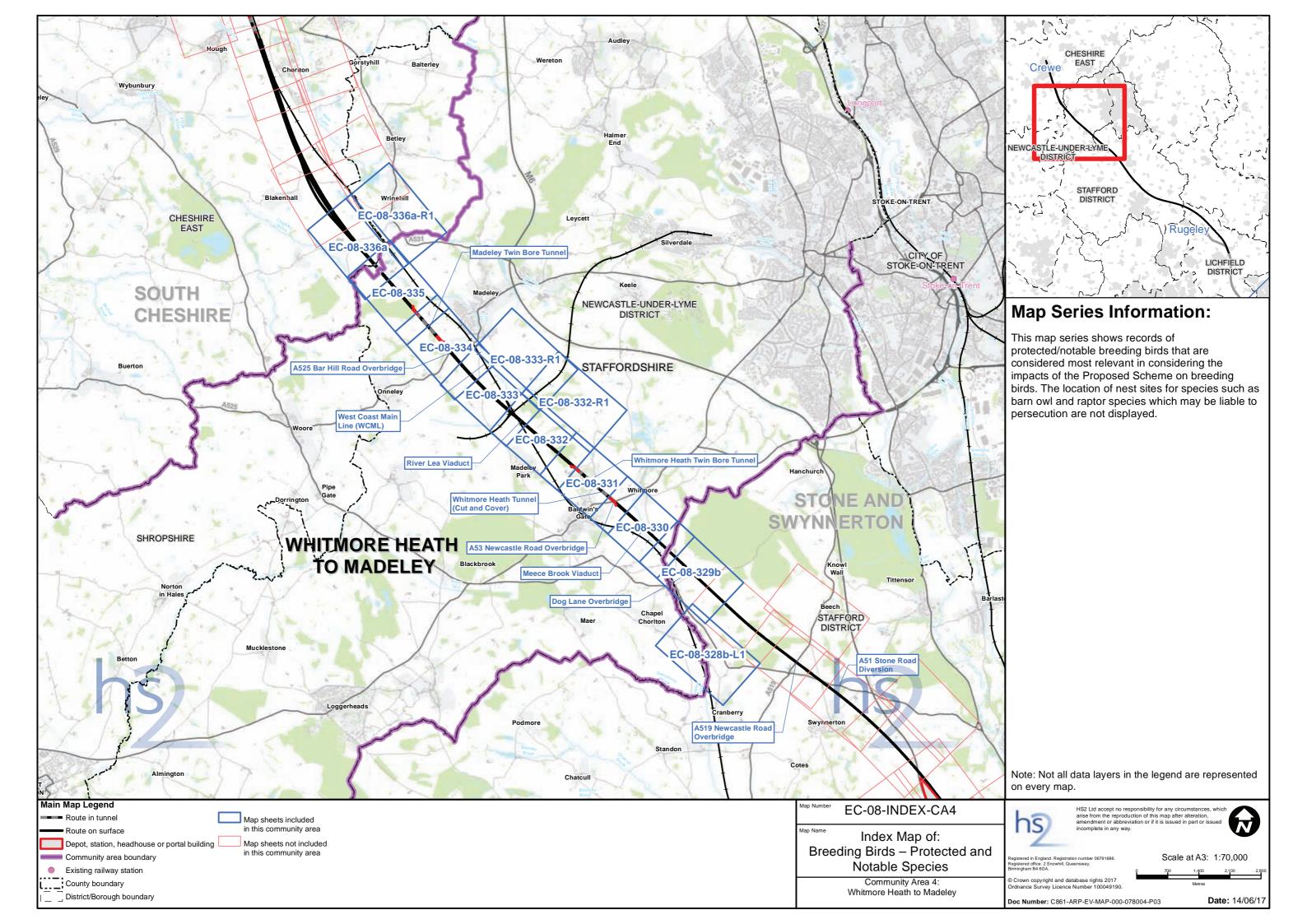


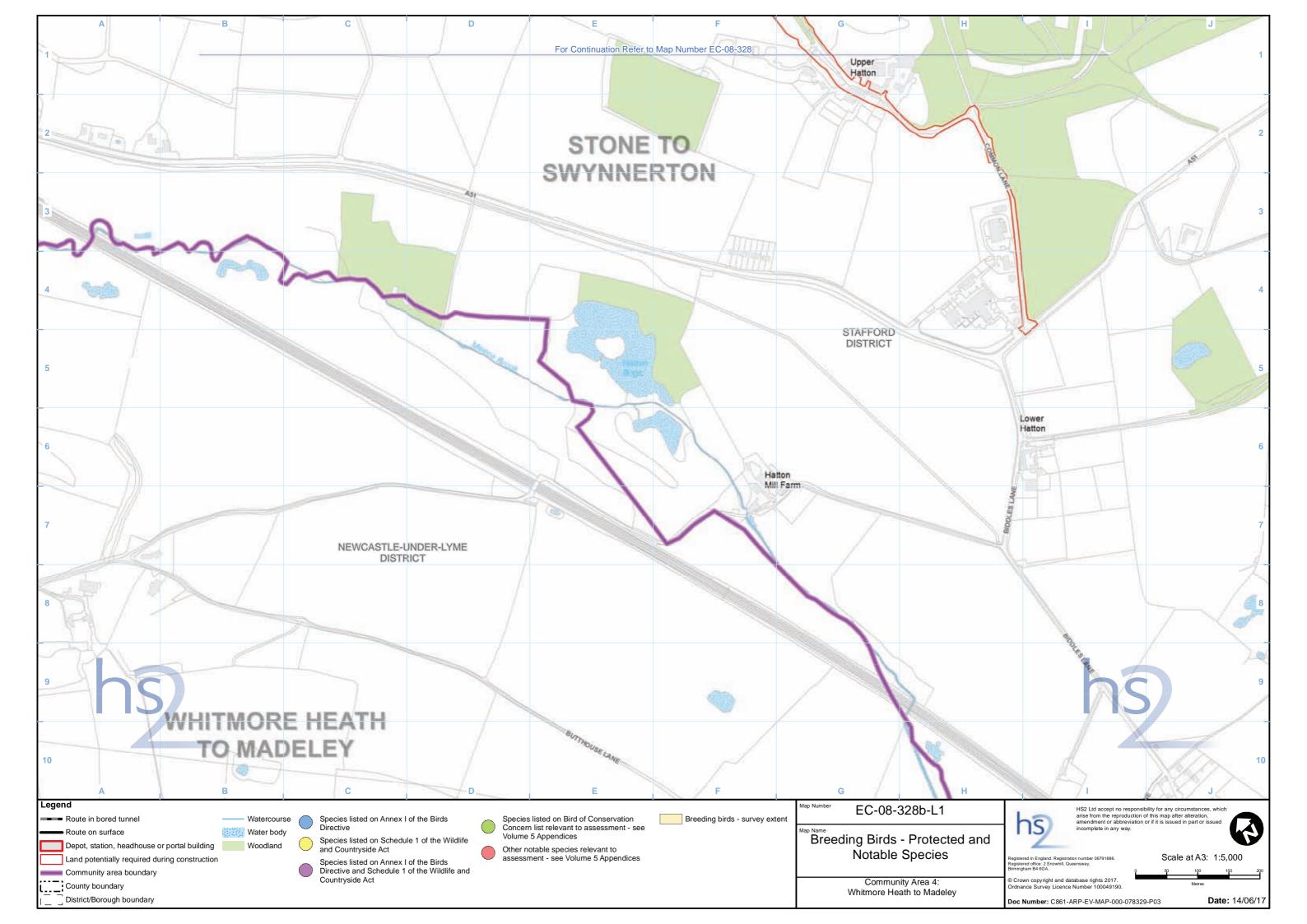


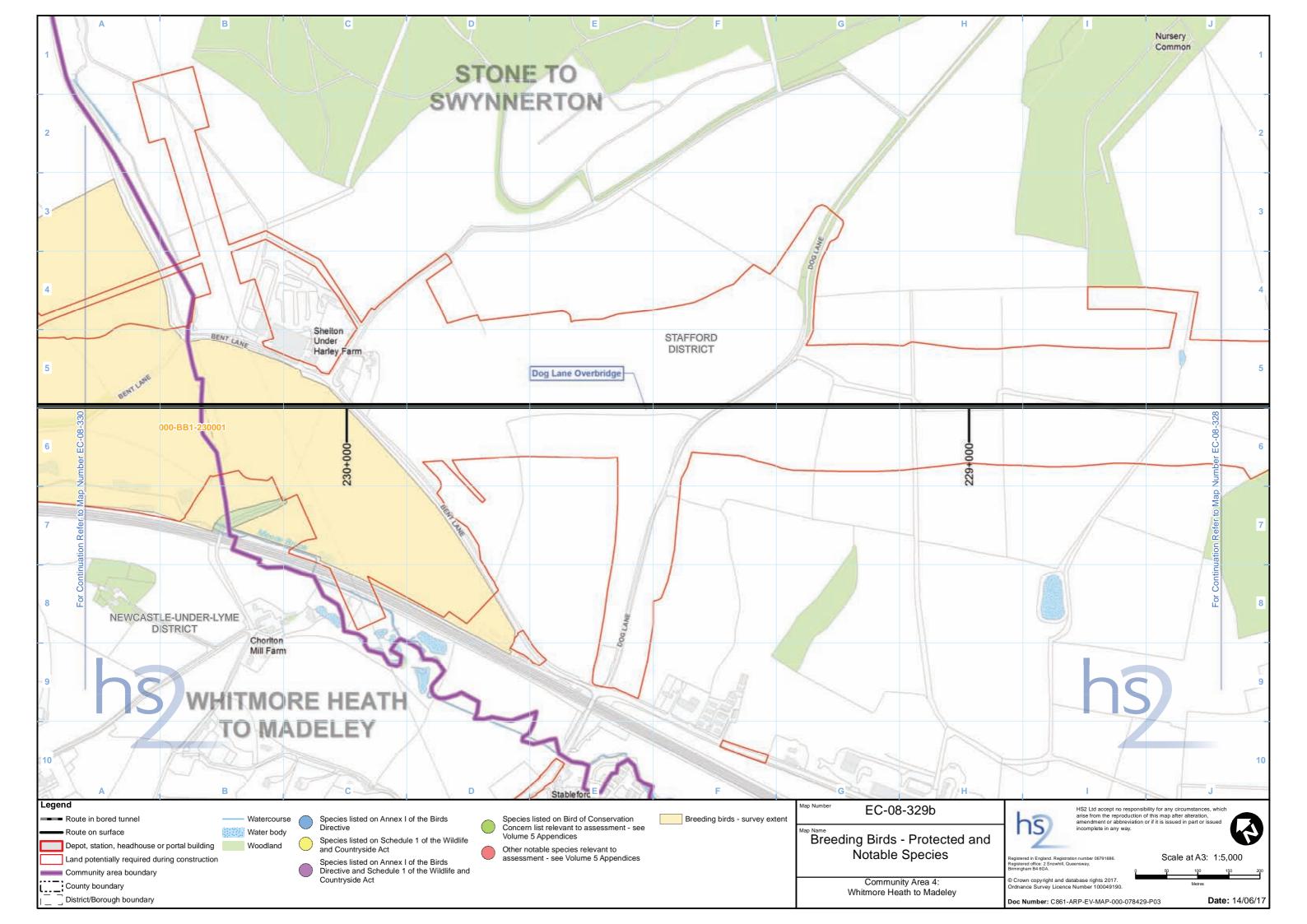


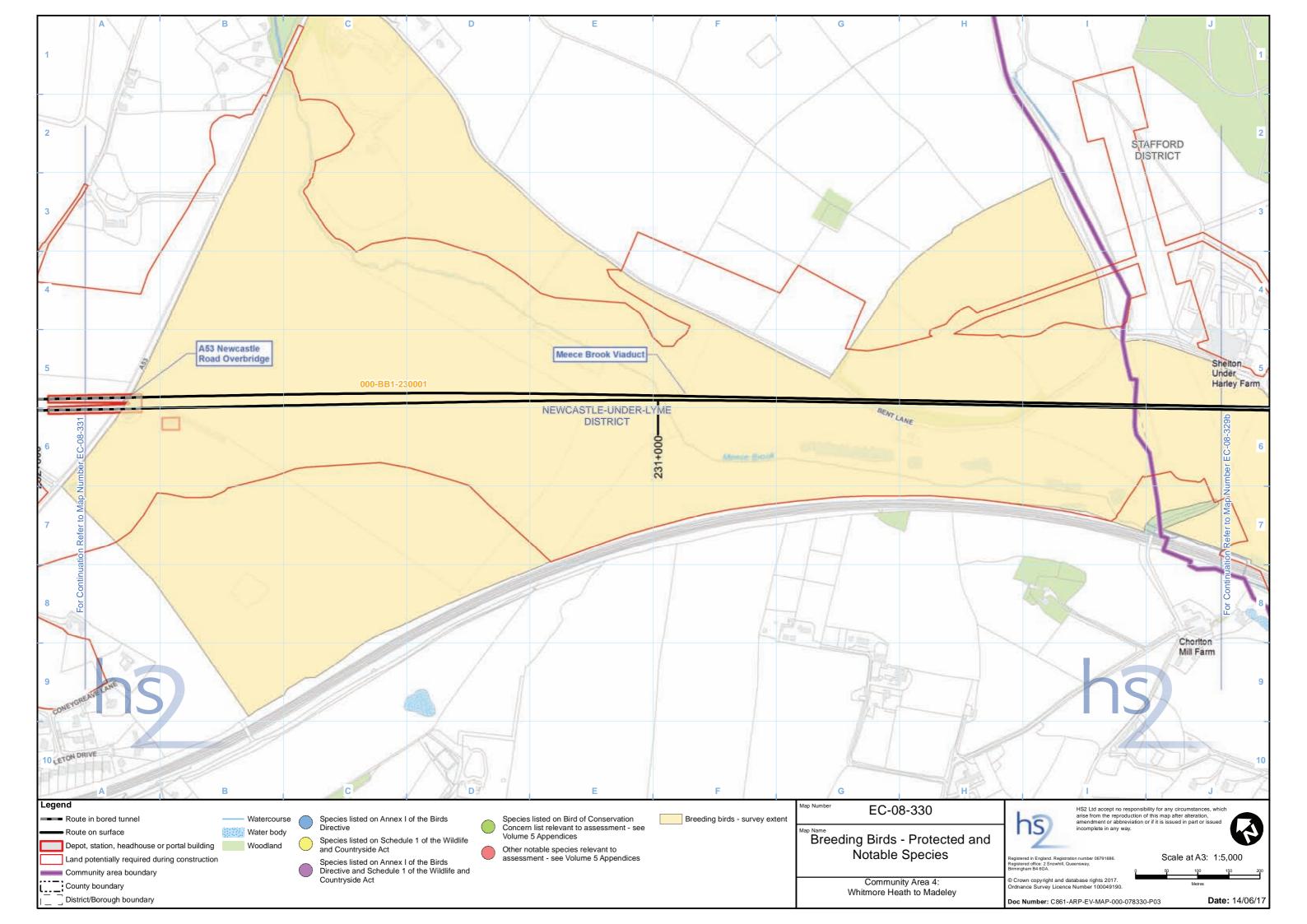


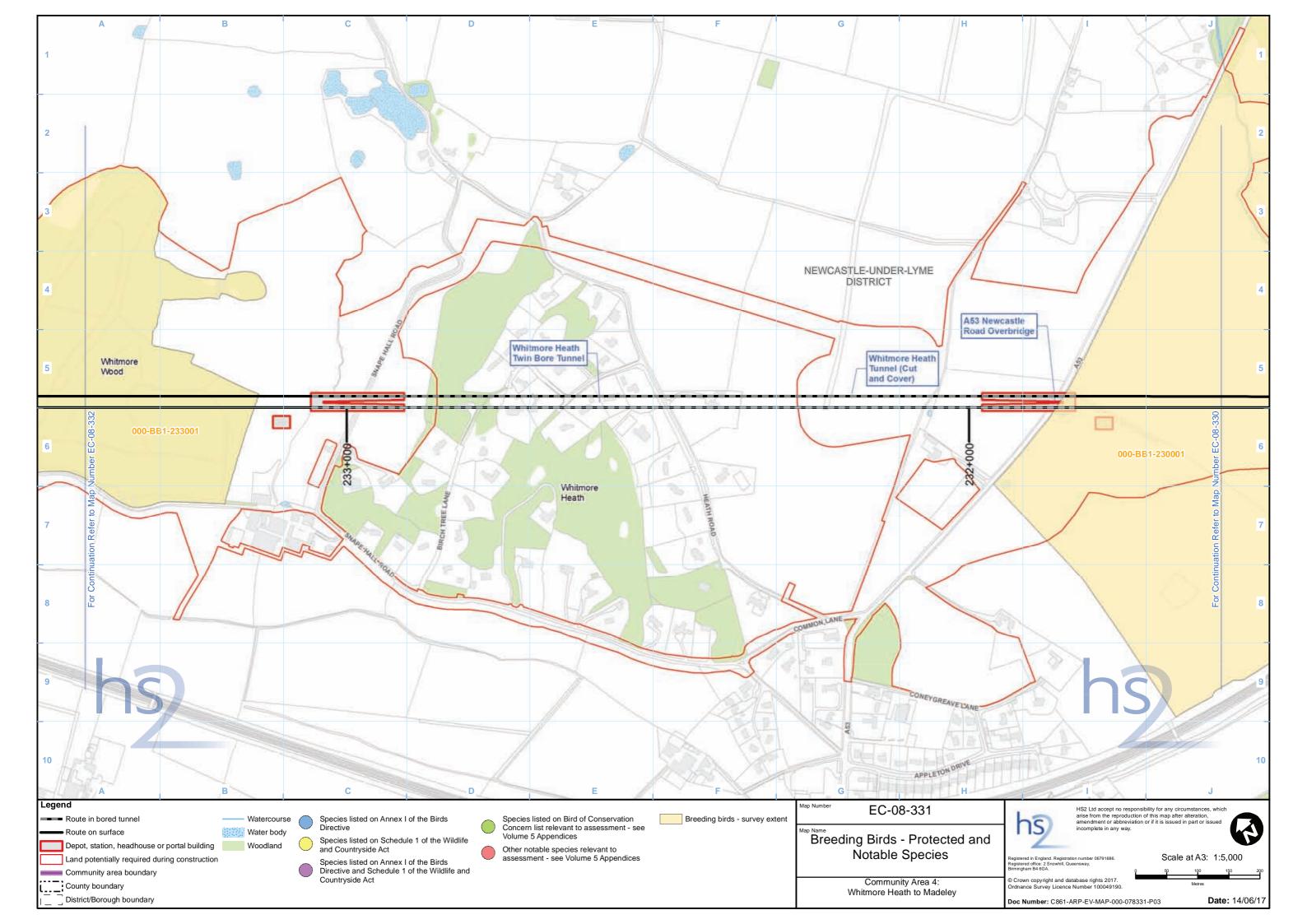
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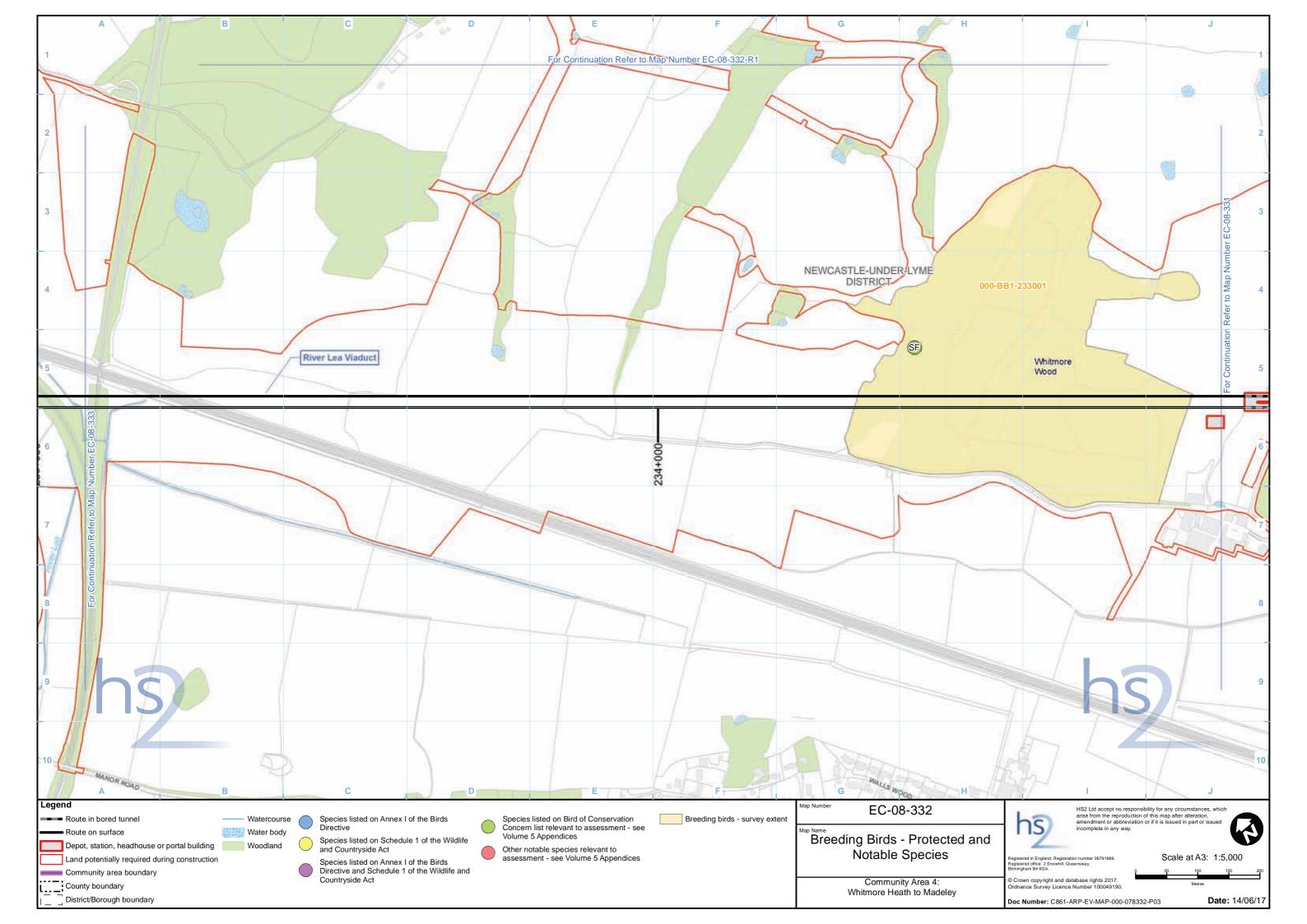


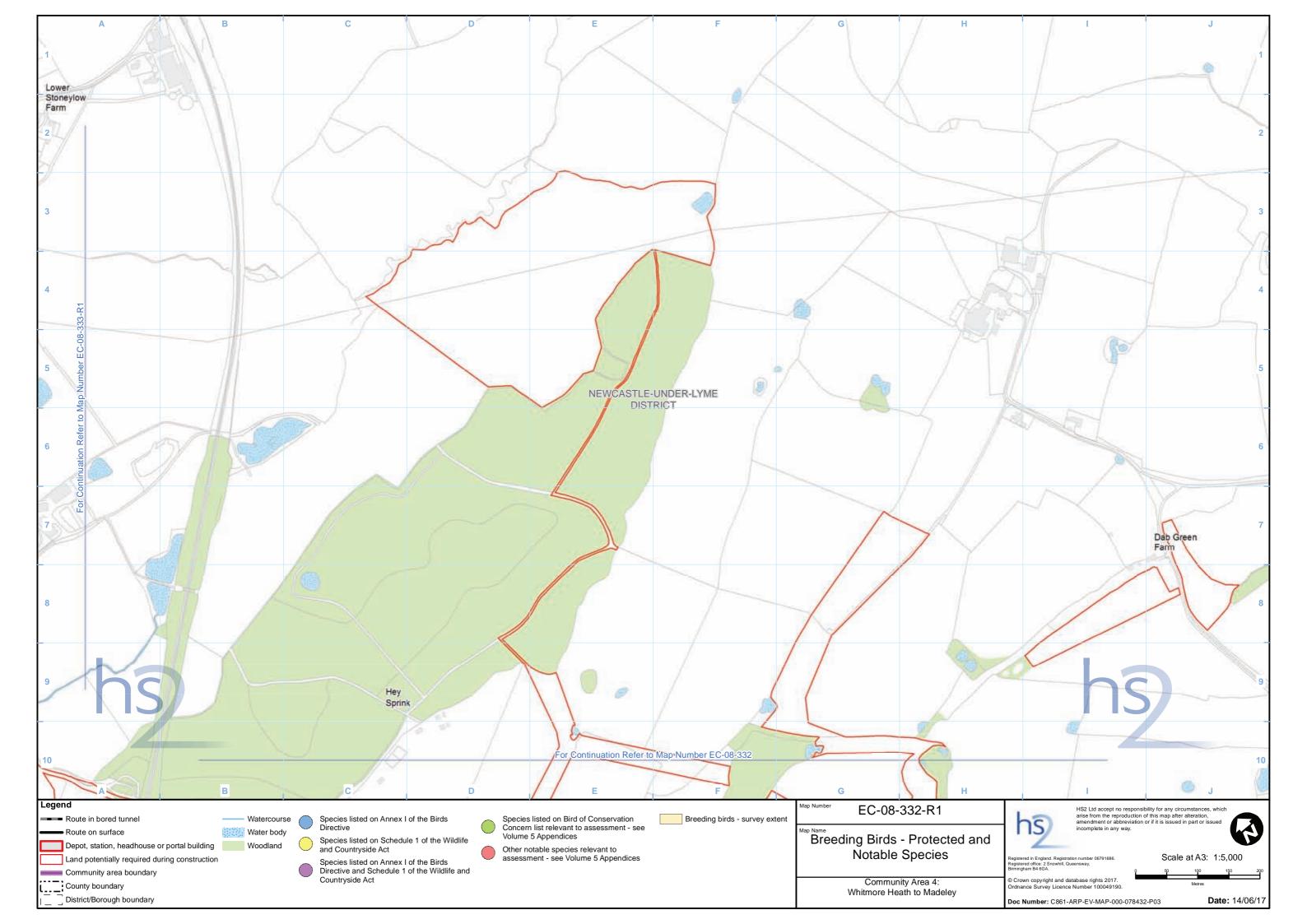


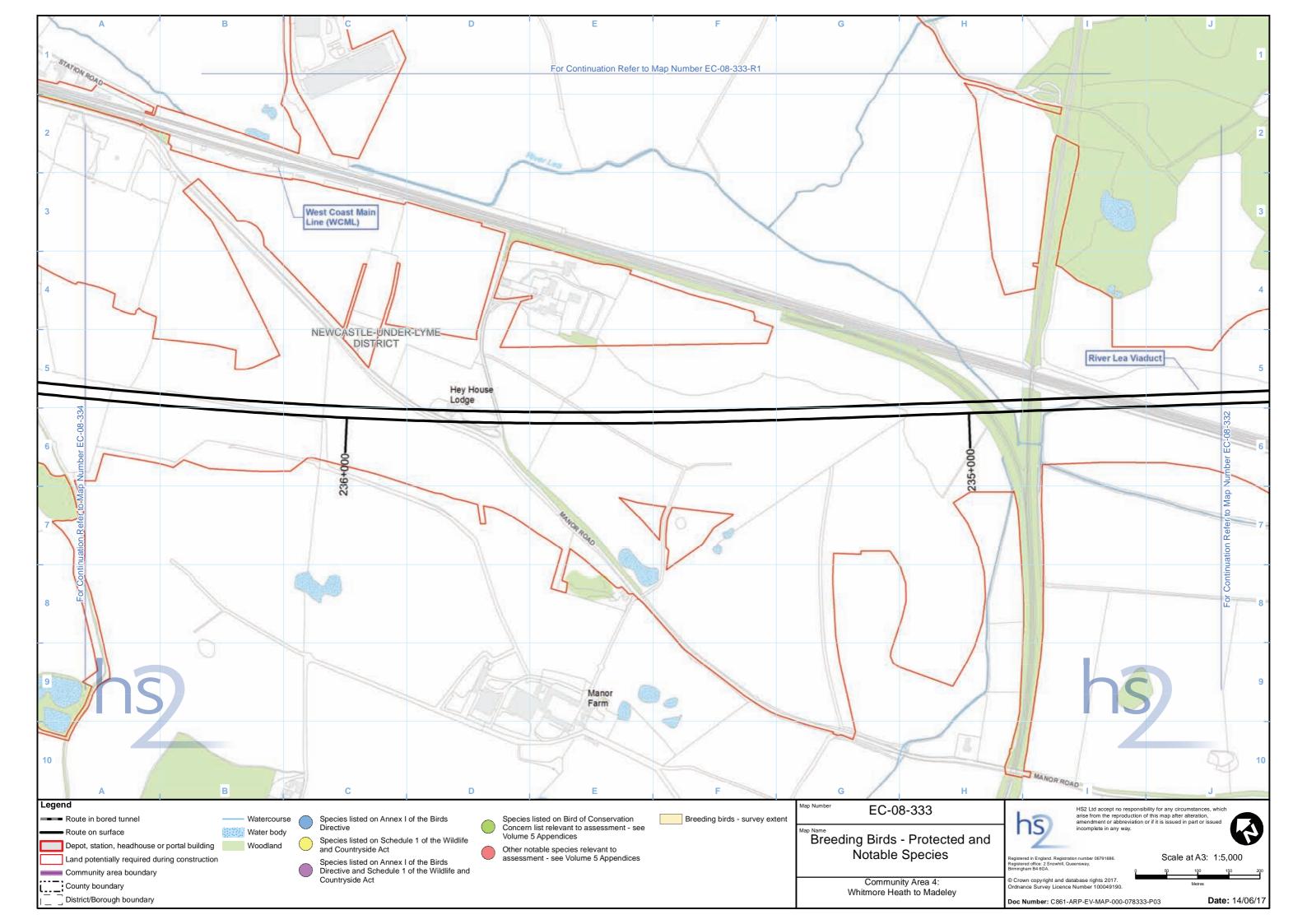


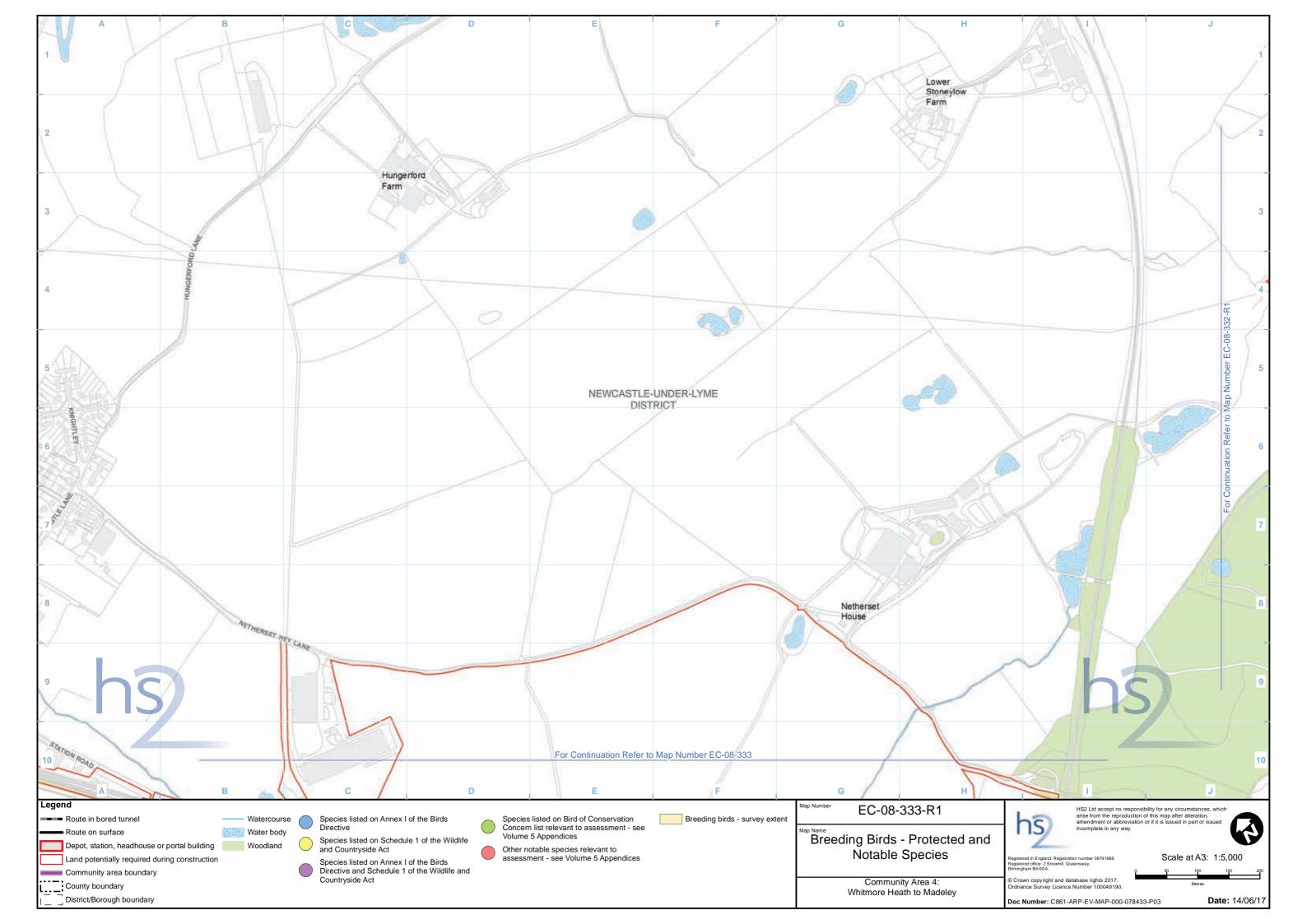


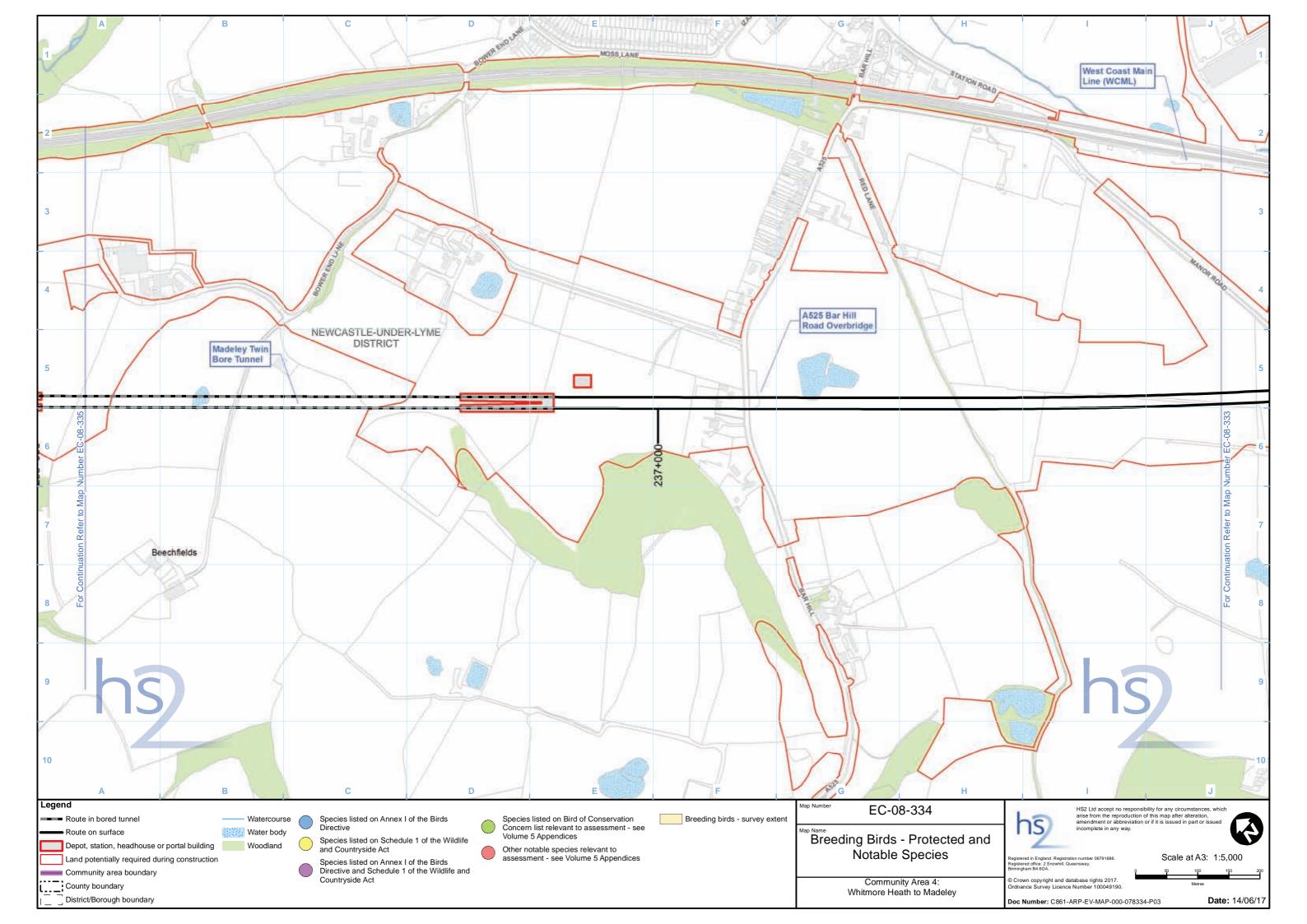


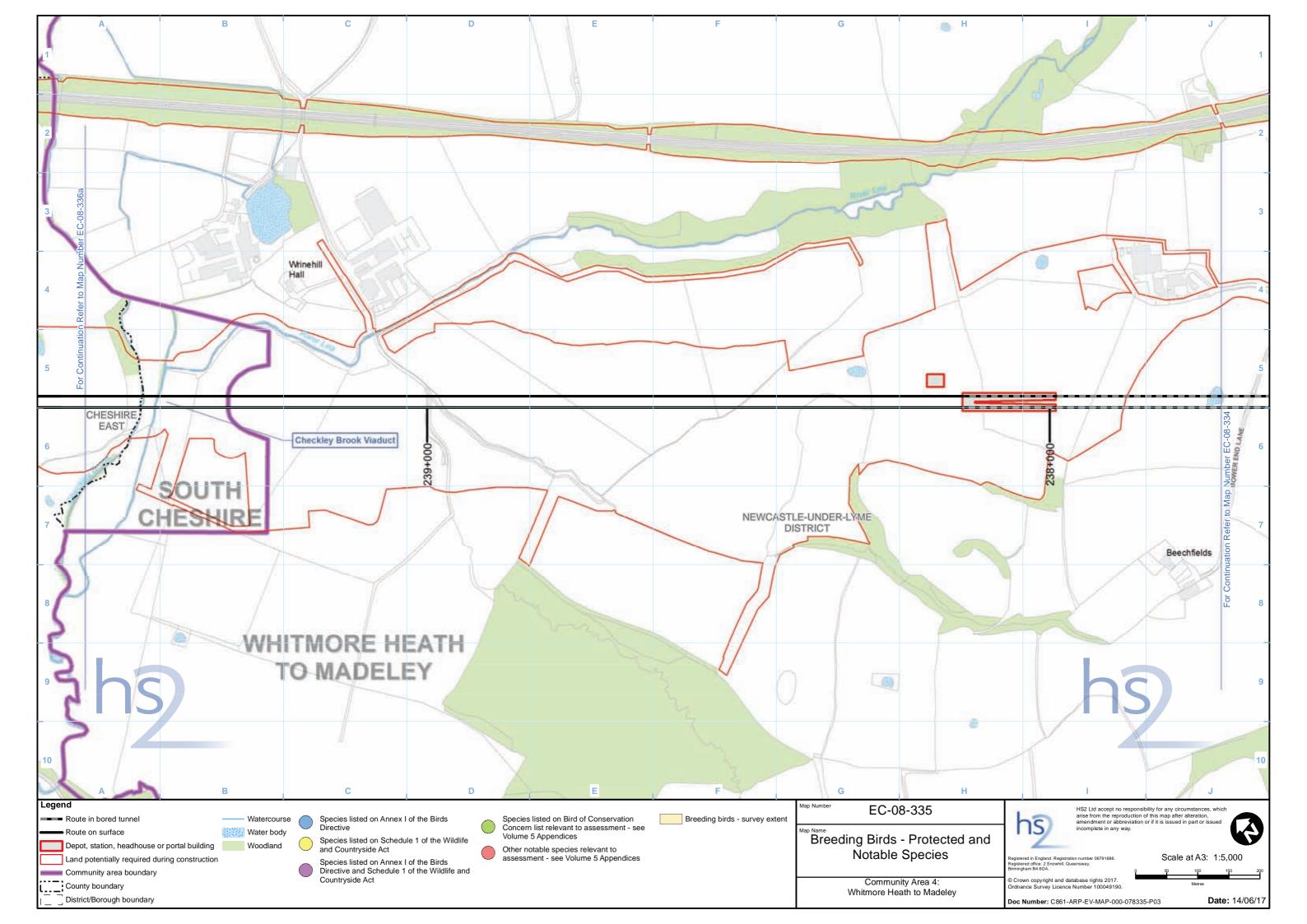


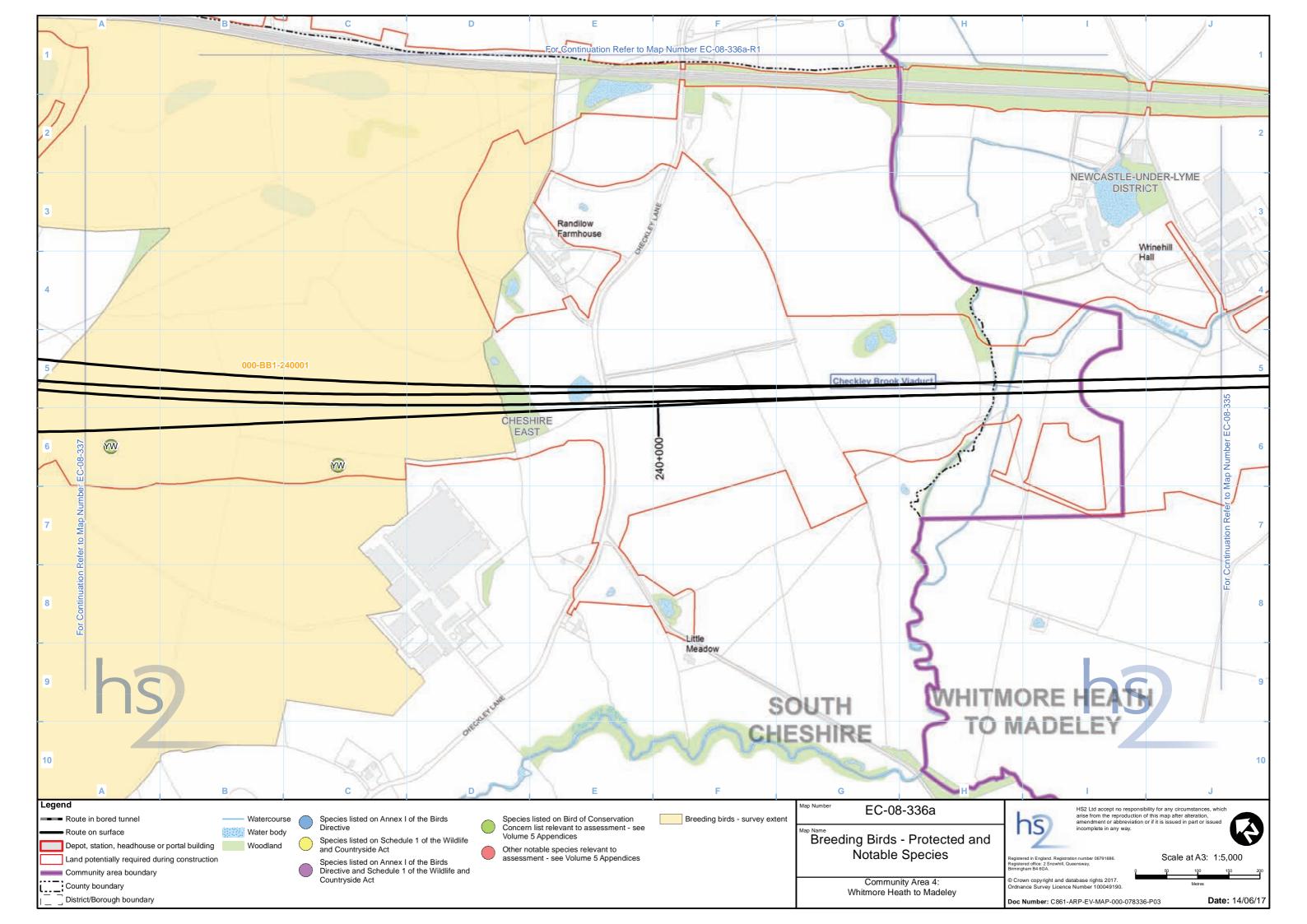


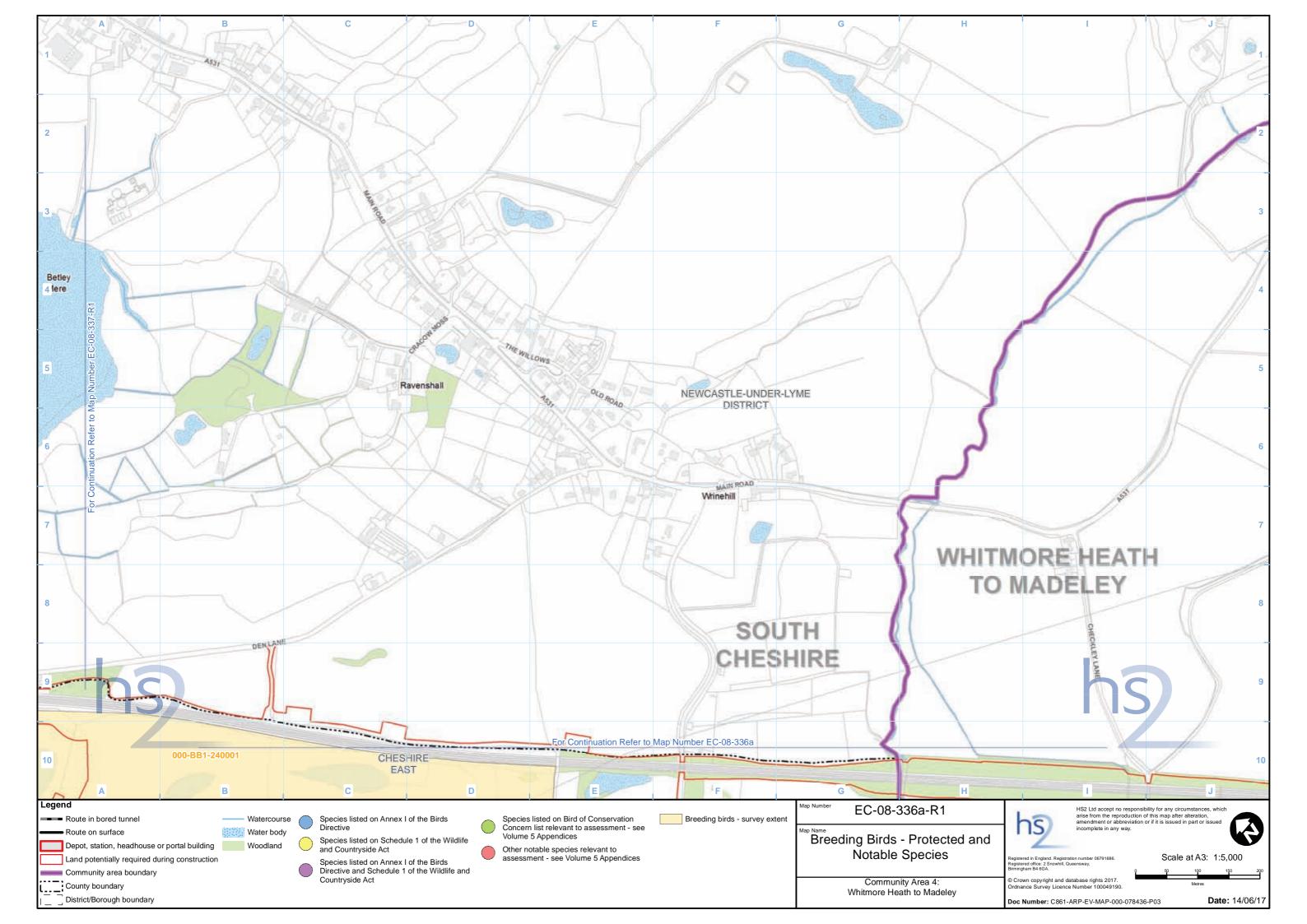




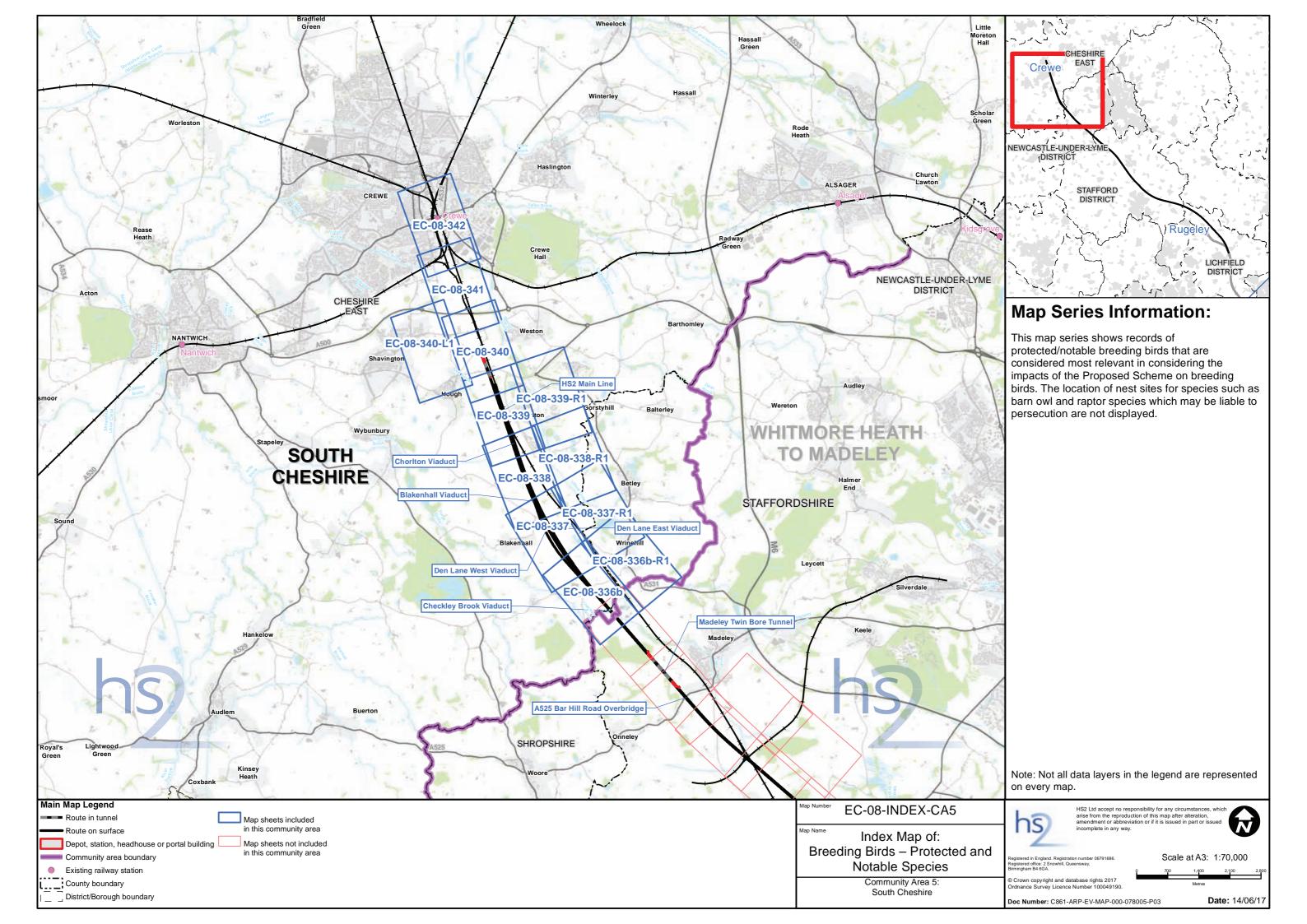


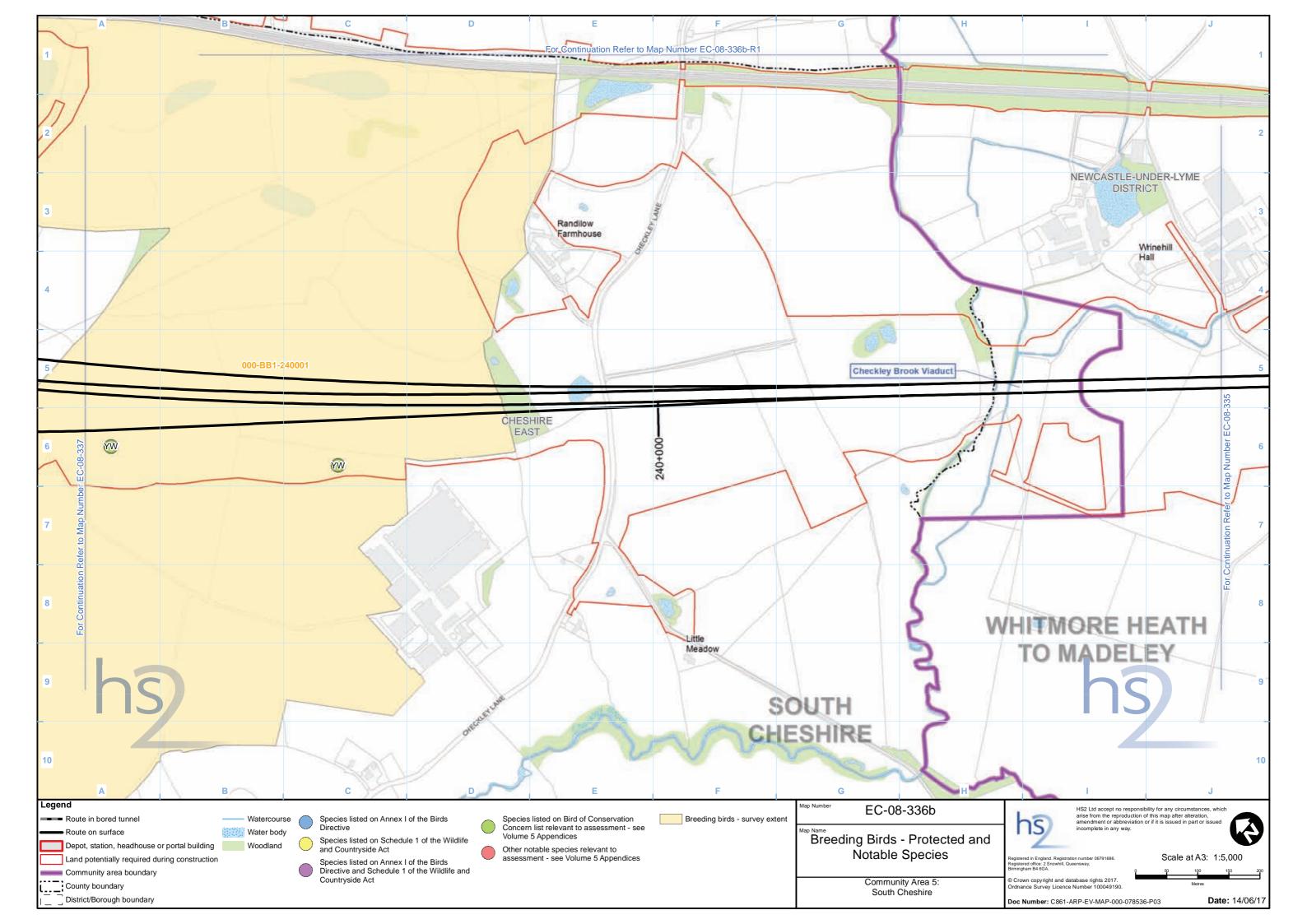


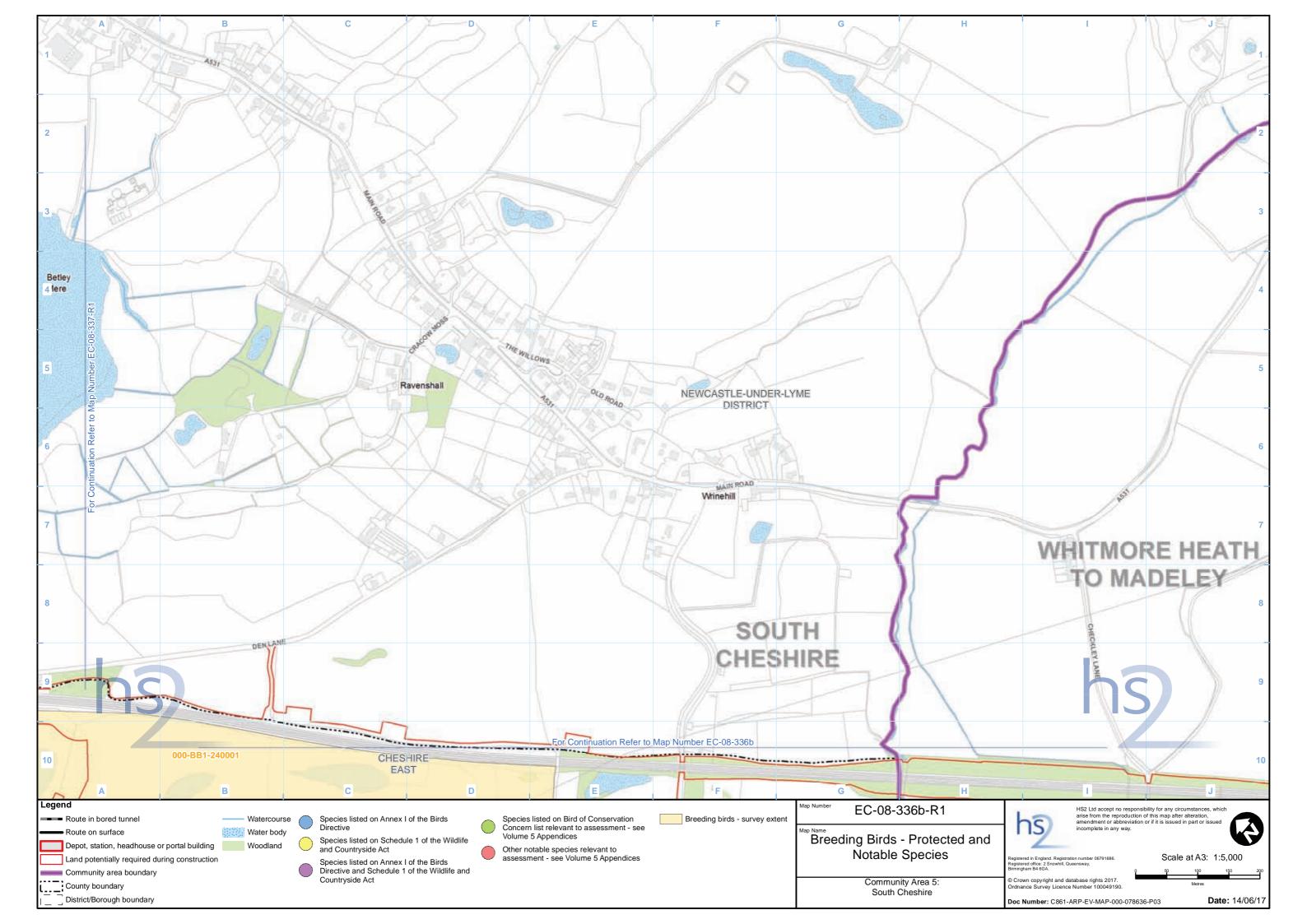


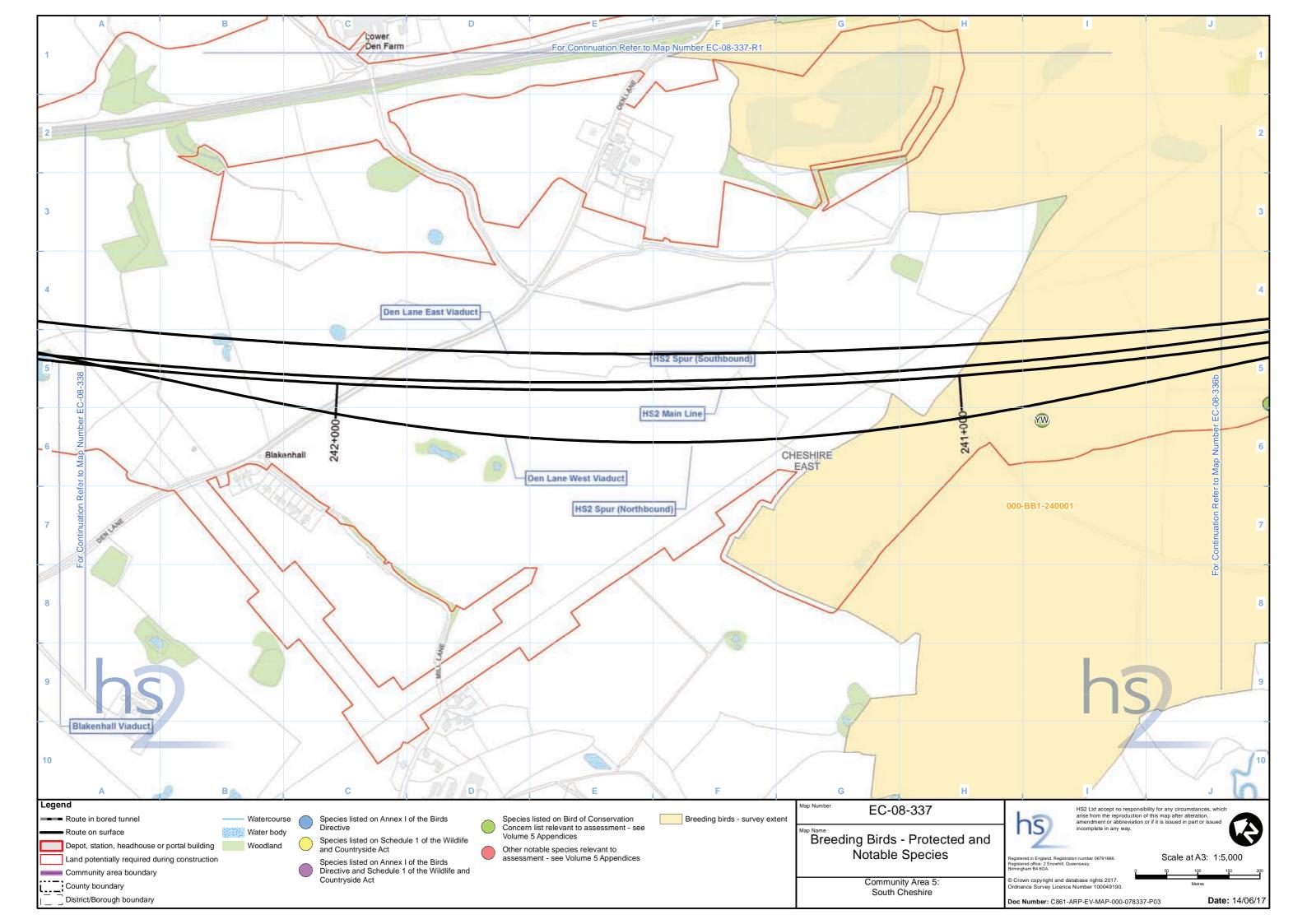


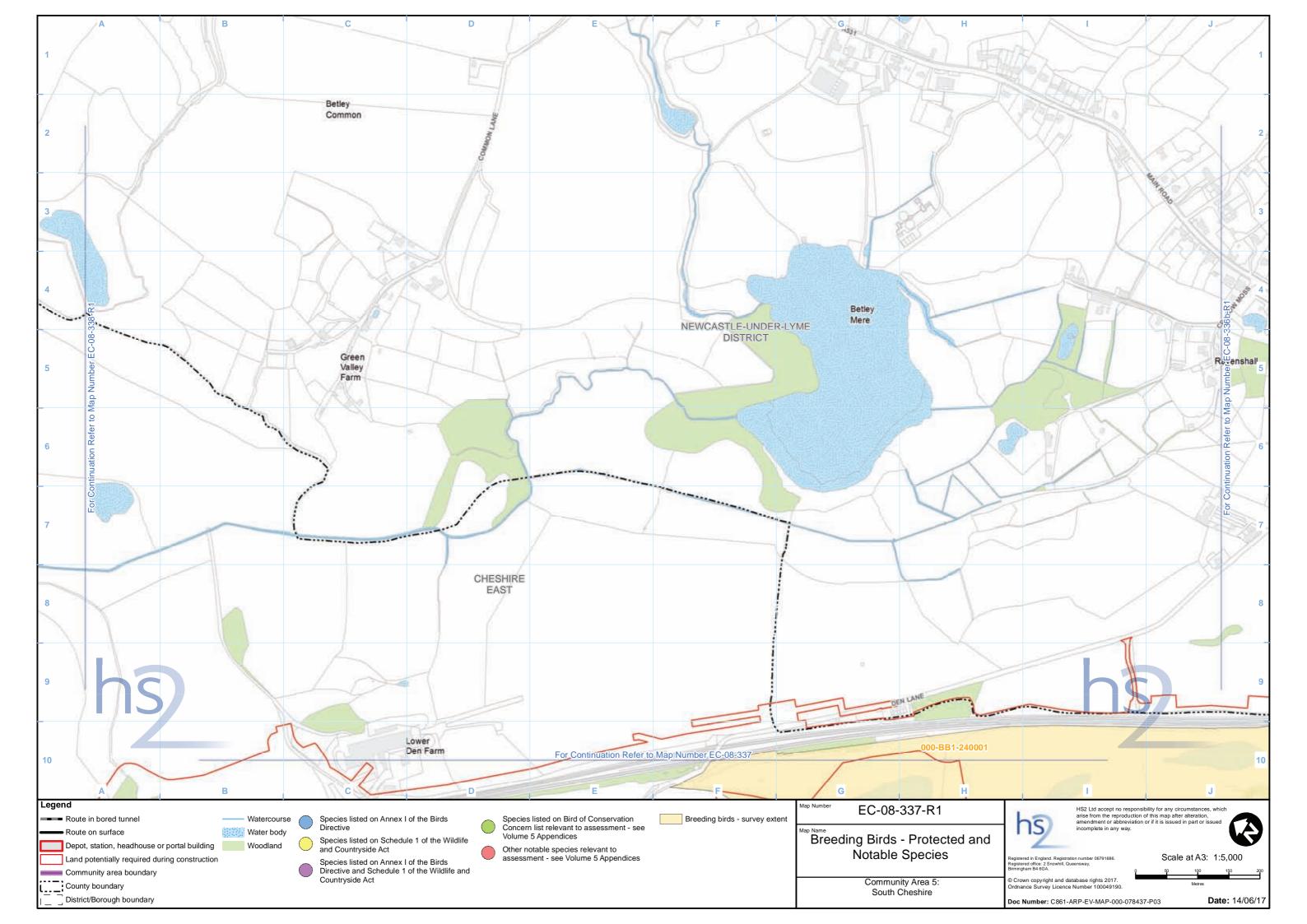
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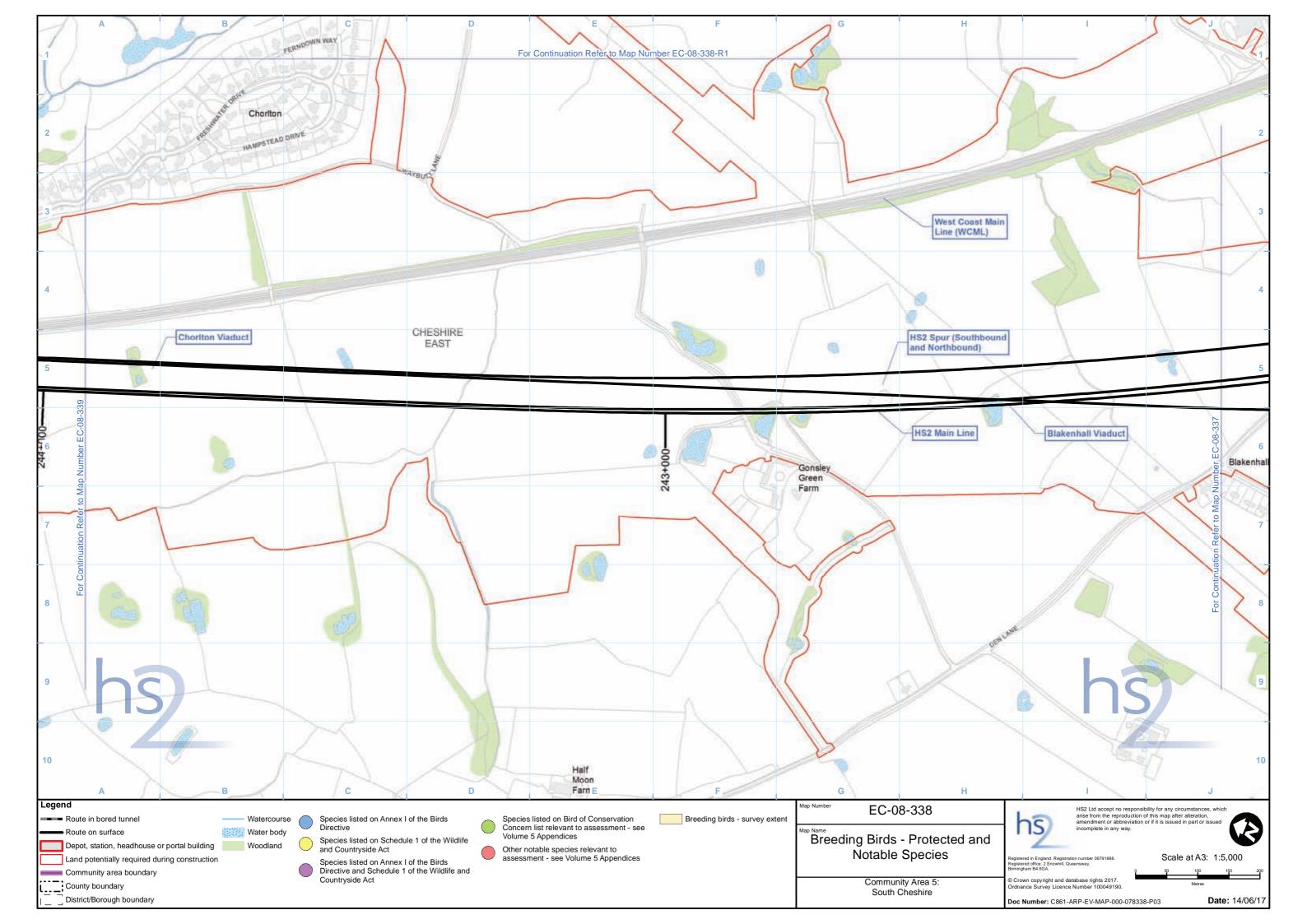


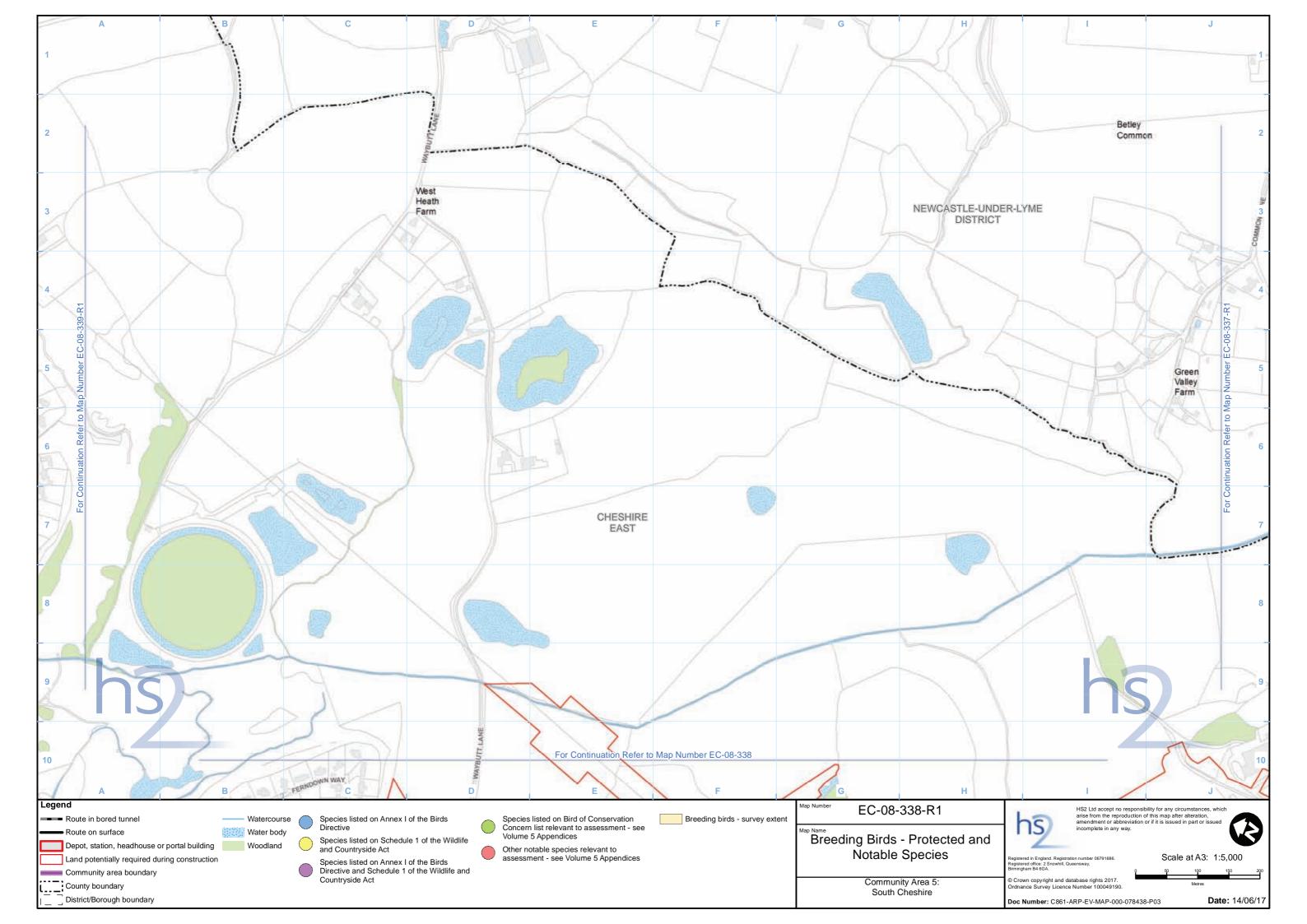


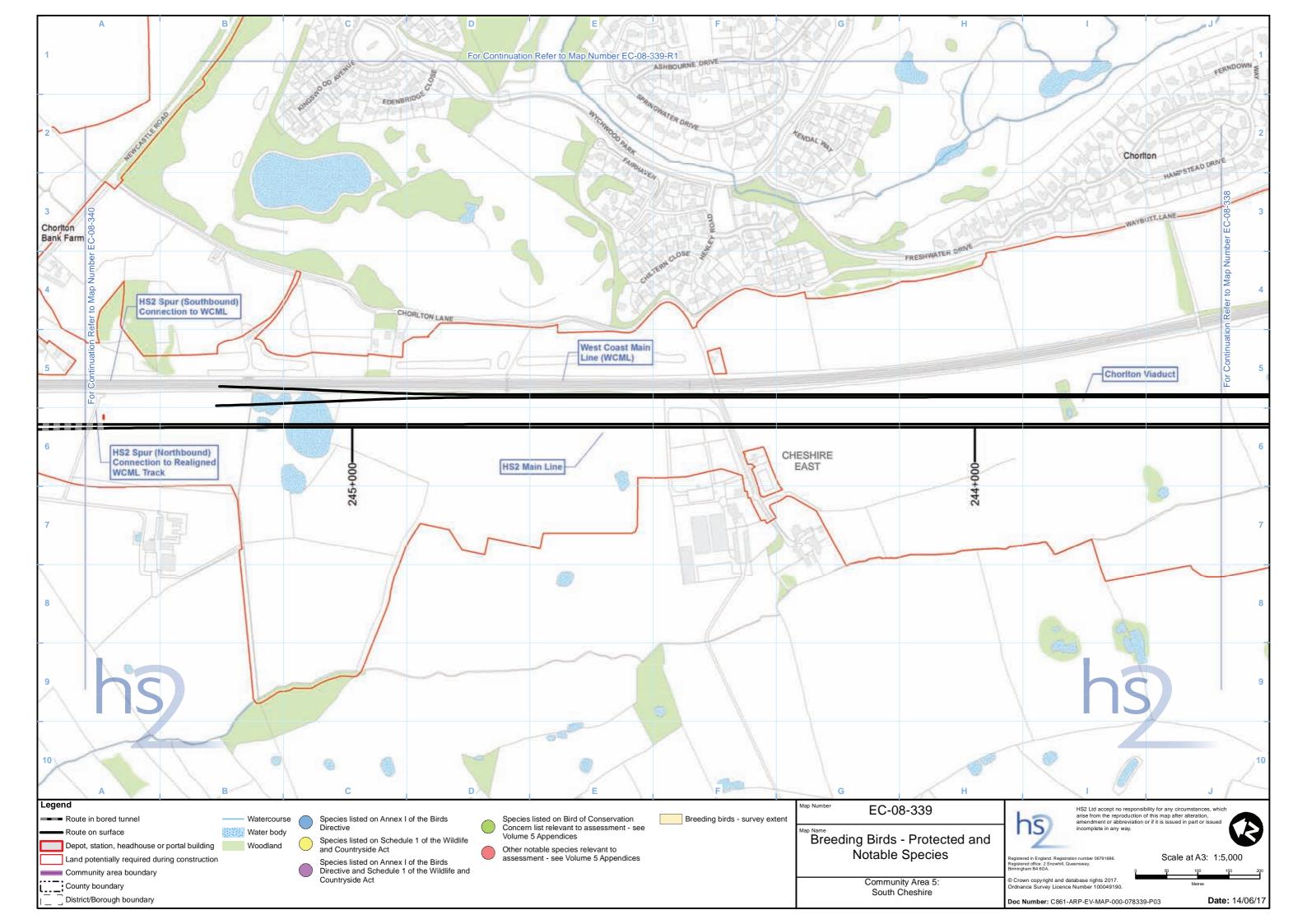


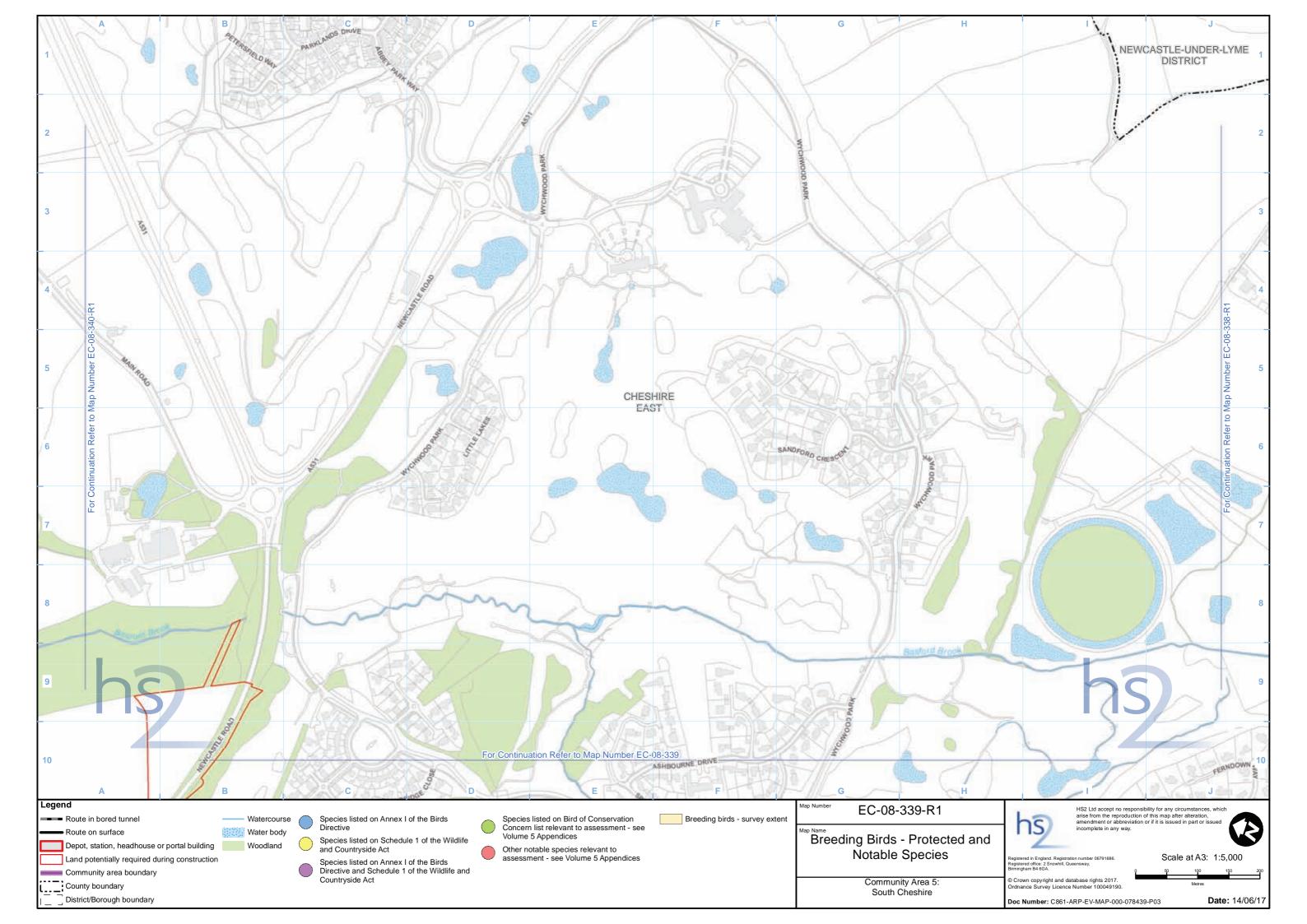


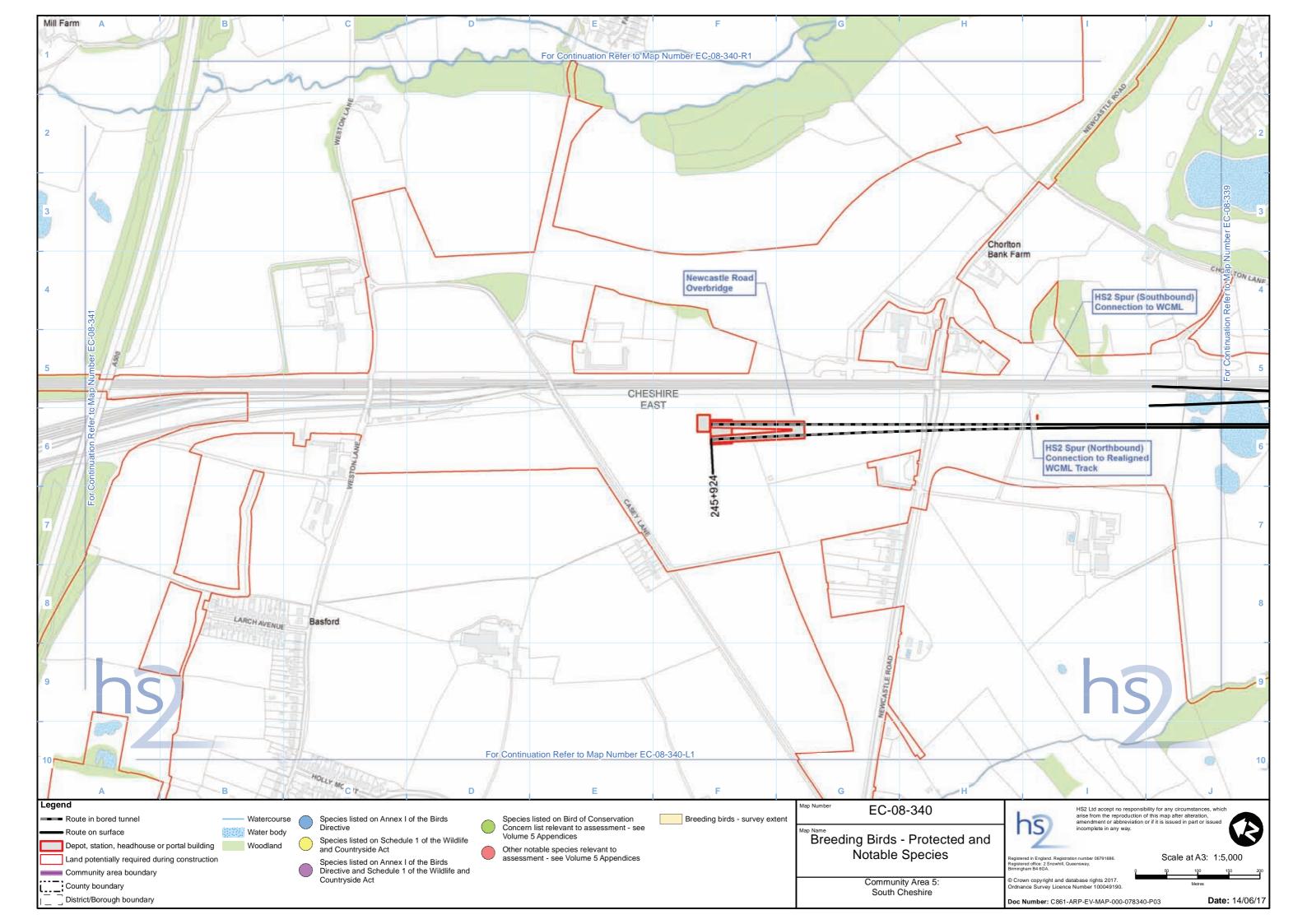


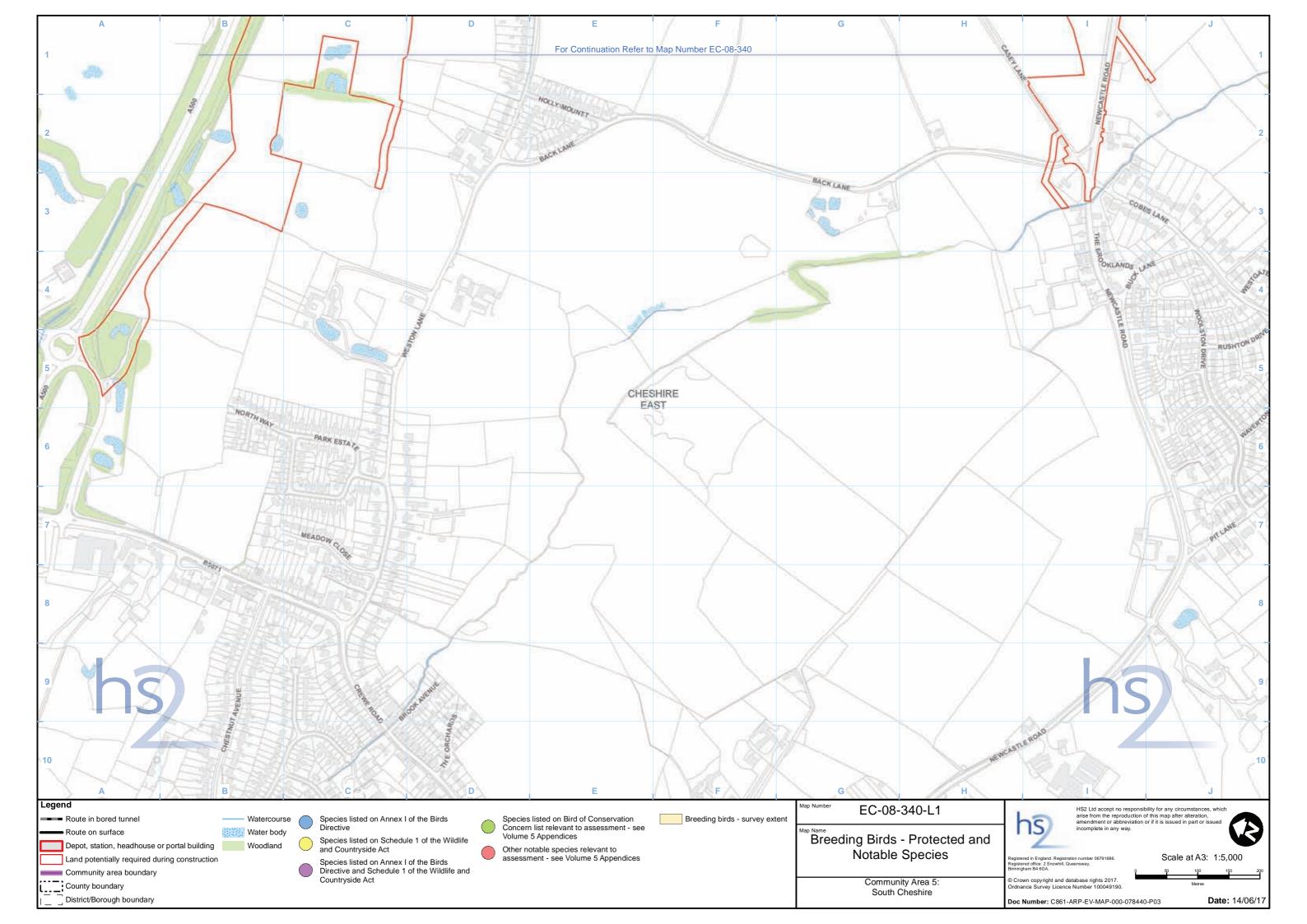


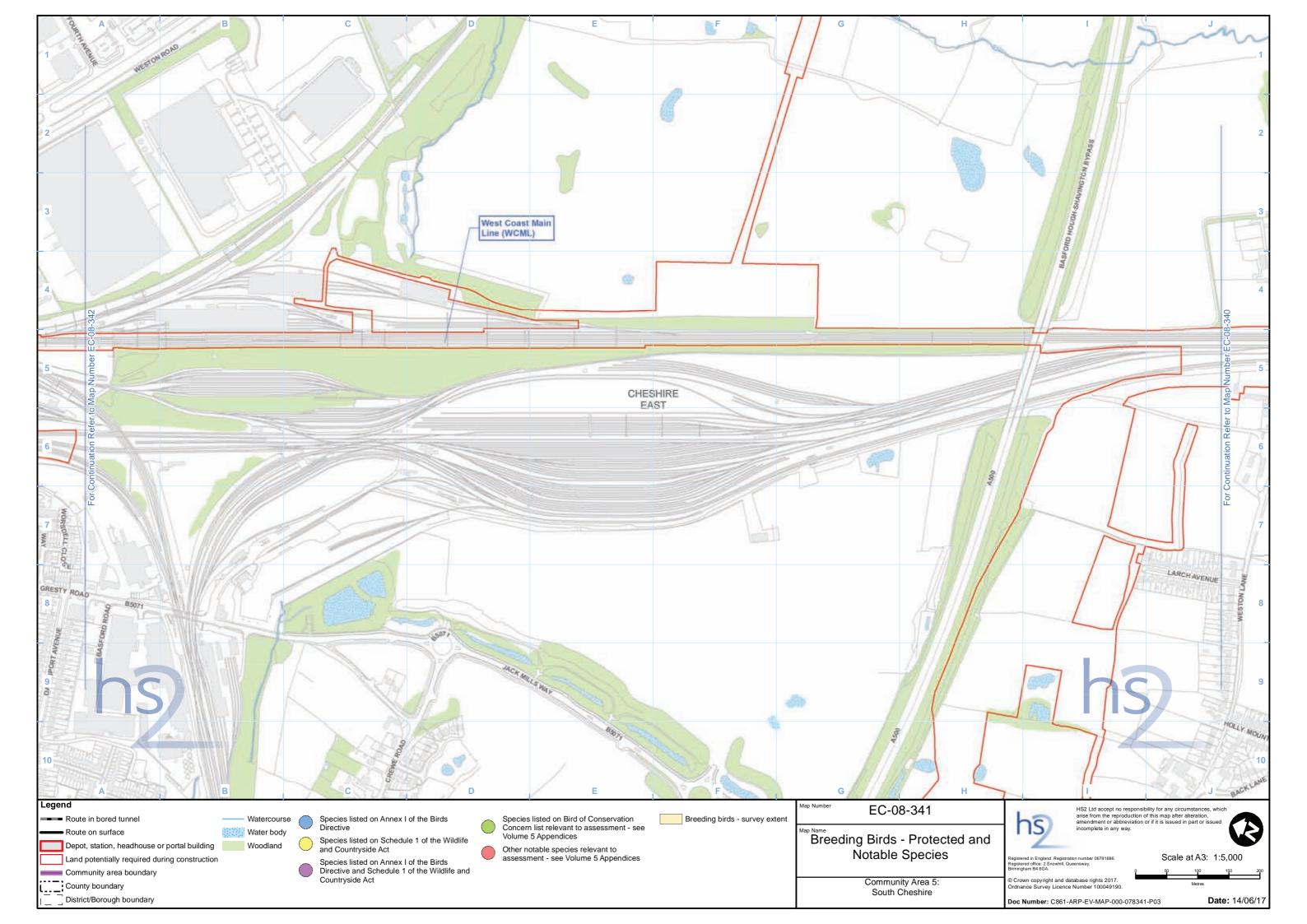


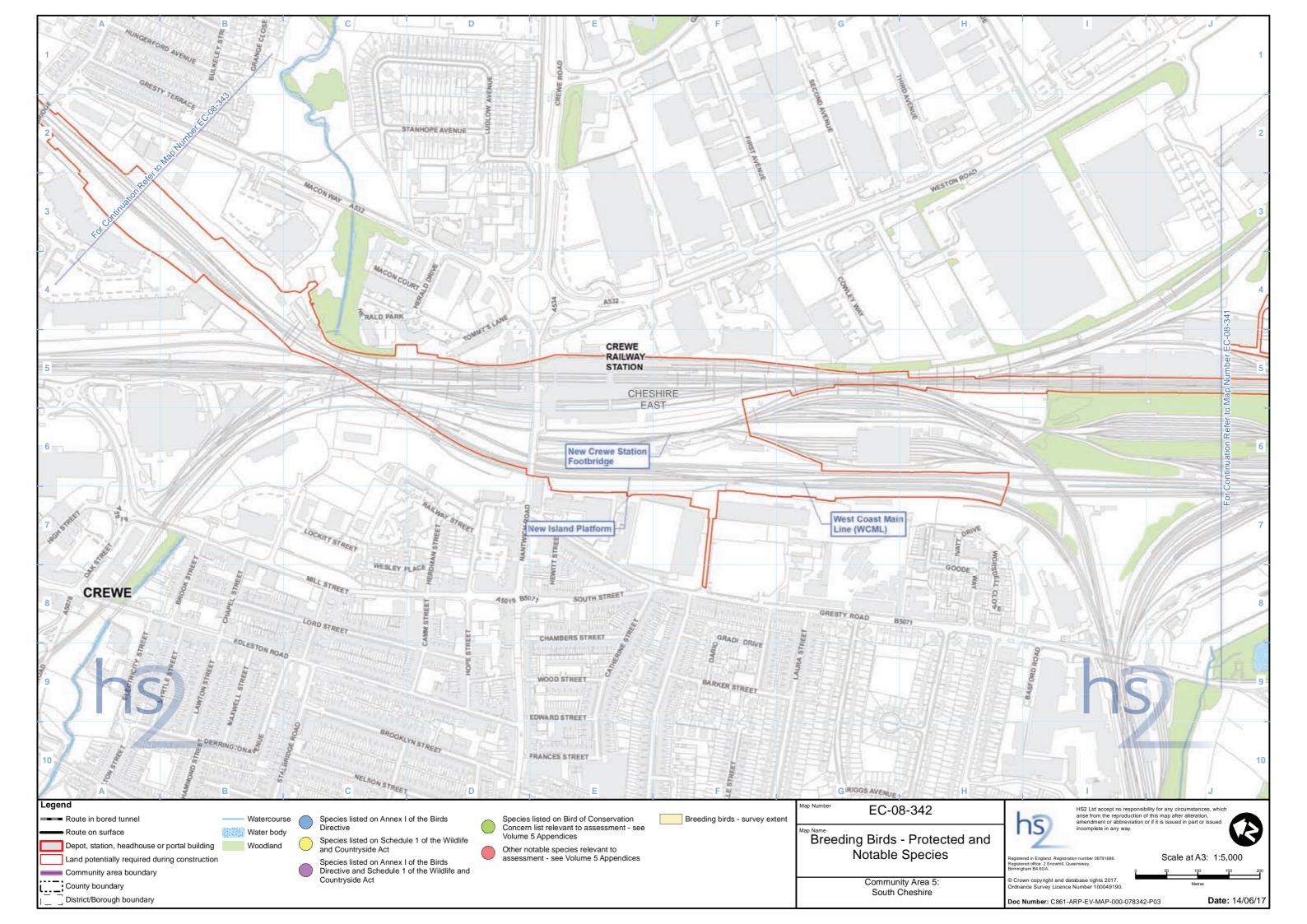




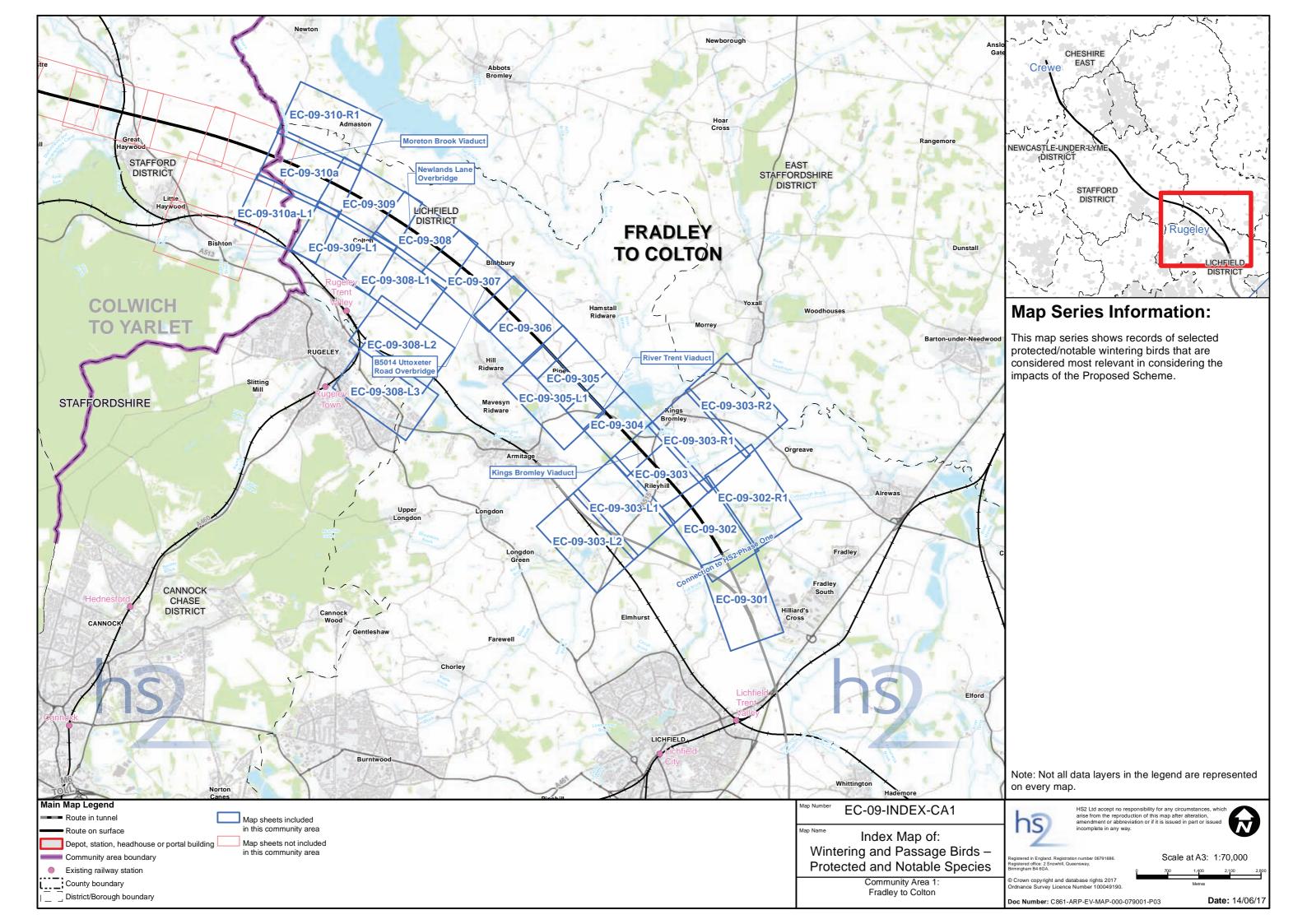


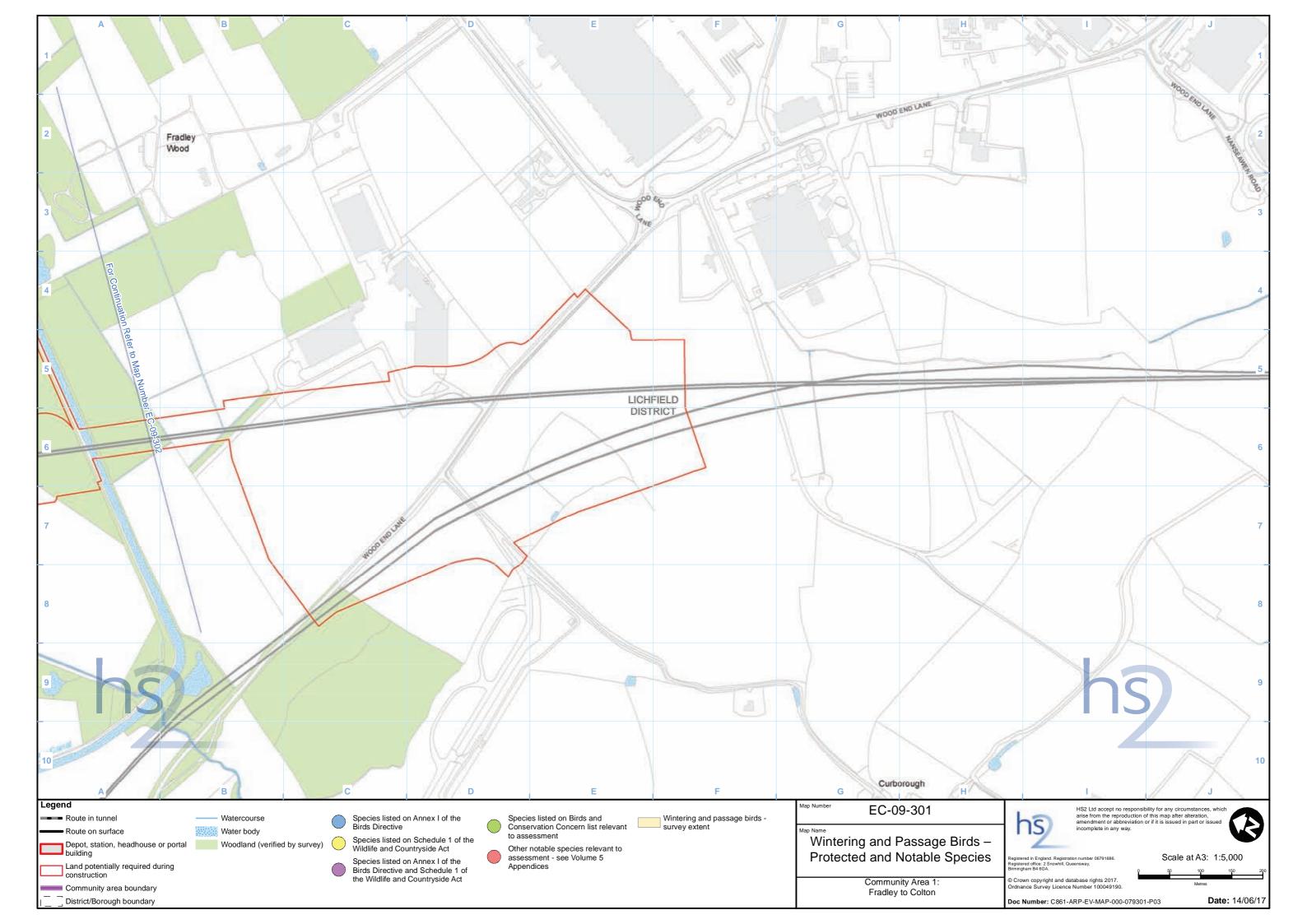


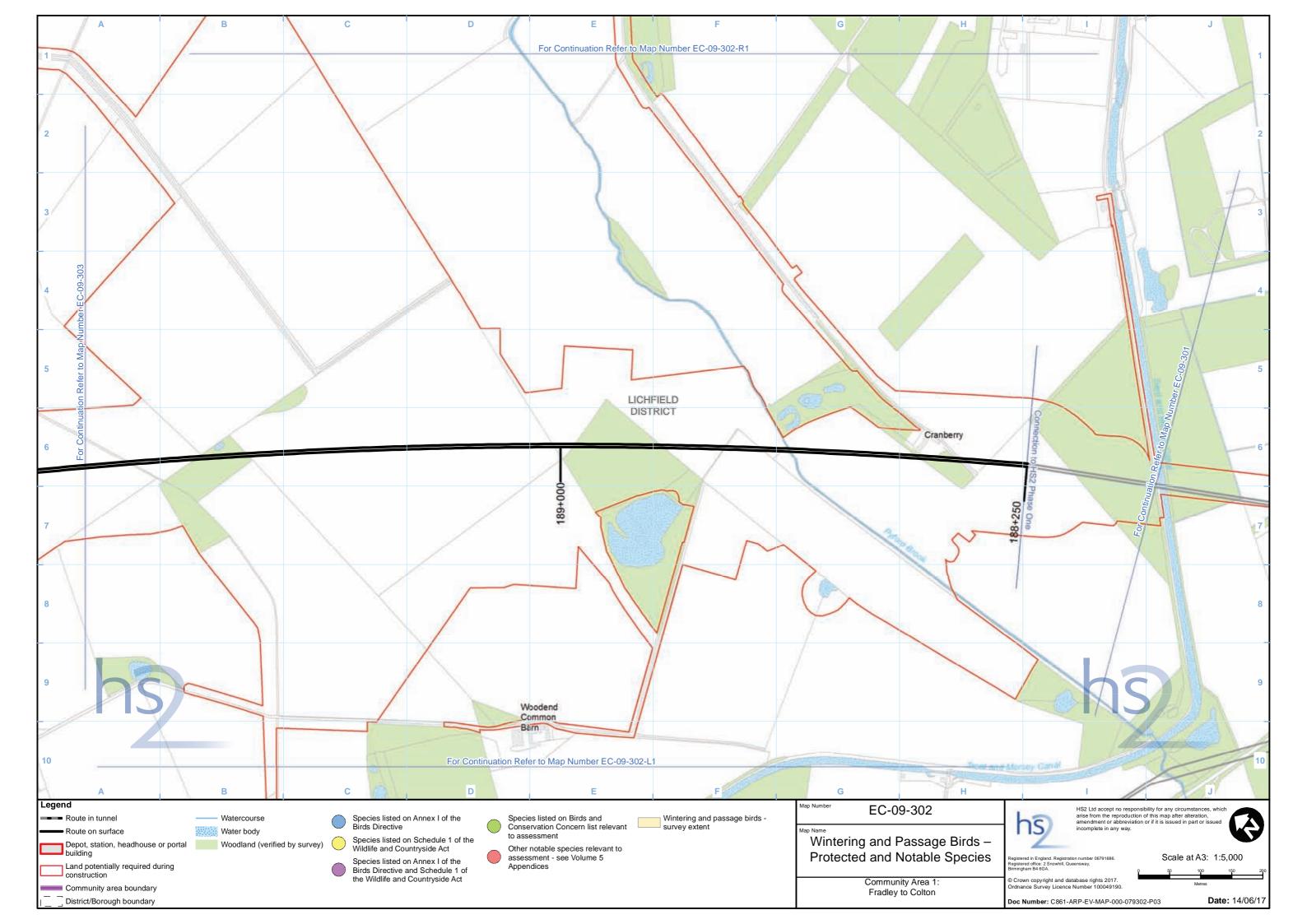


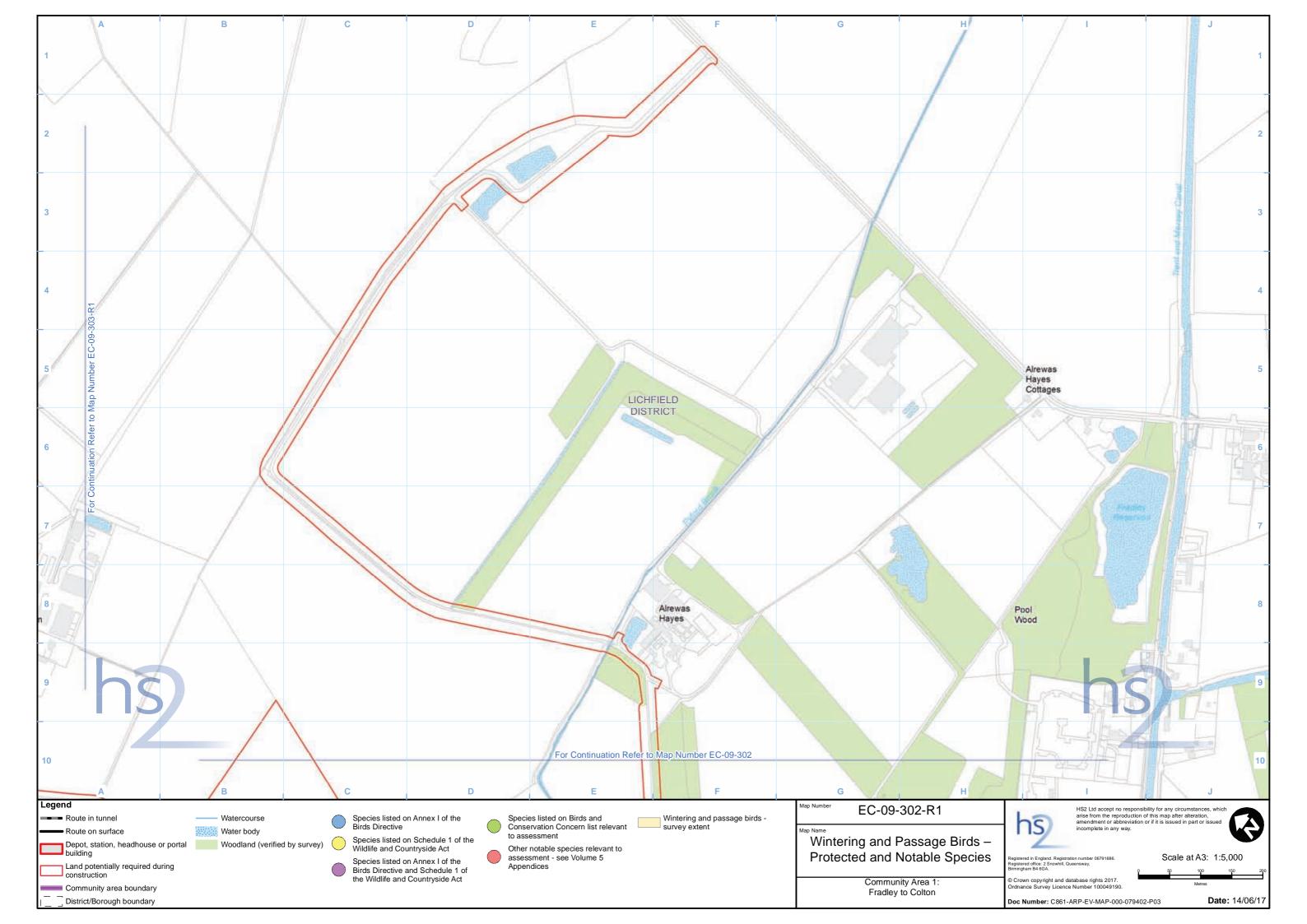


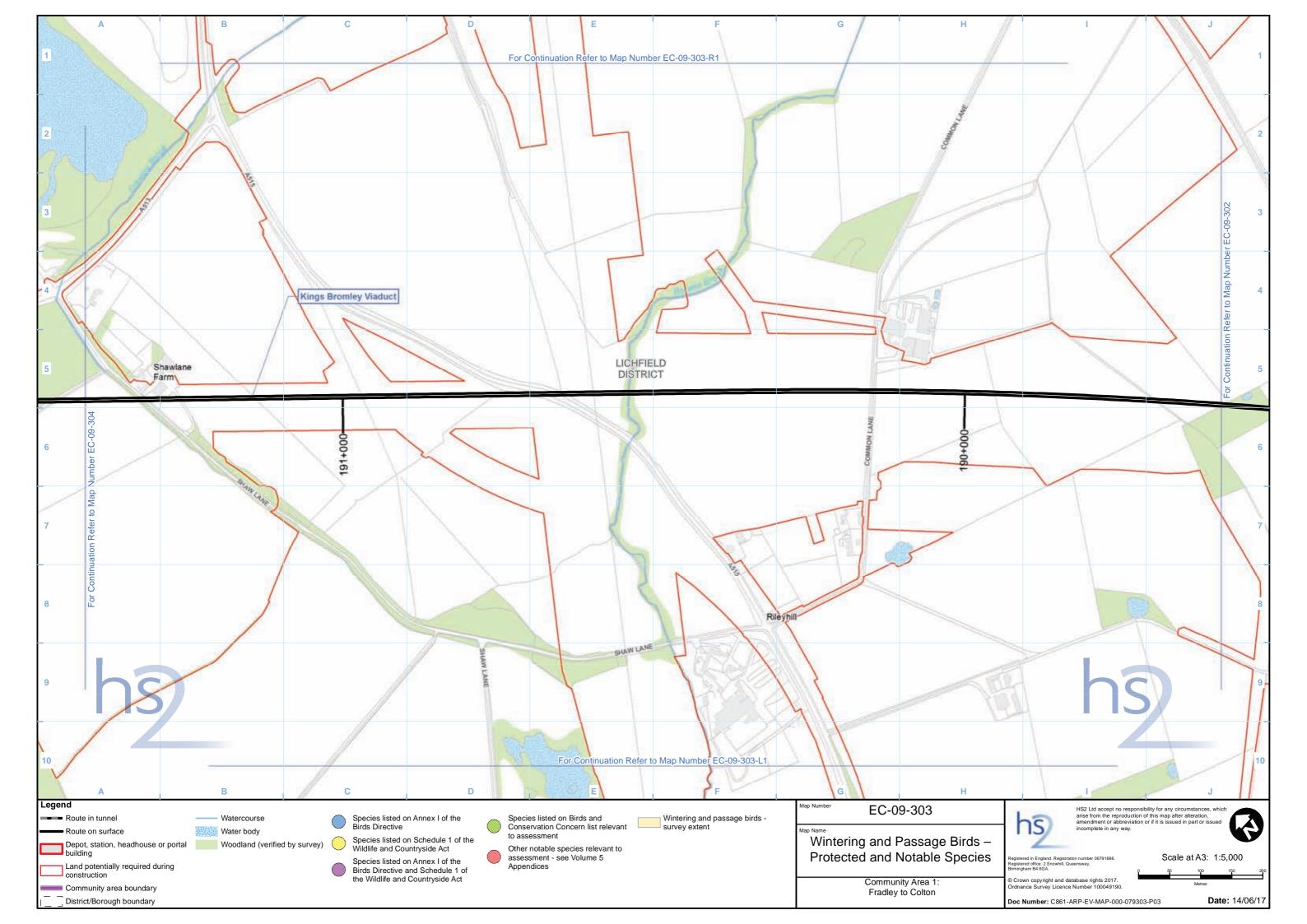
High Speed Two Phase 2a (West Midlands-Crewe)
Background Information and Data
EC-09 - Wintering and Passage Birds – Protected and Notable Species

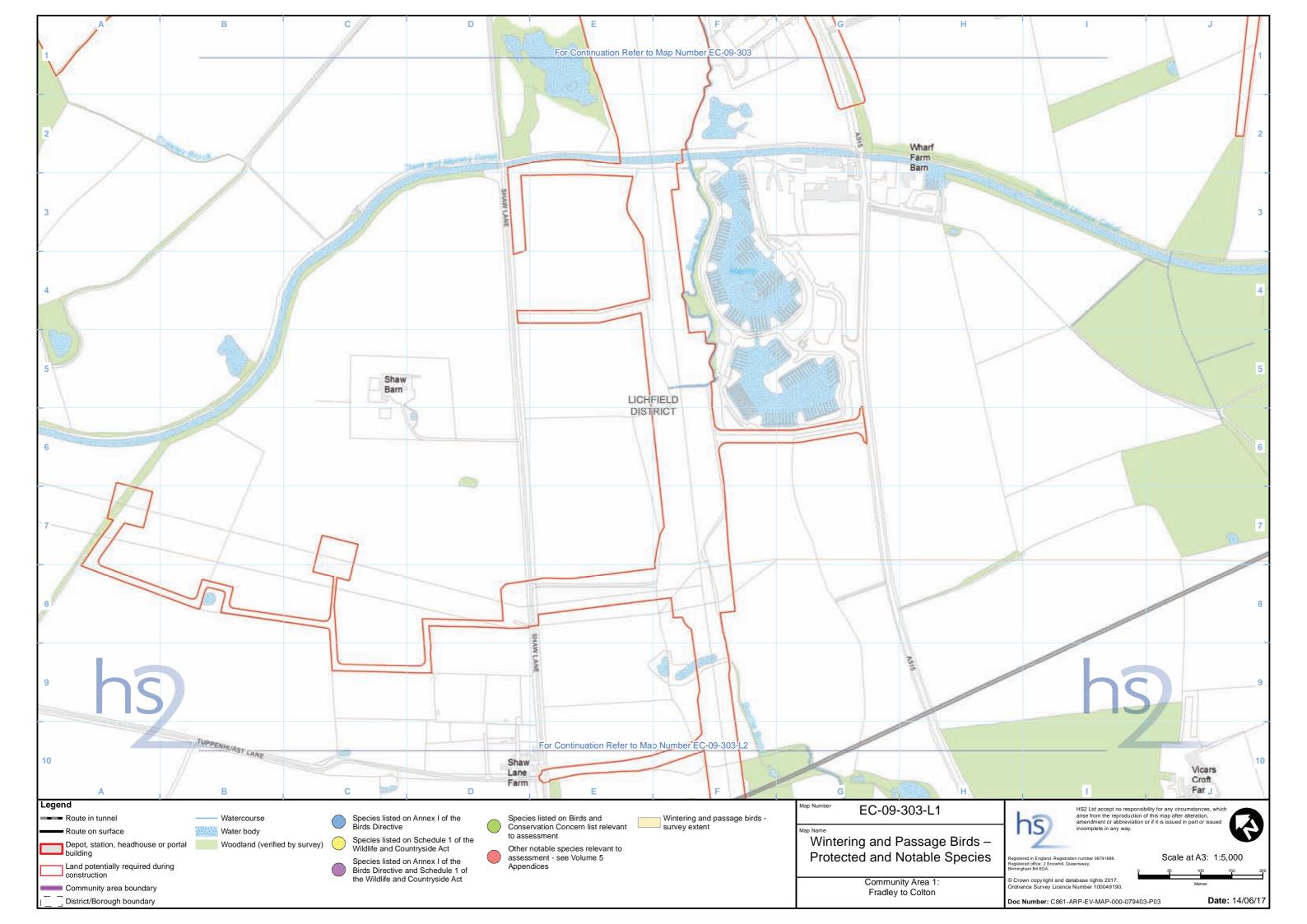


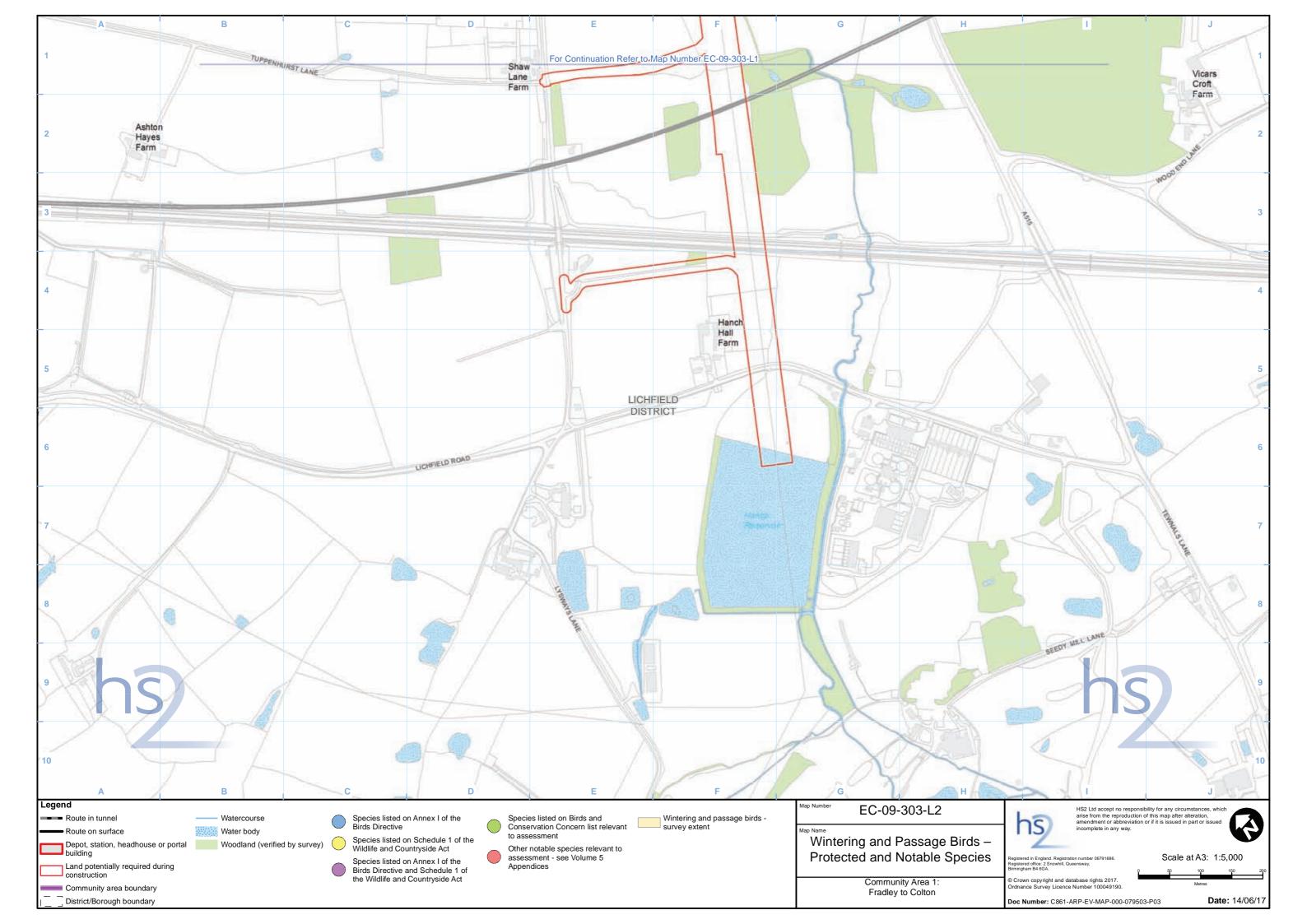


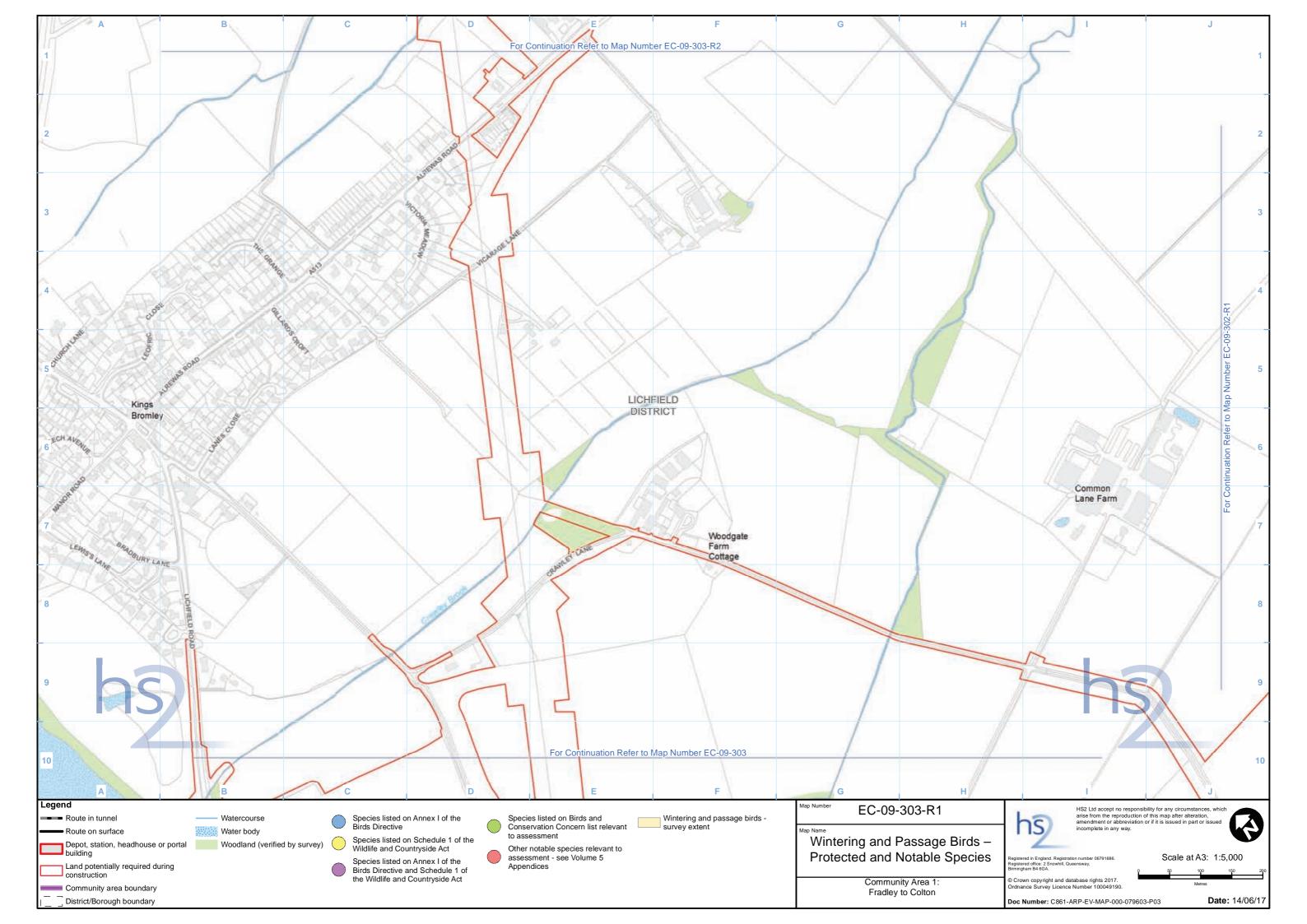


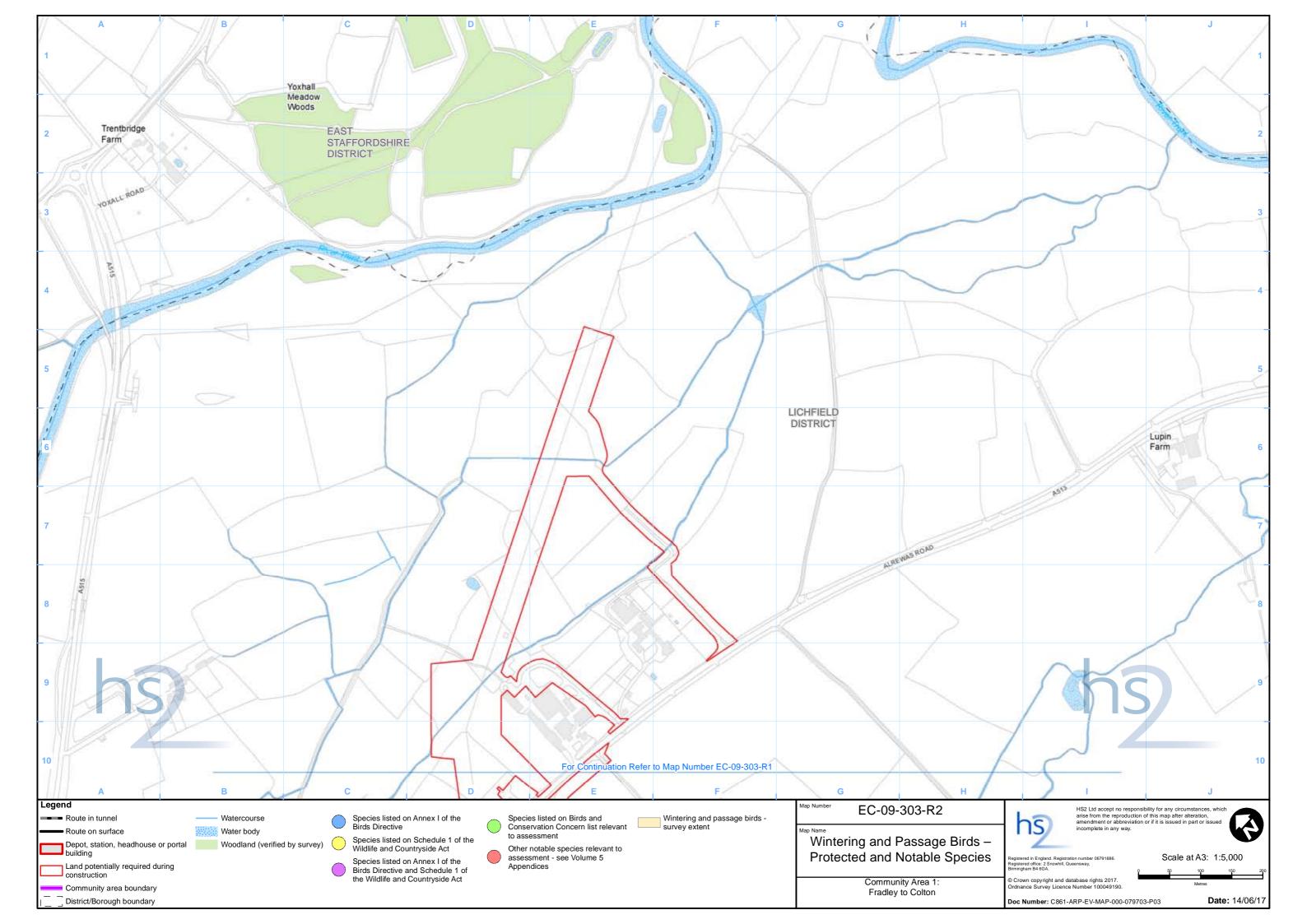


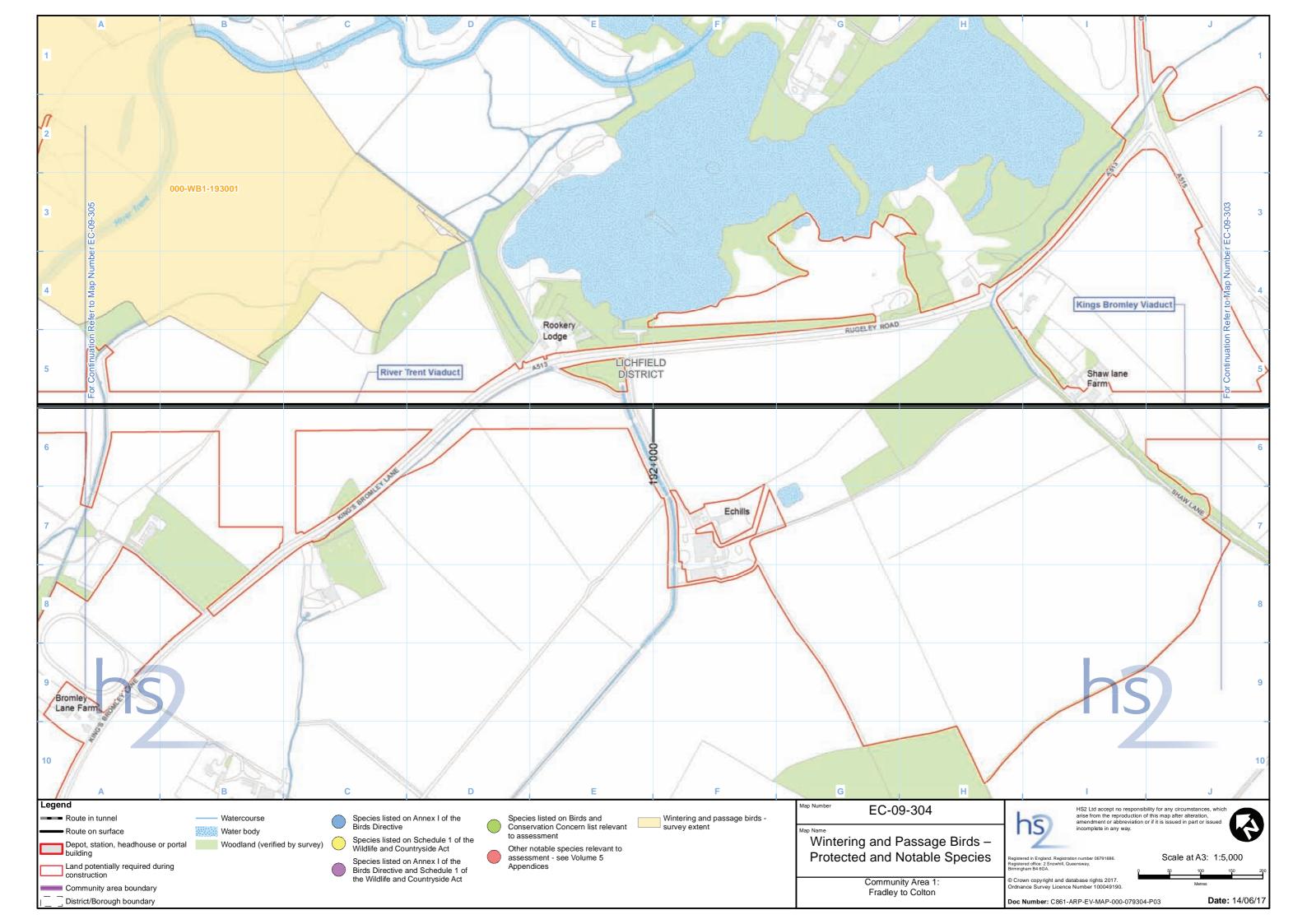


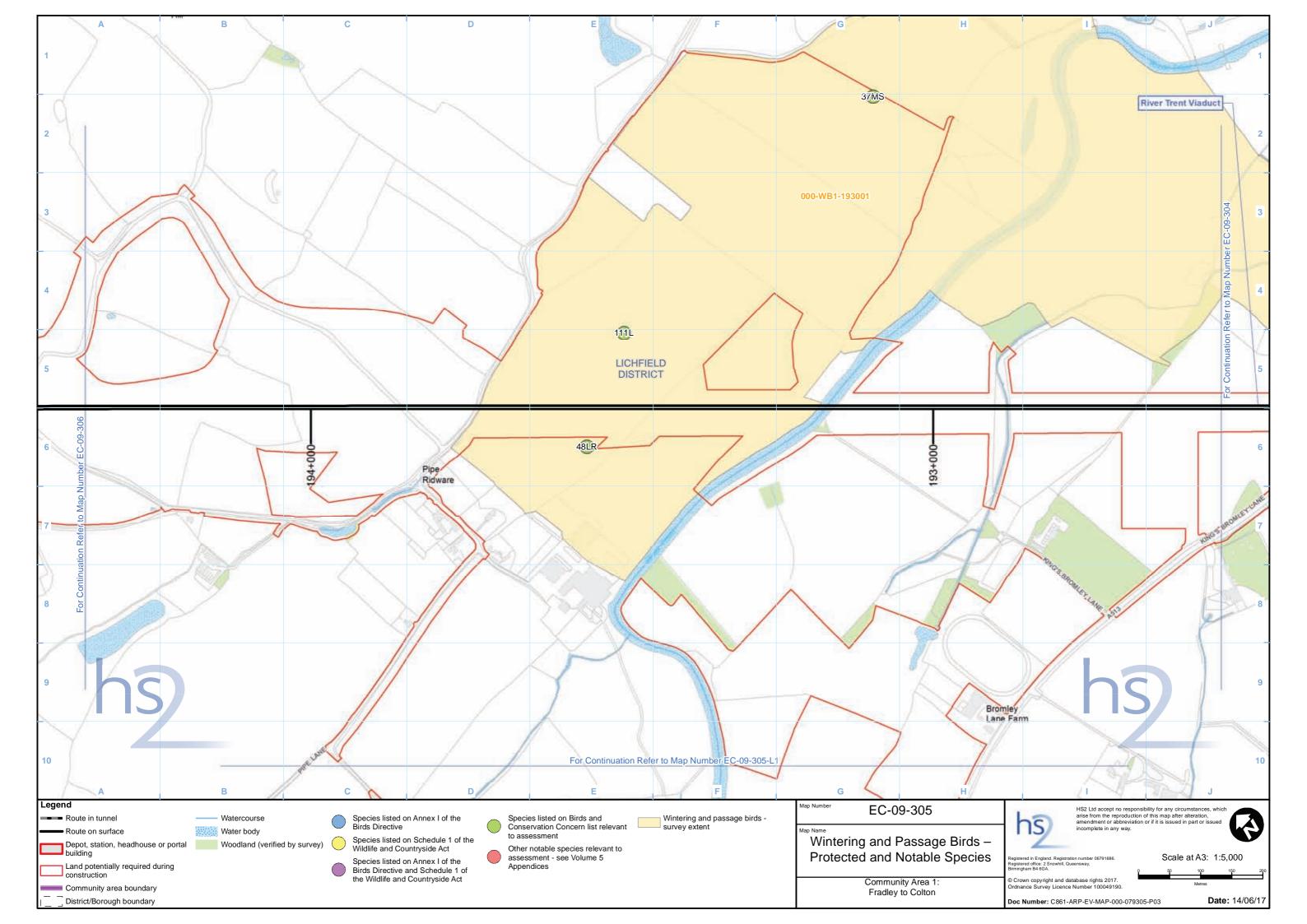


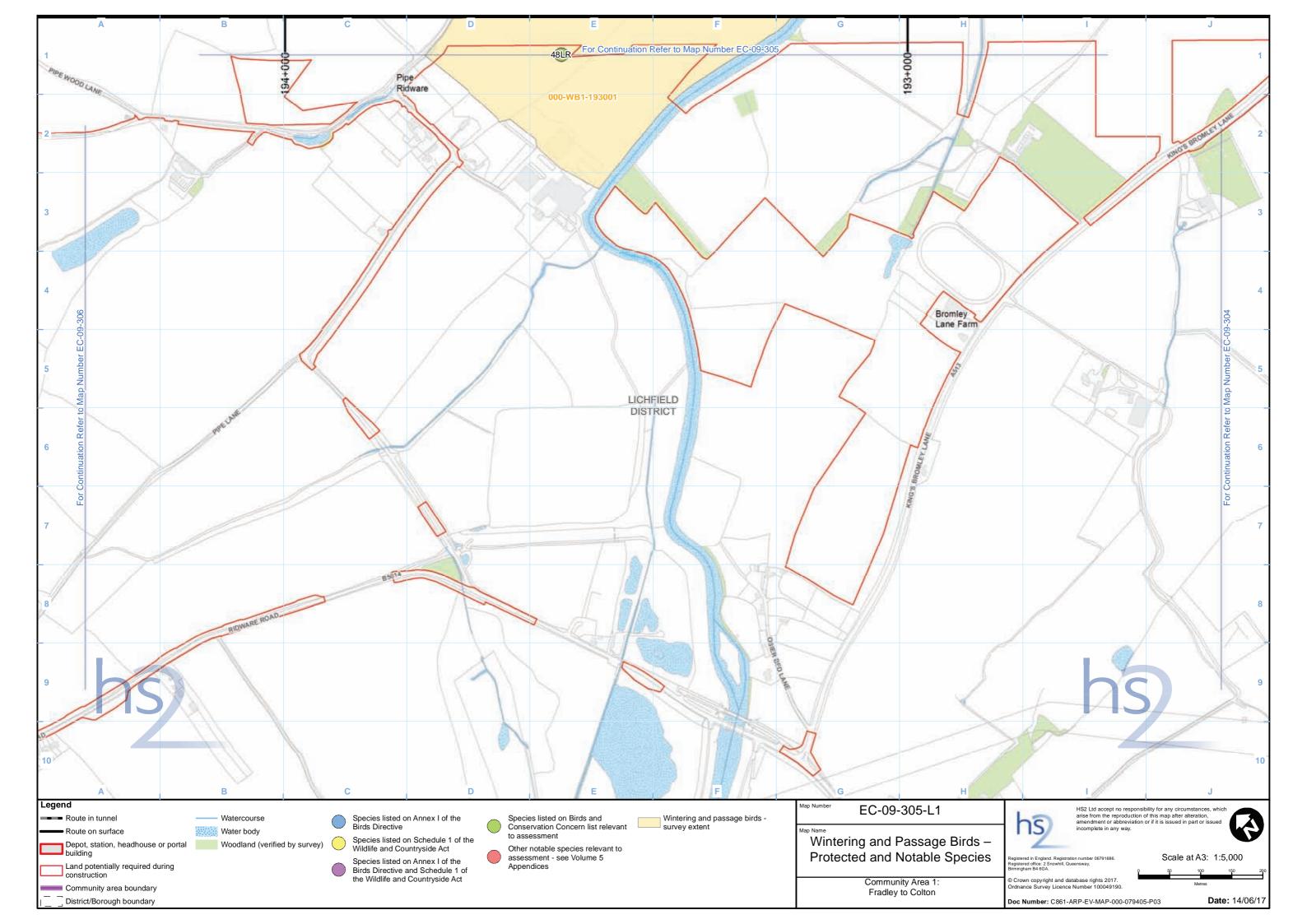


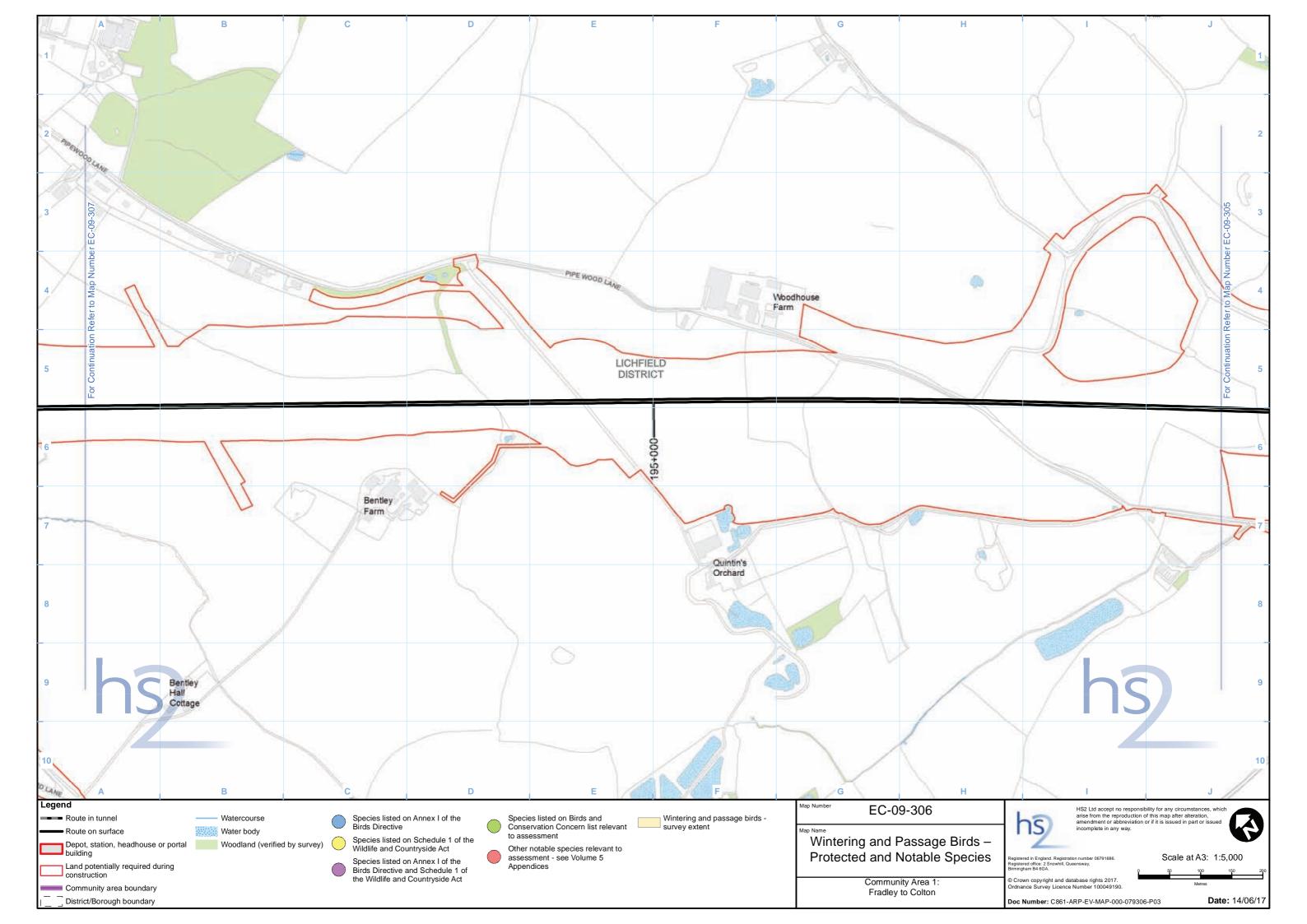


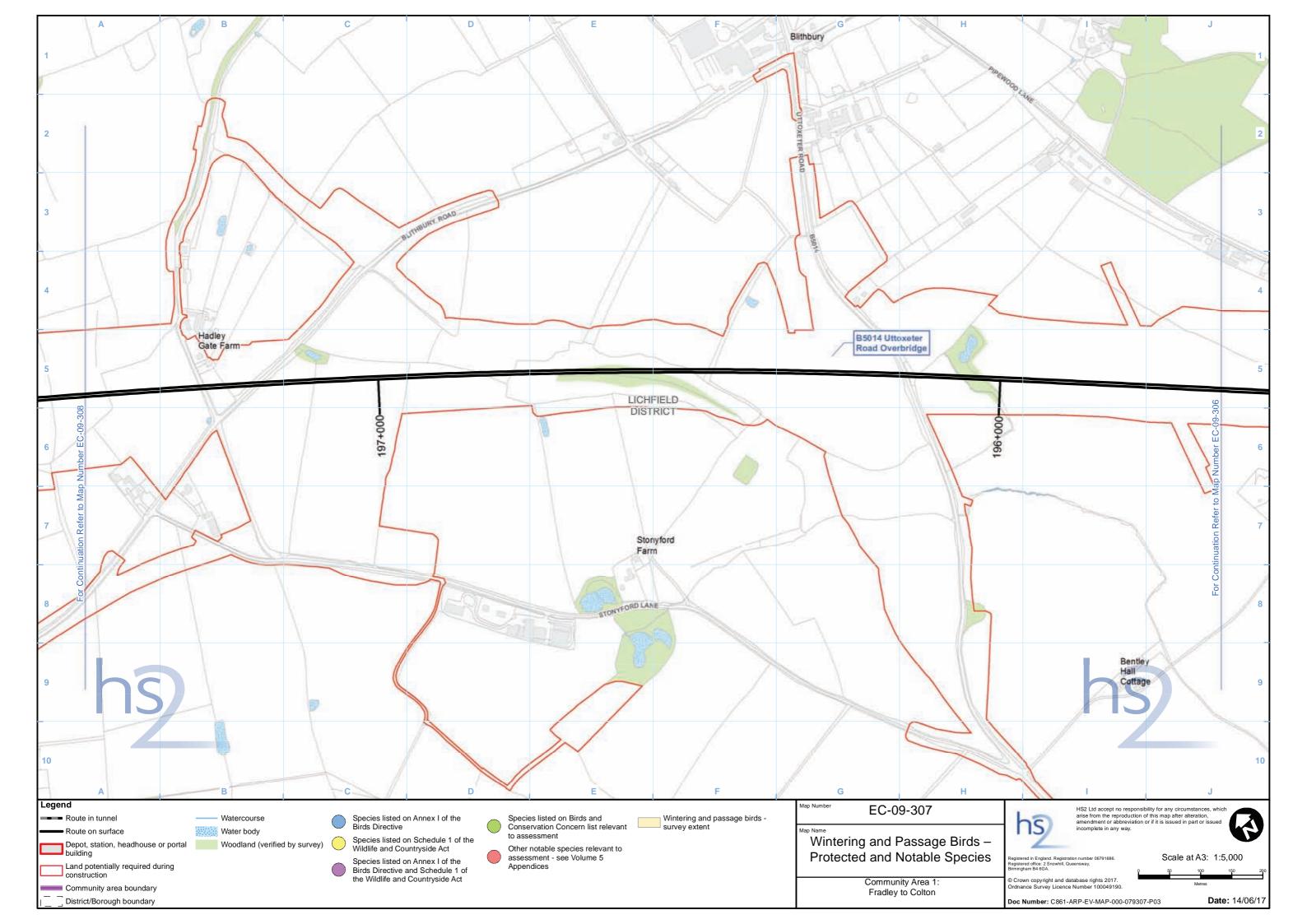


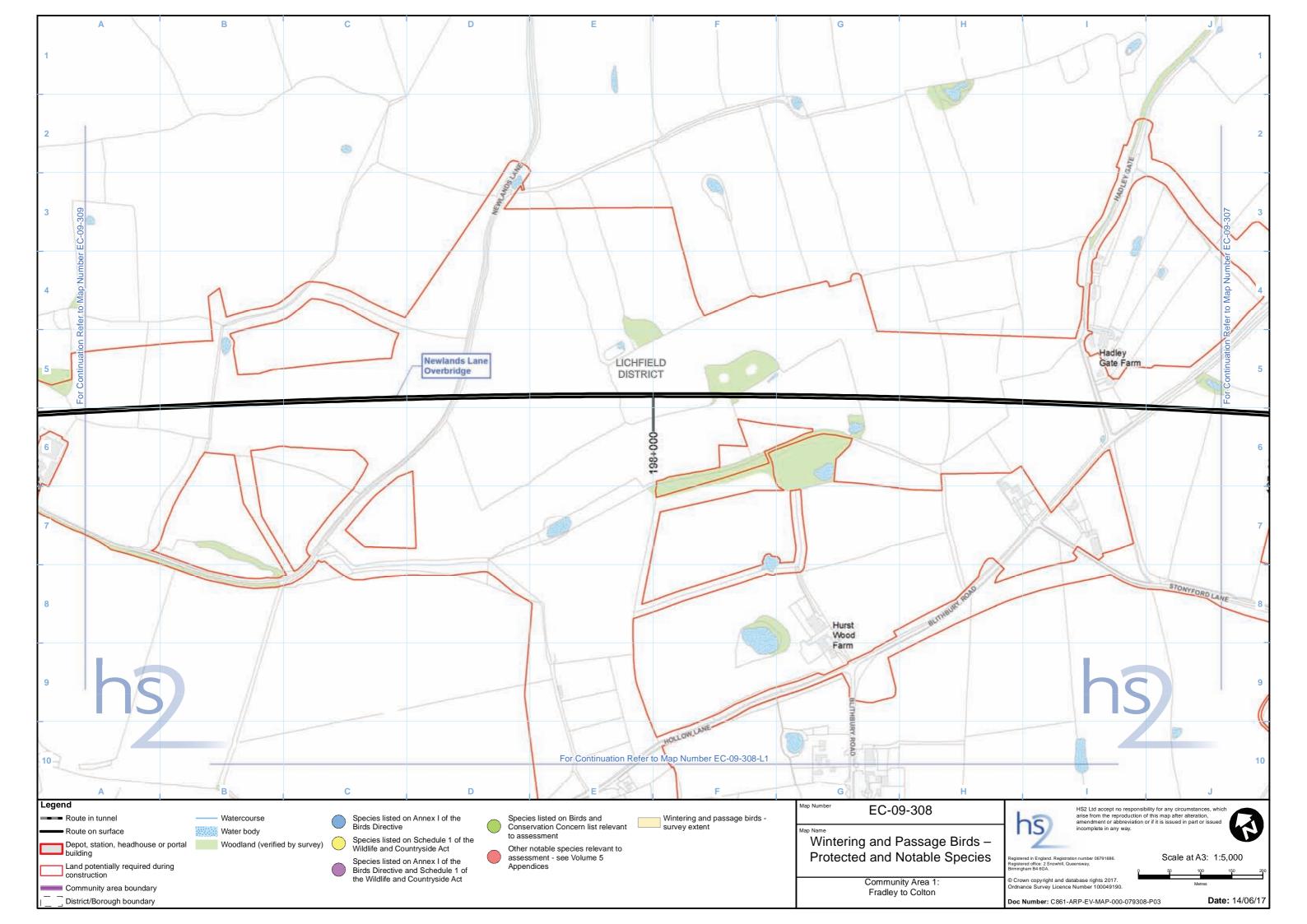


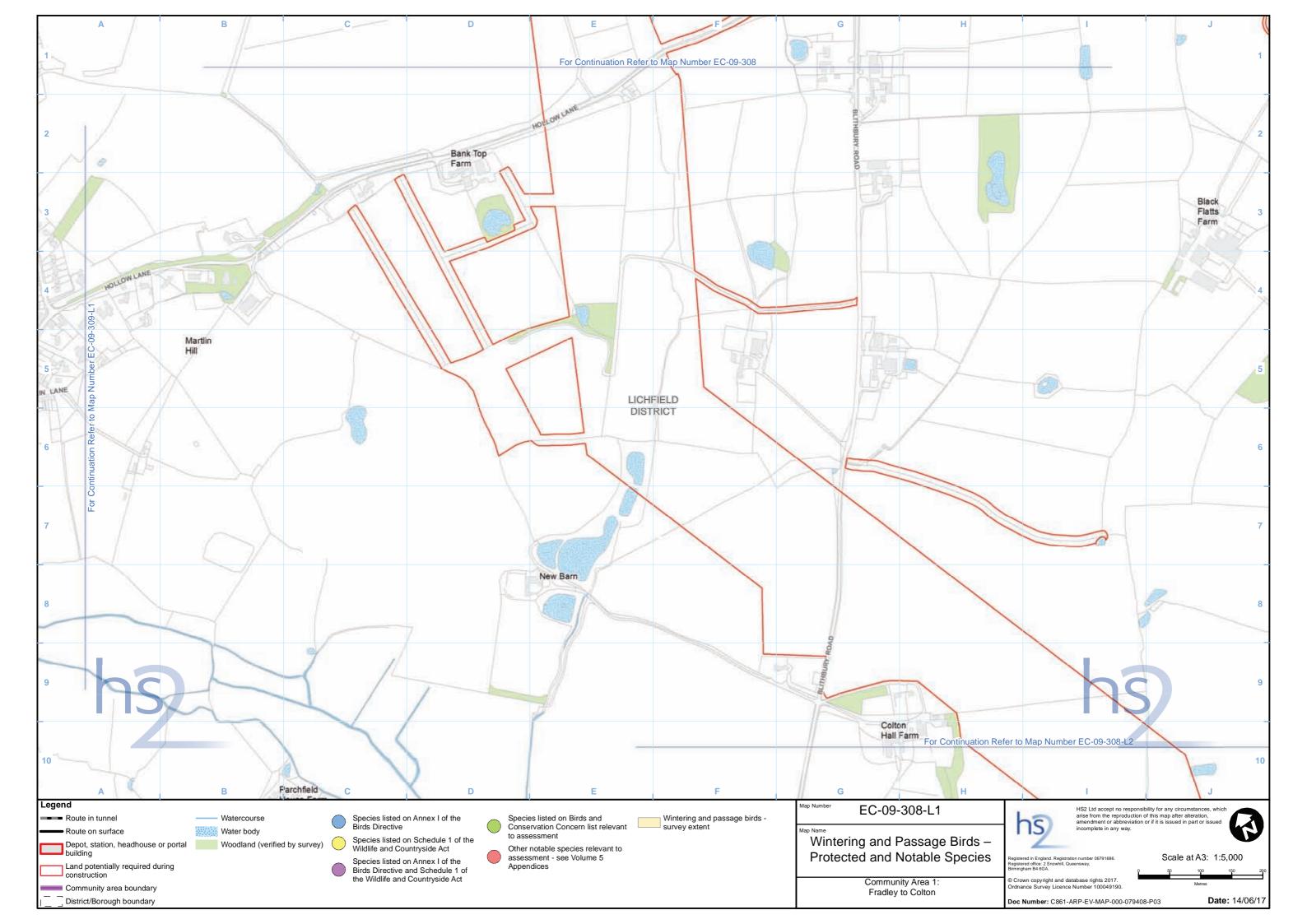


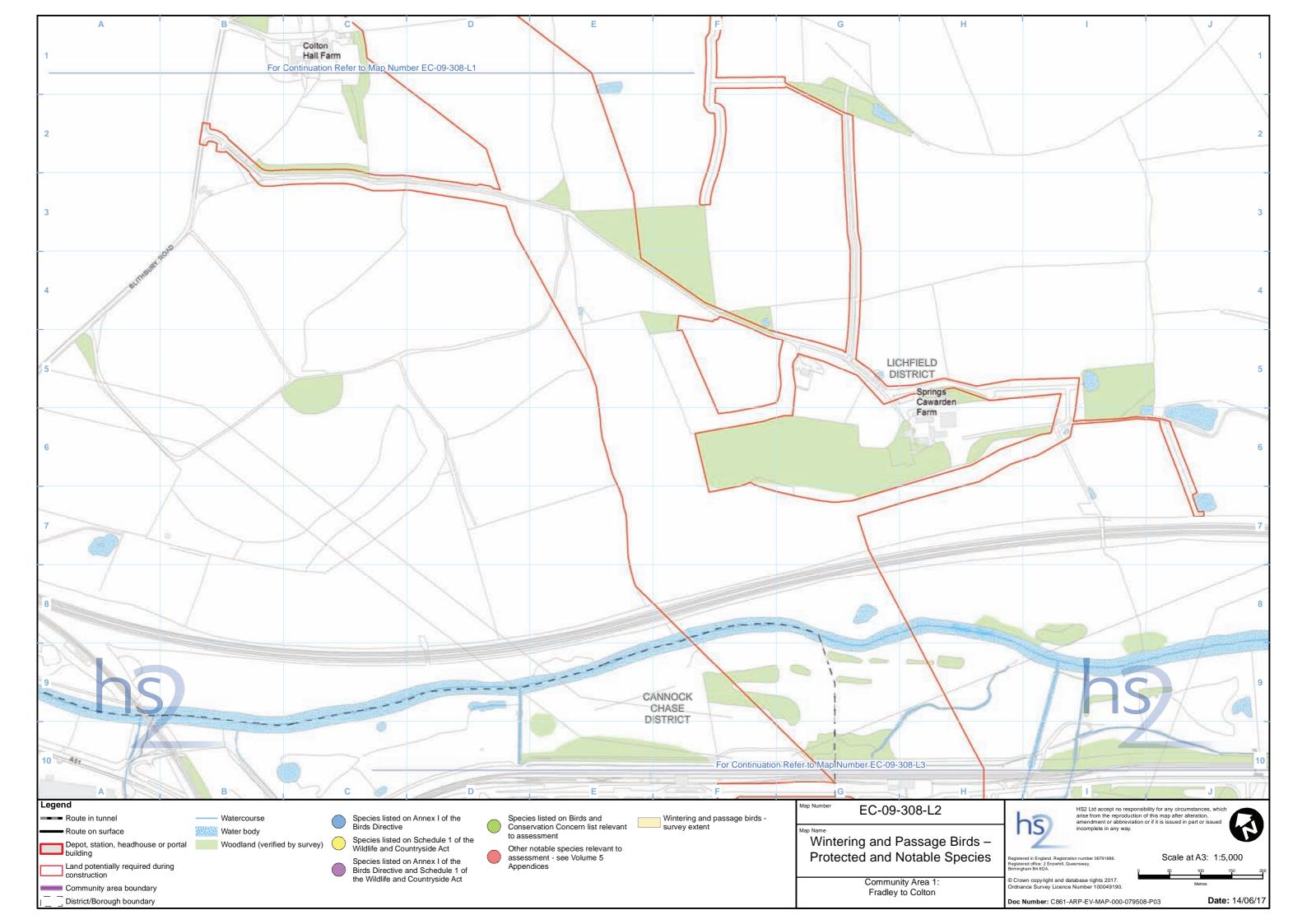


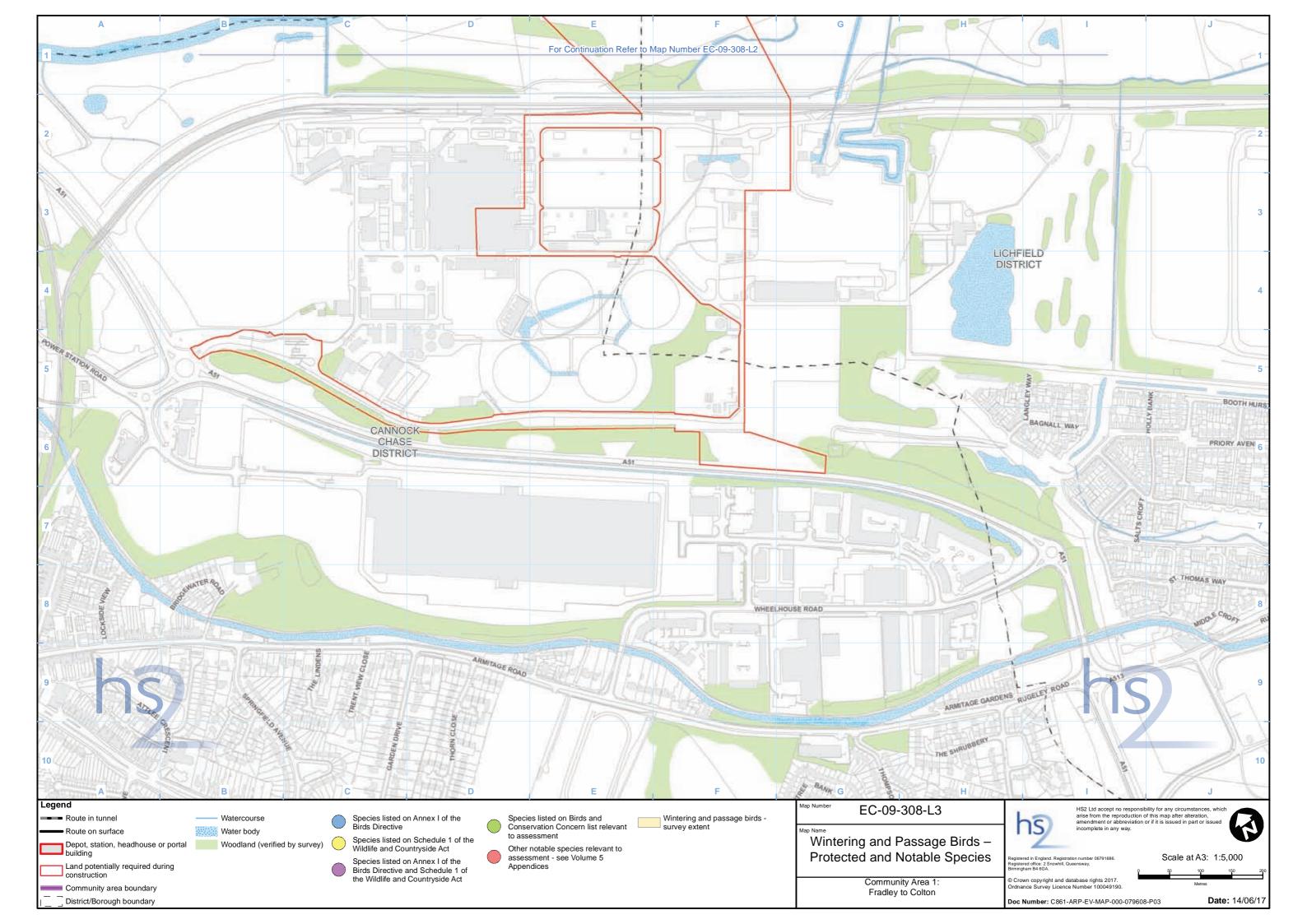


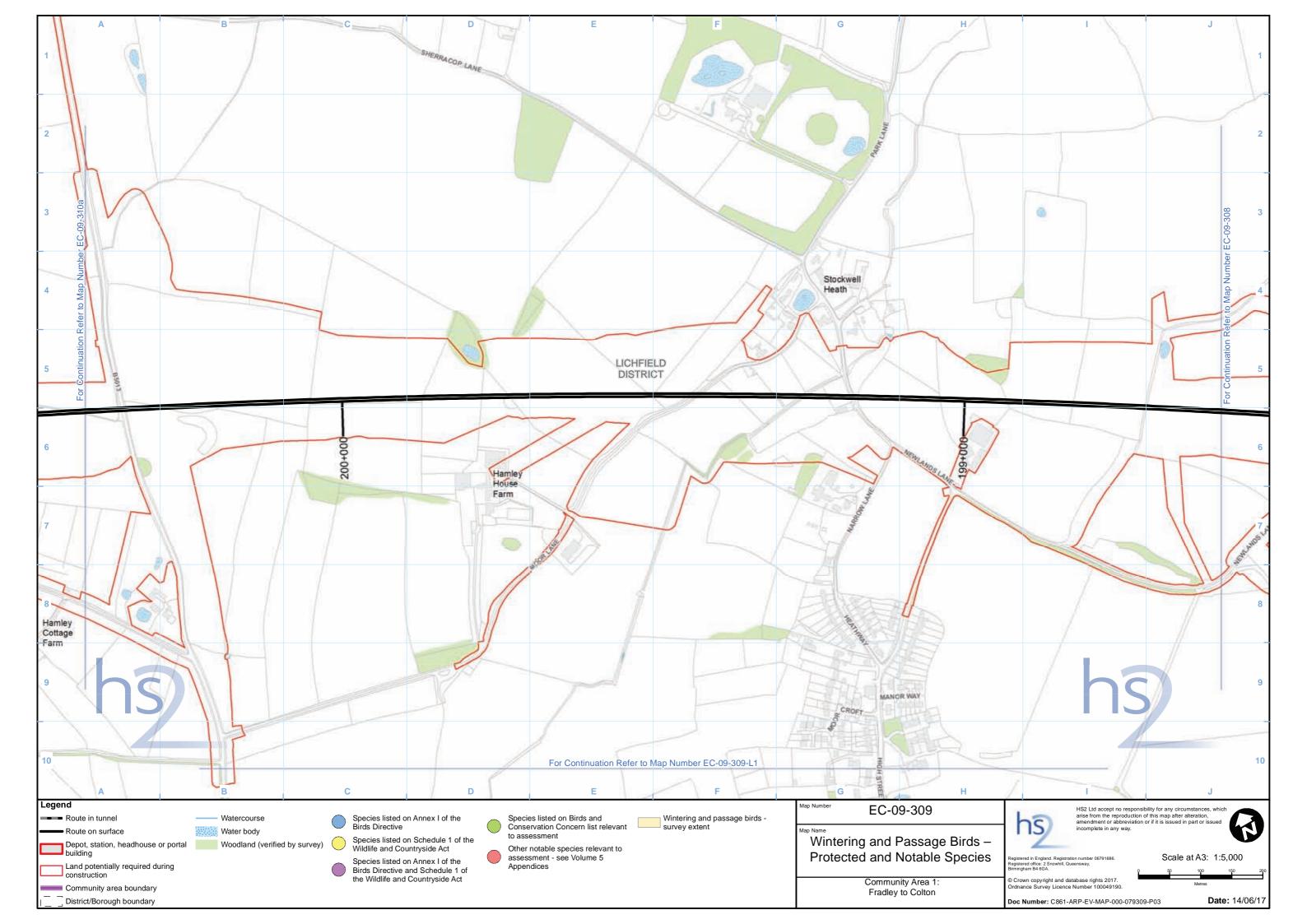


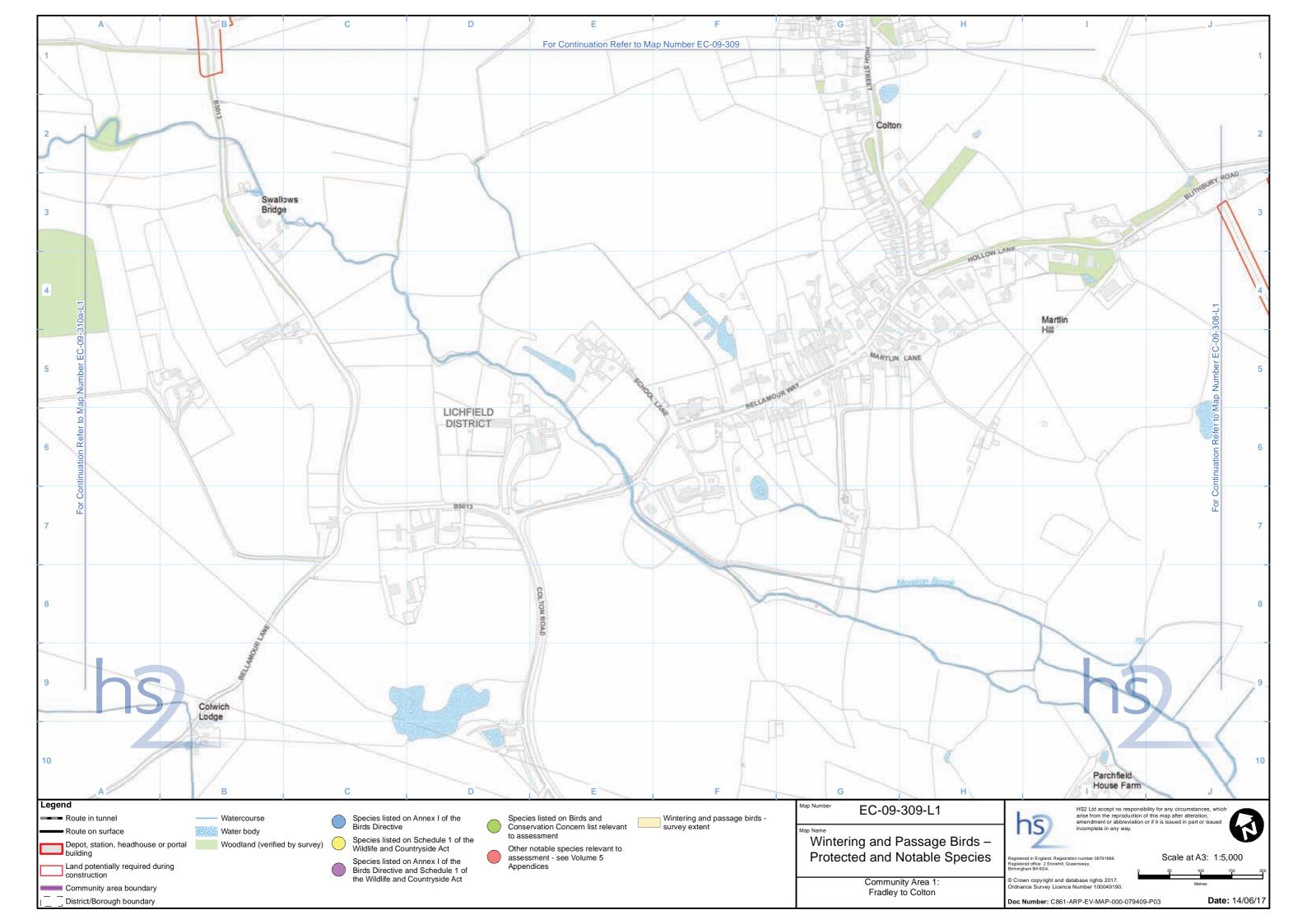


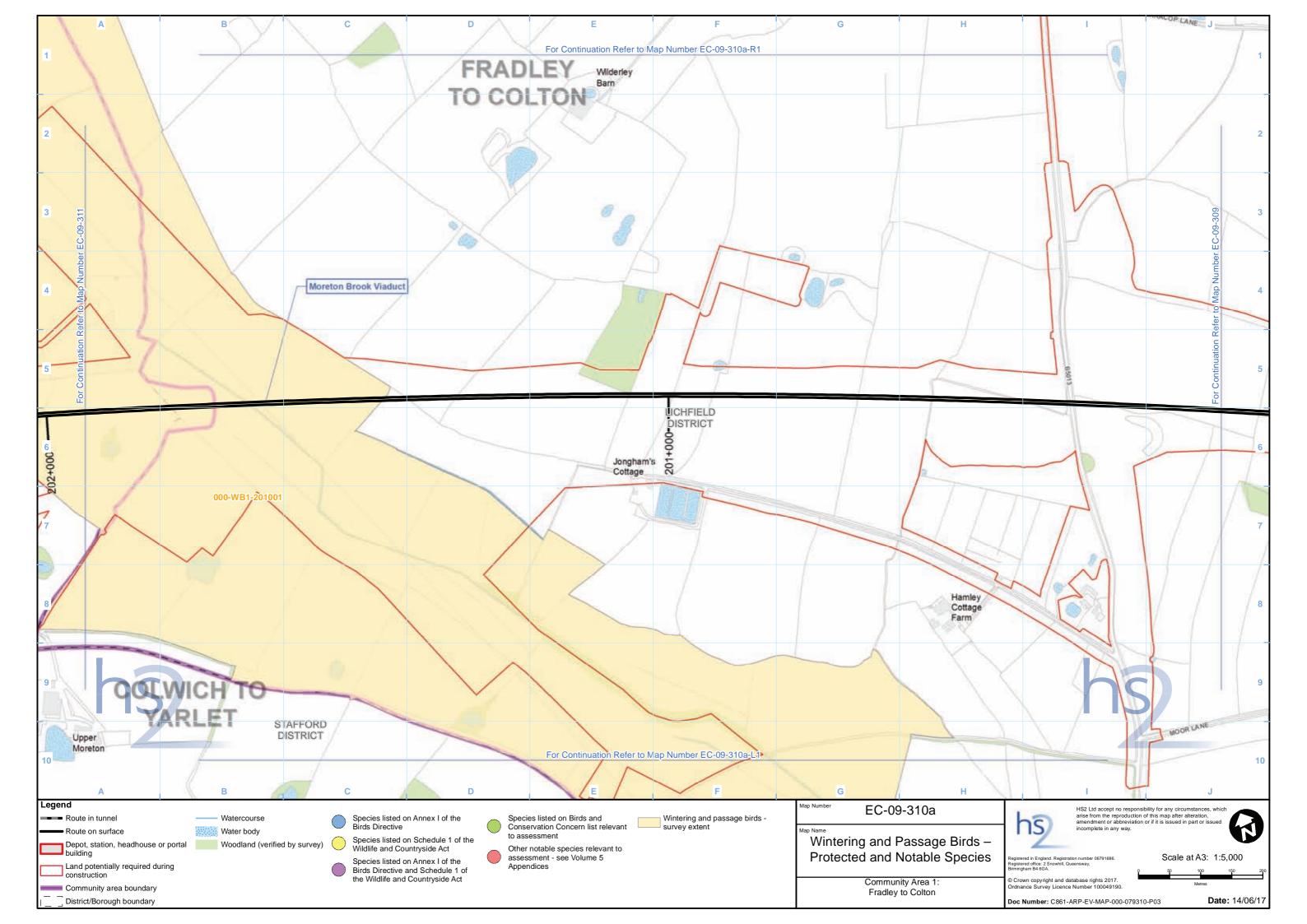


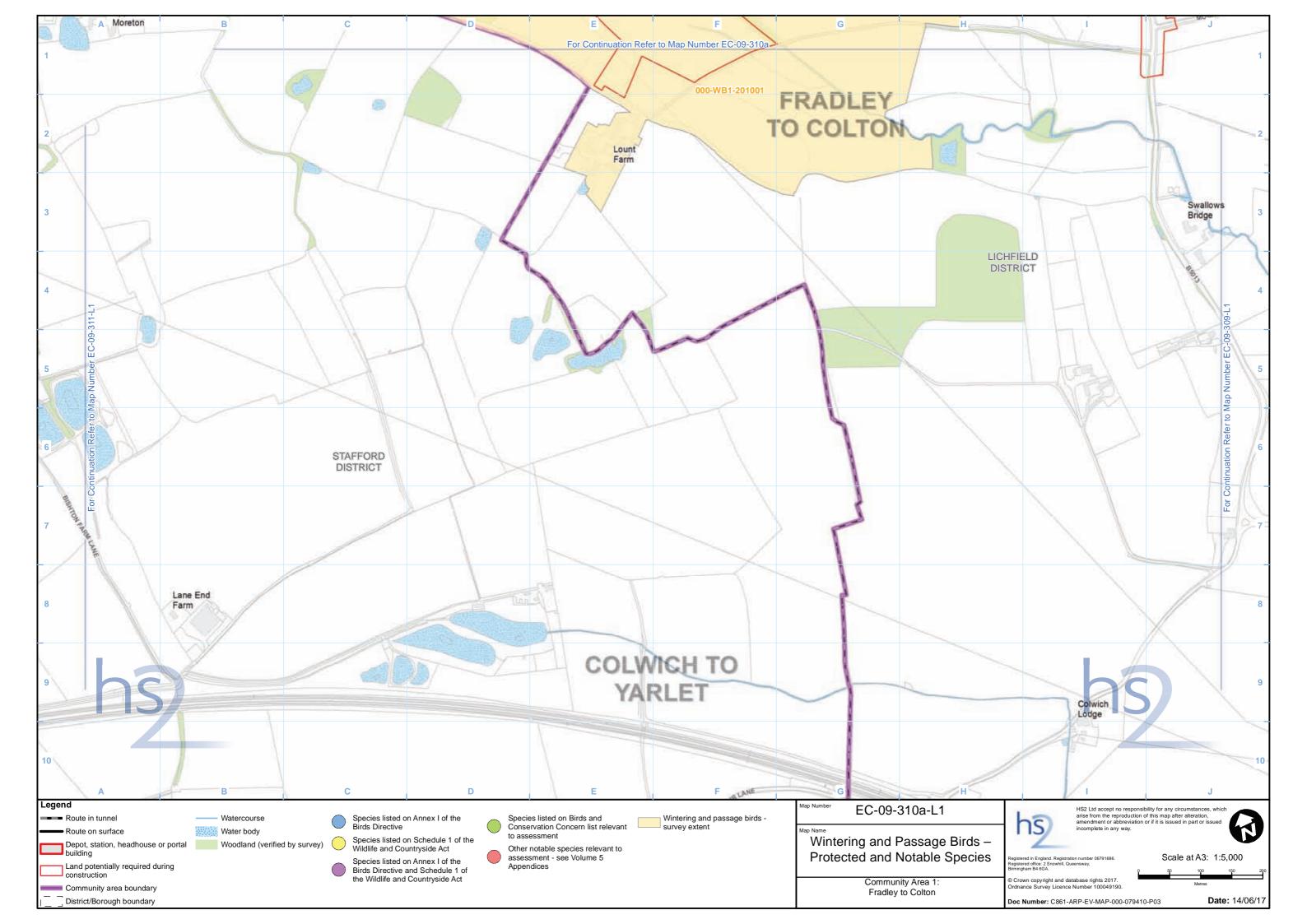


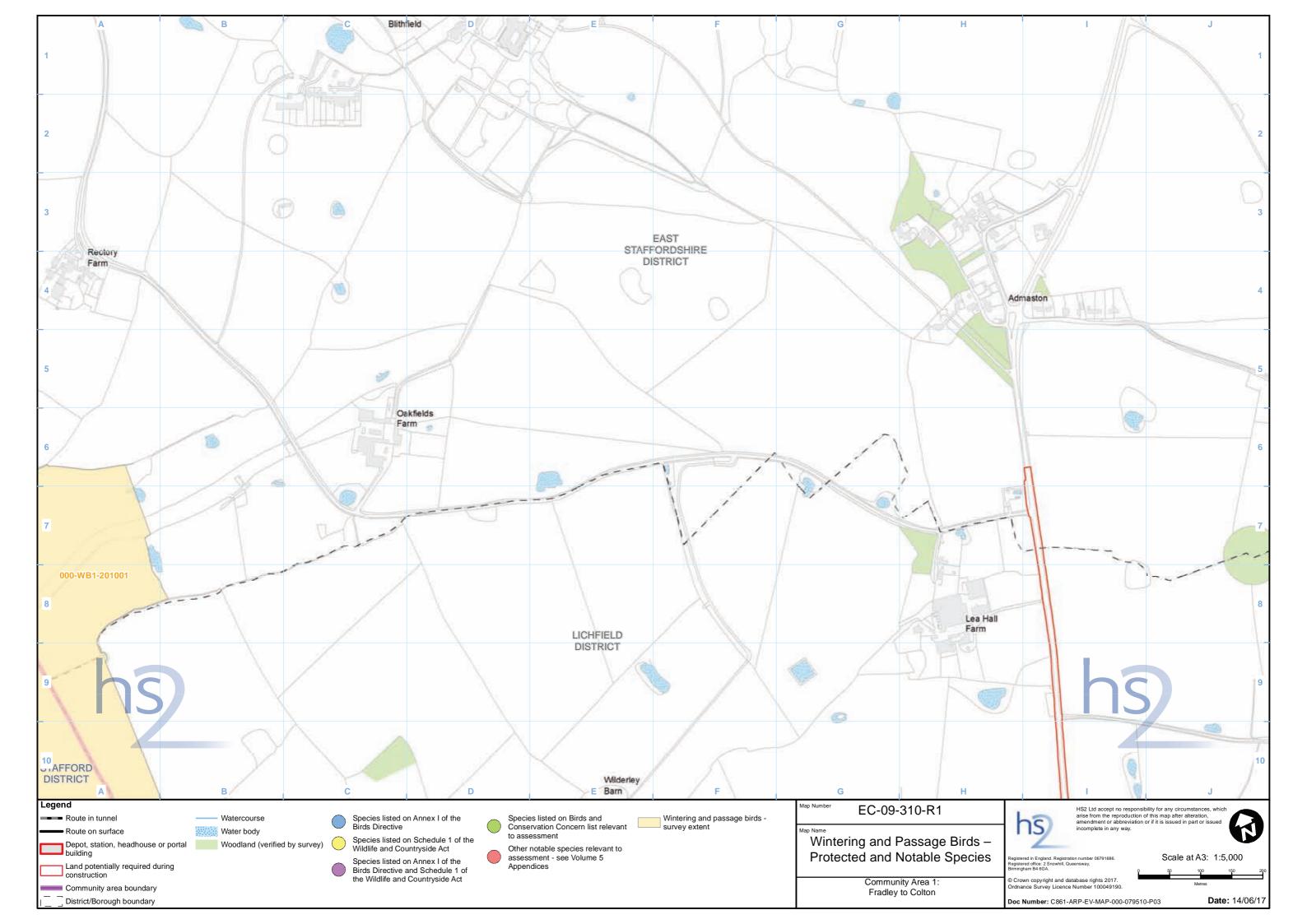




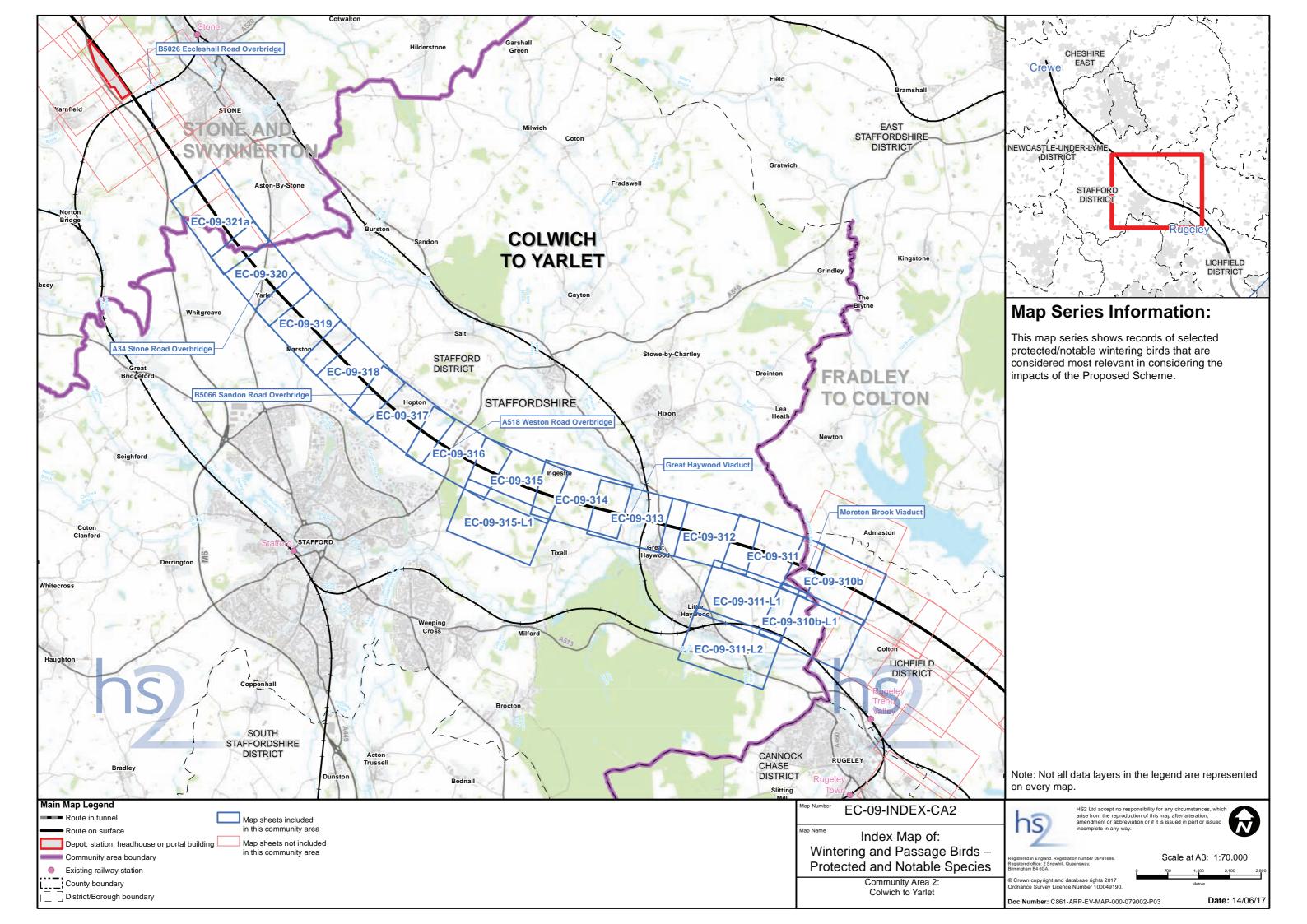


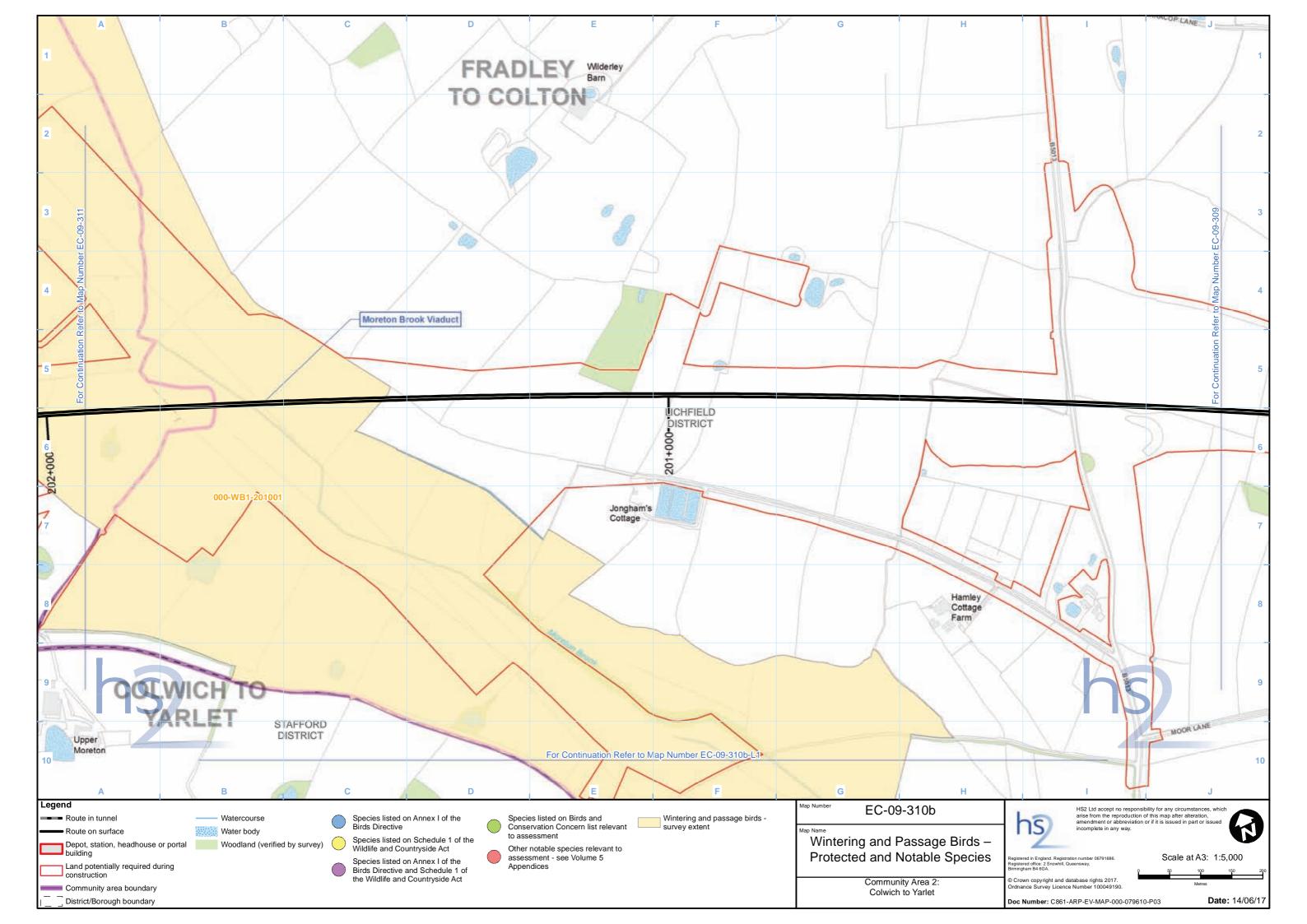


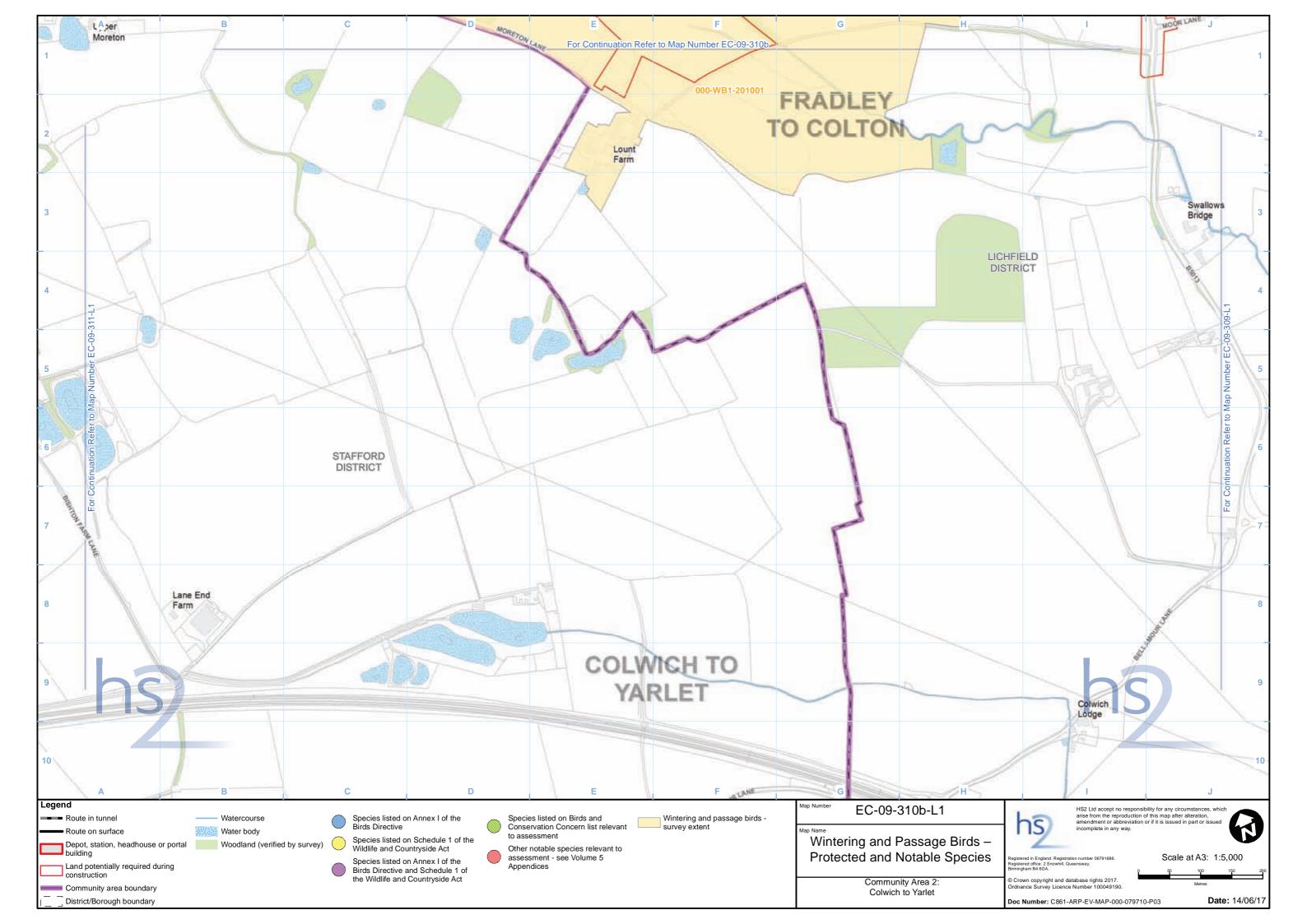


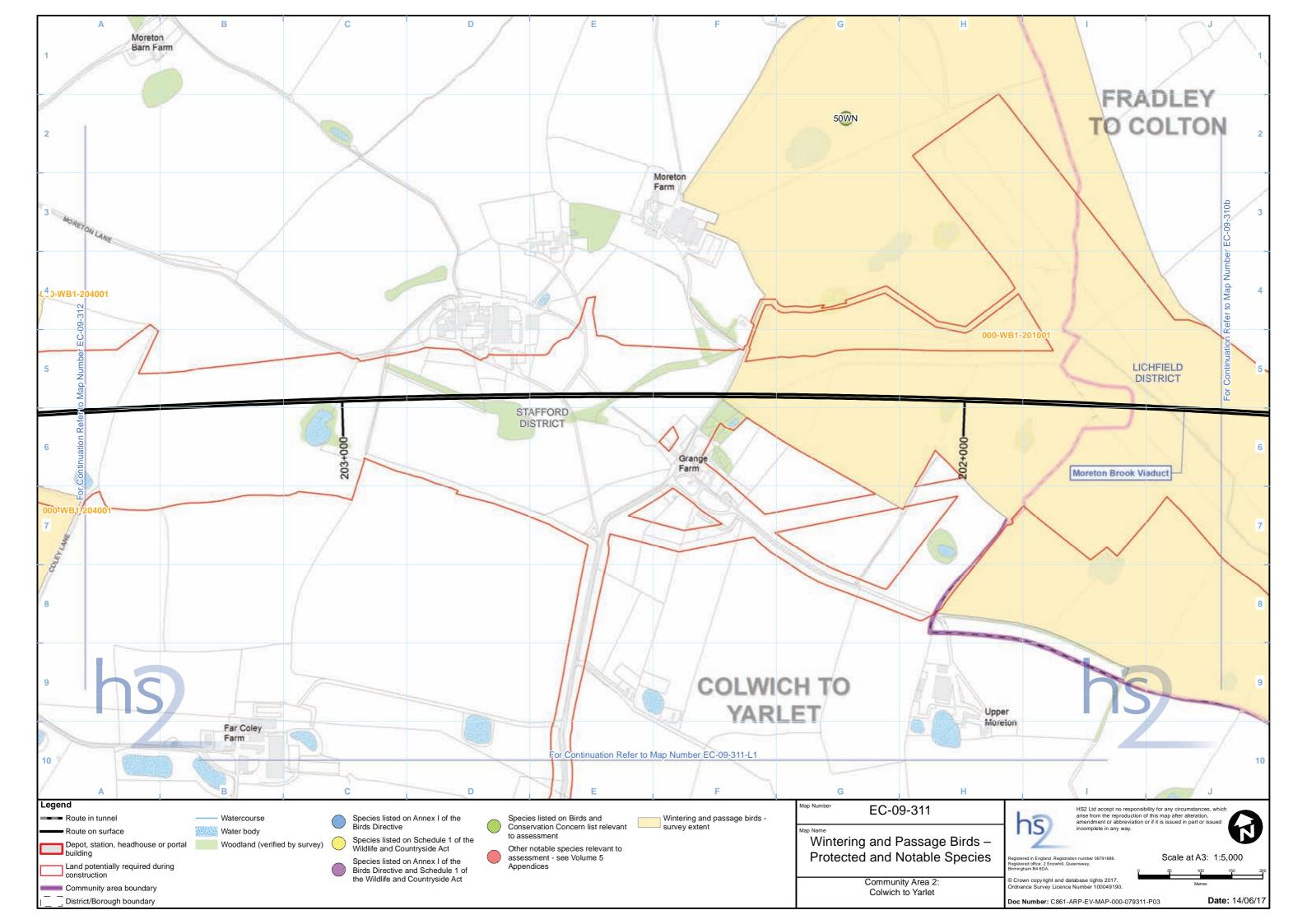


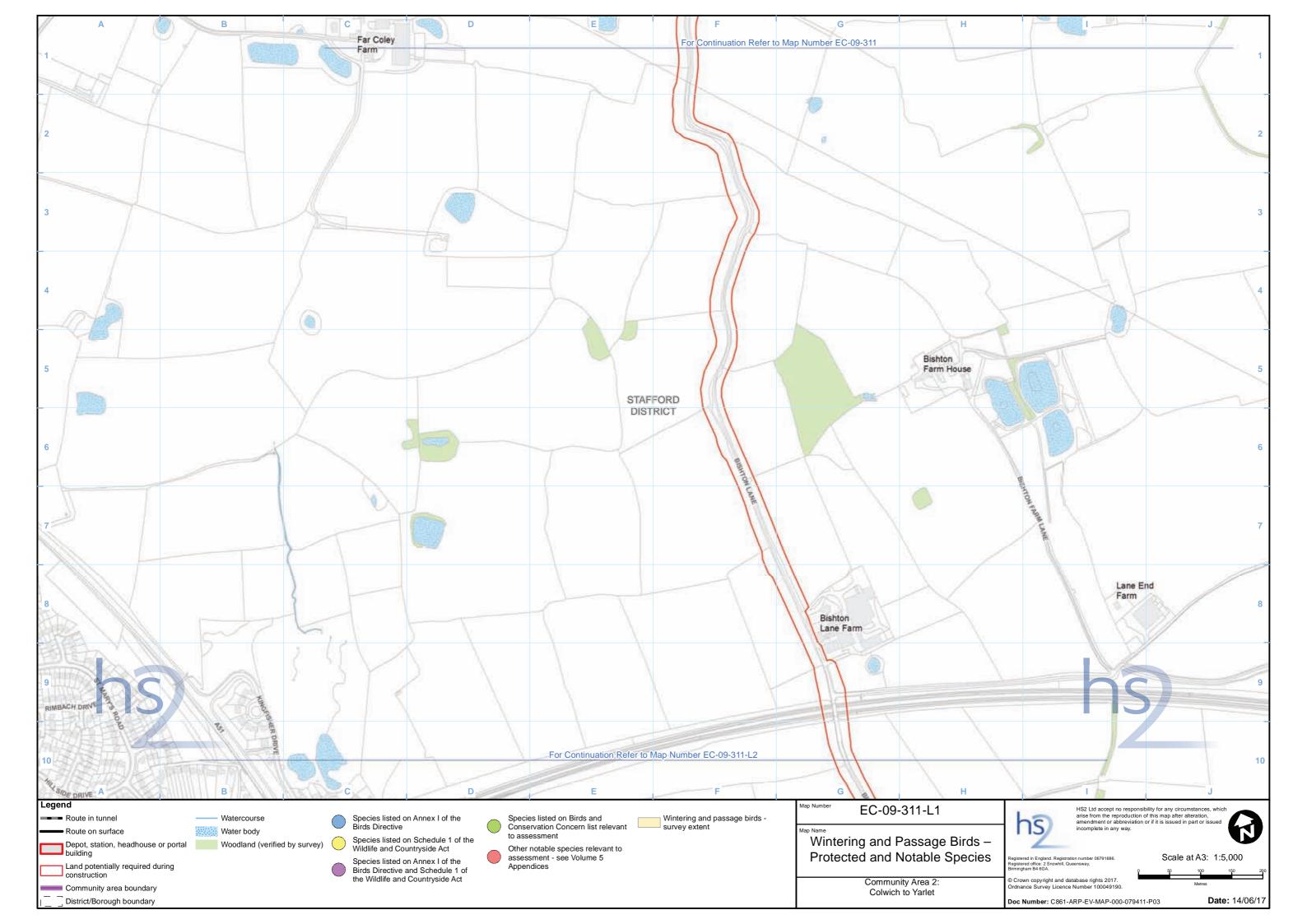
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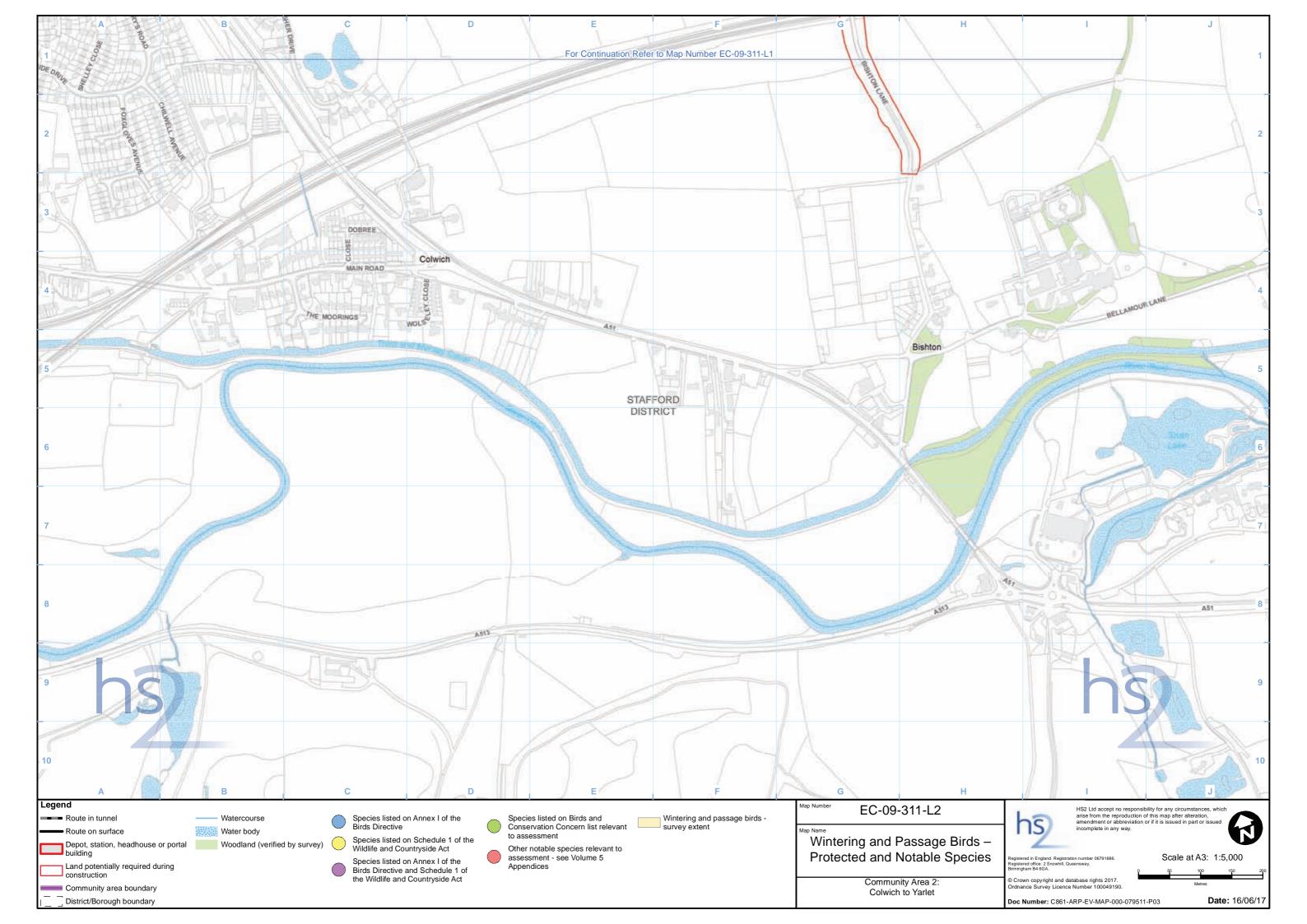


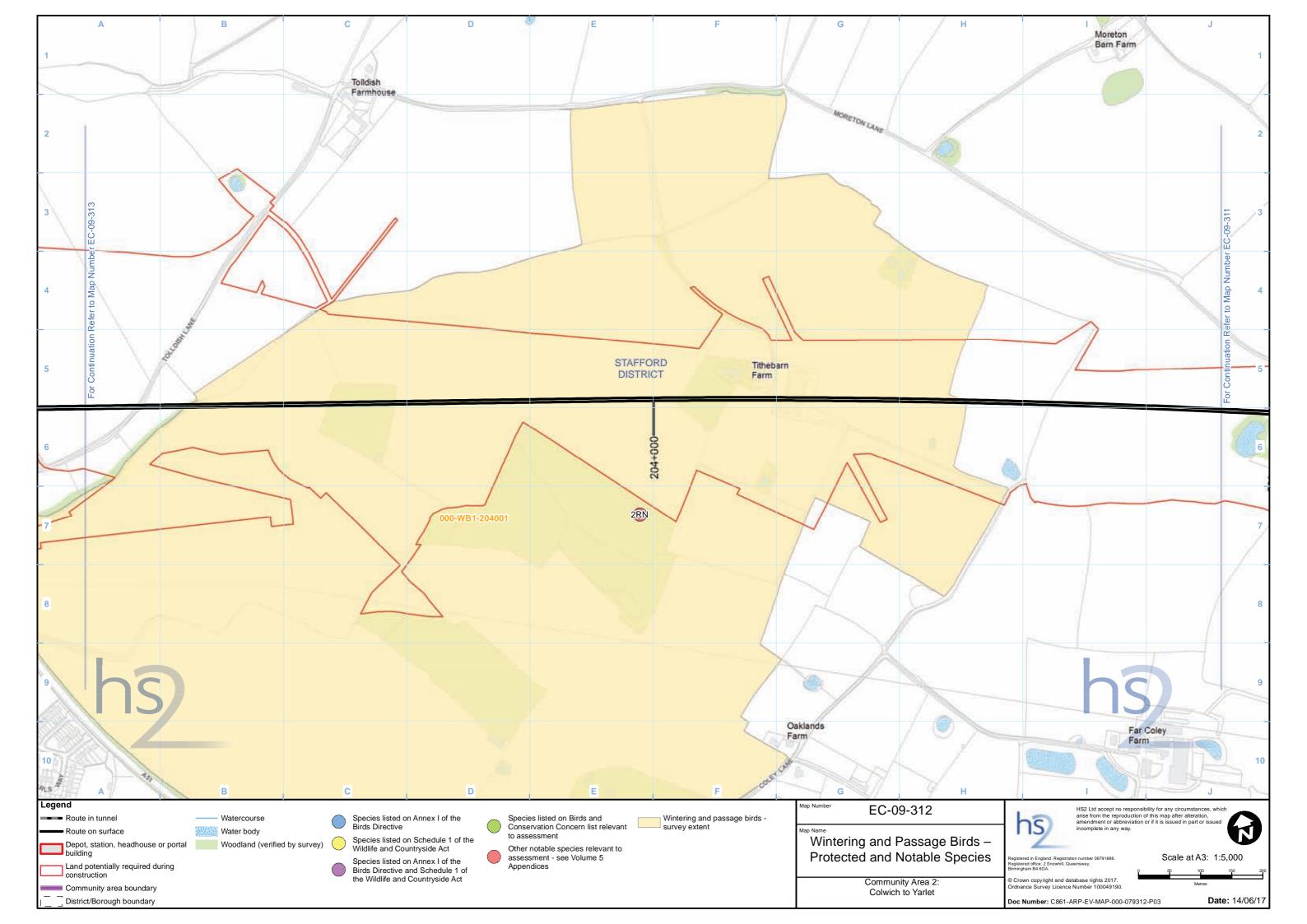


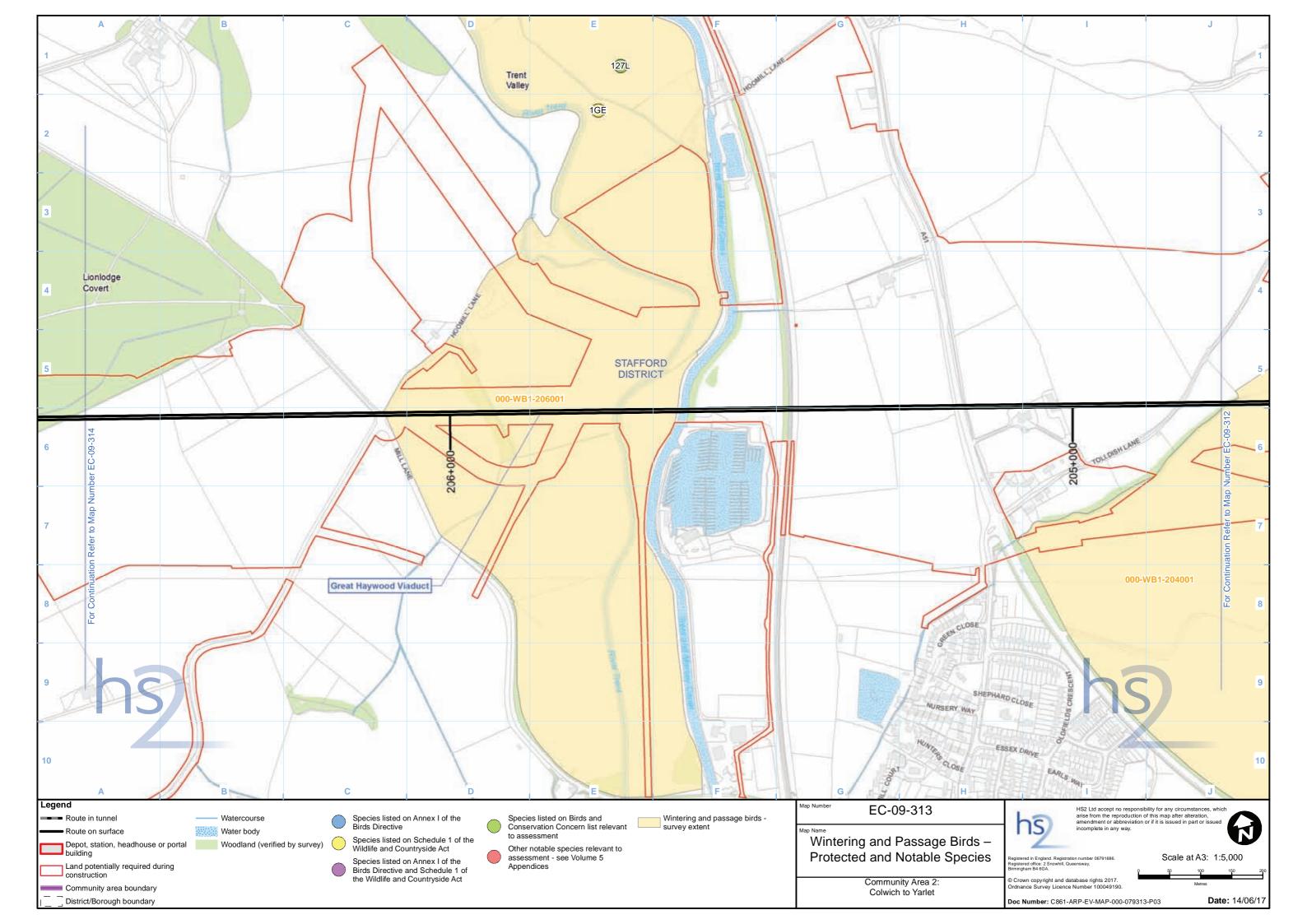


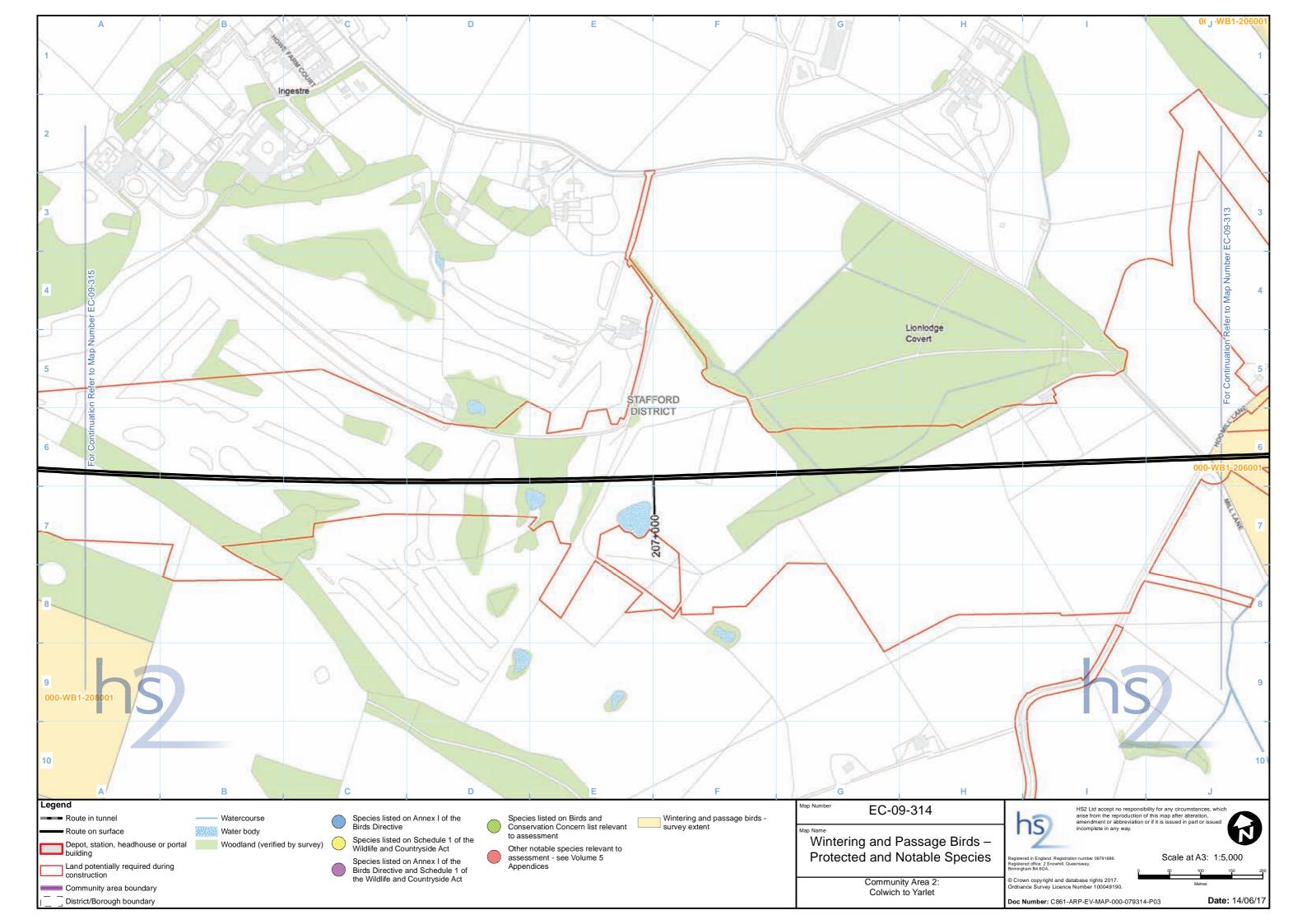


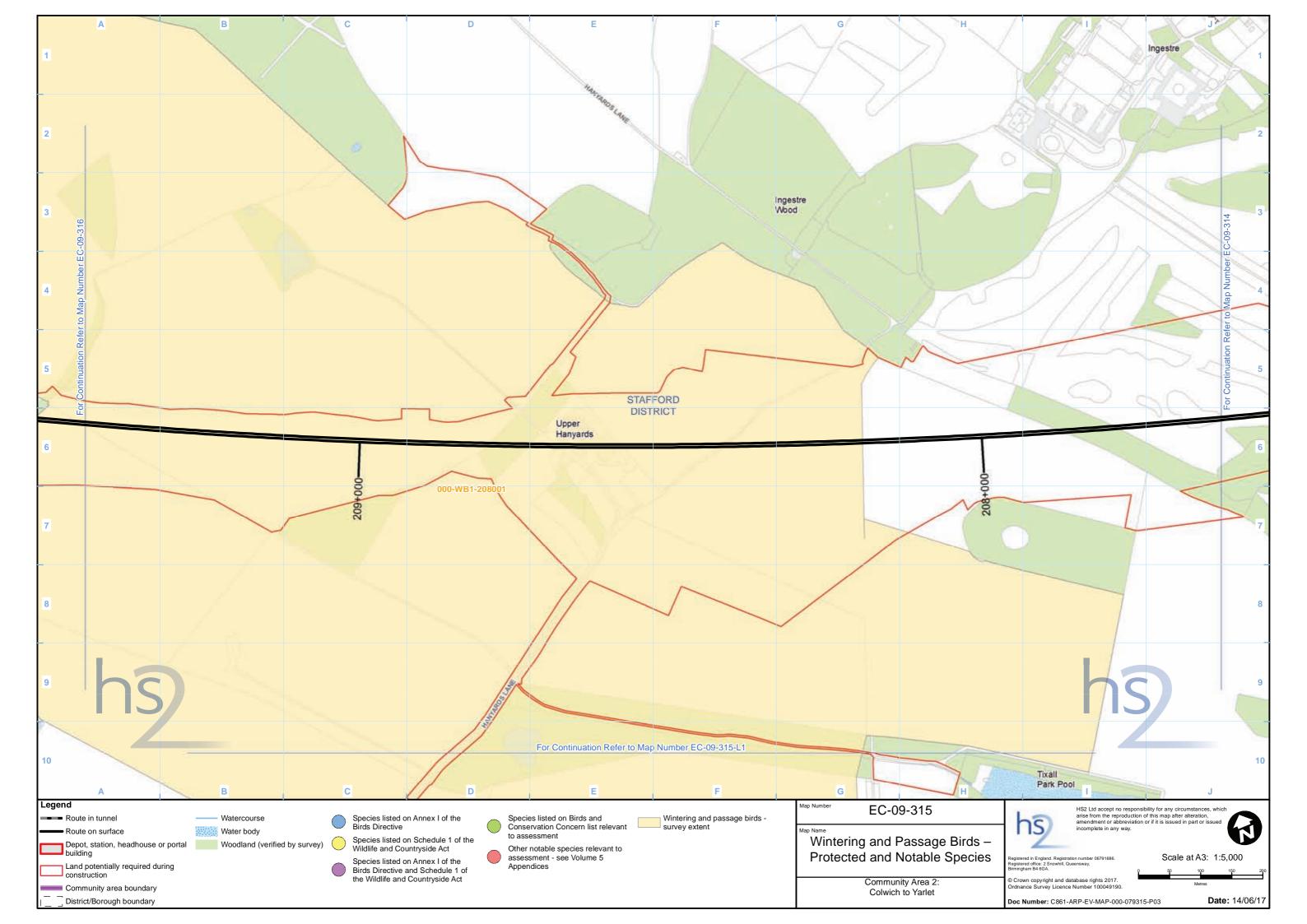


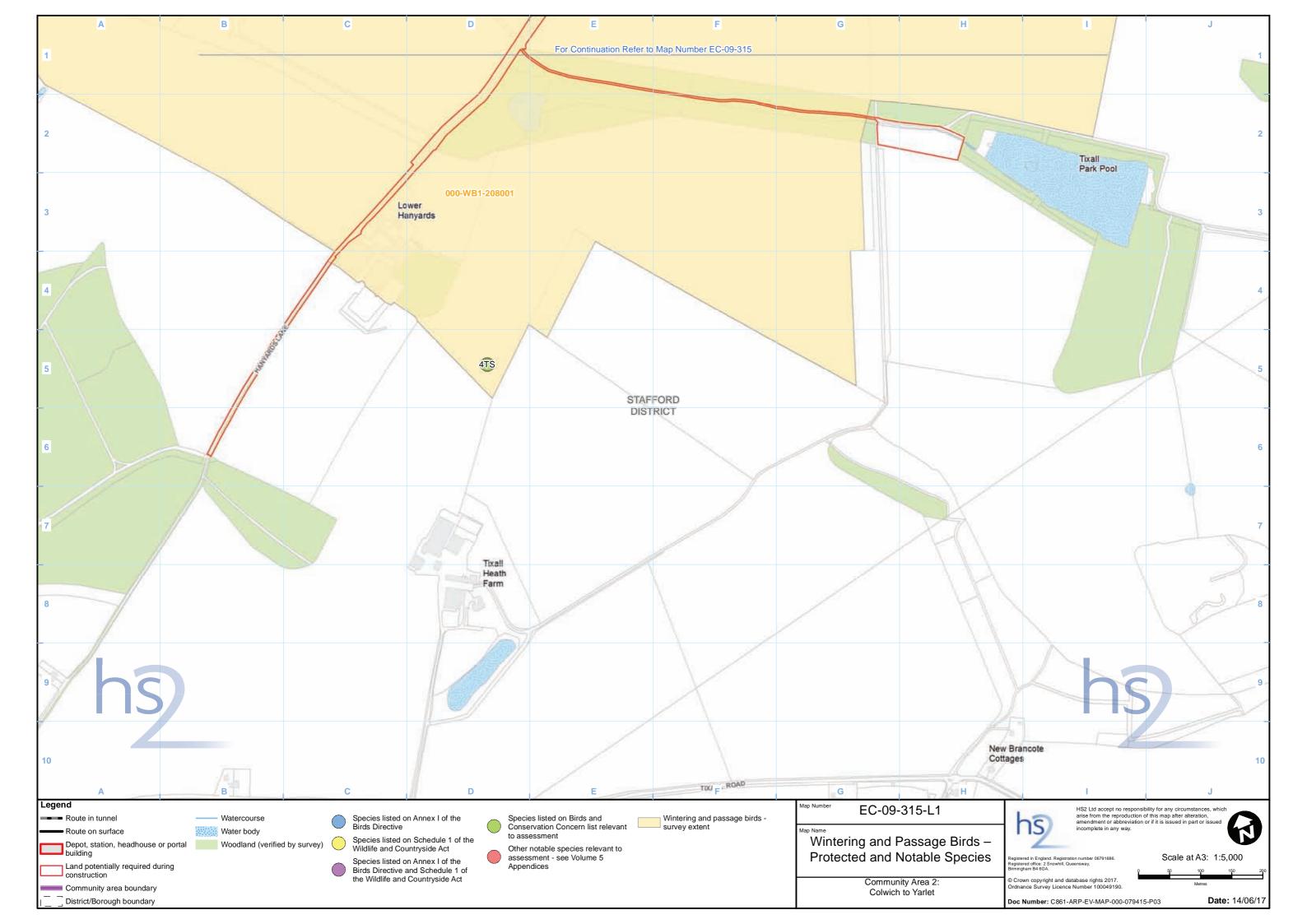


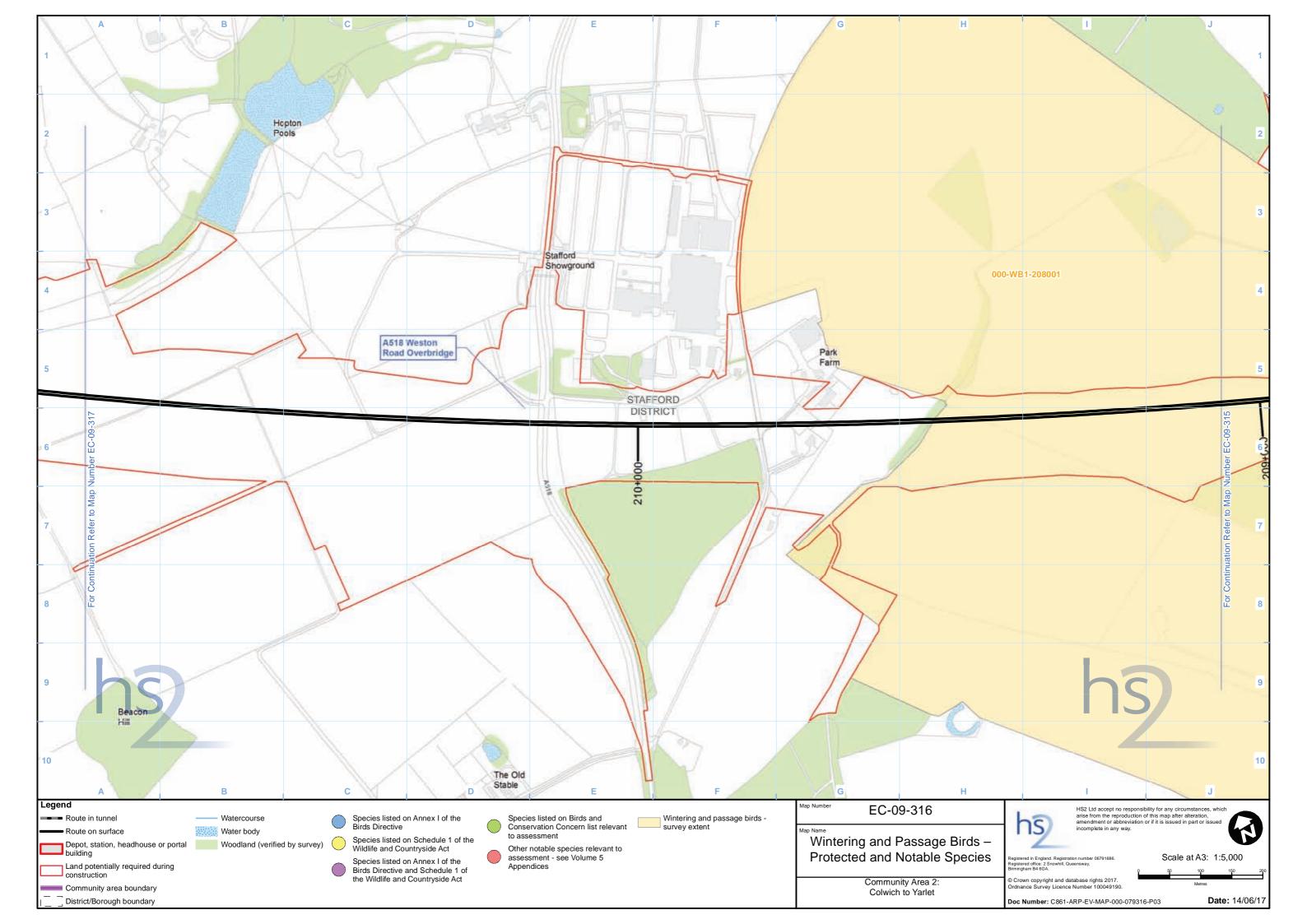


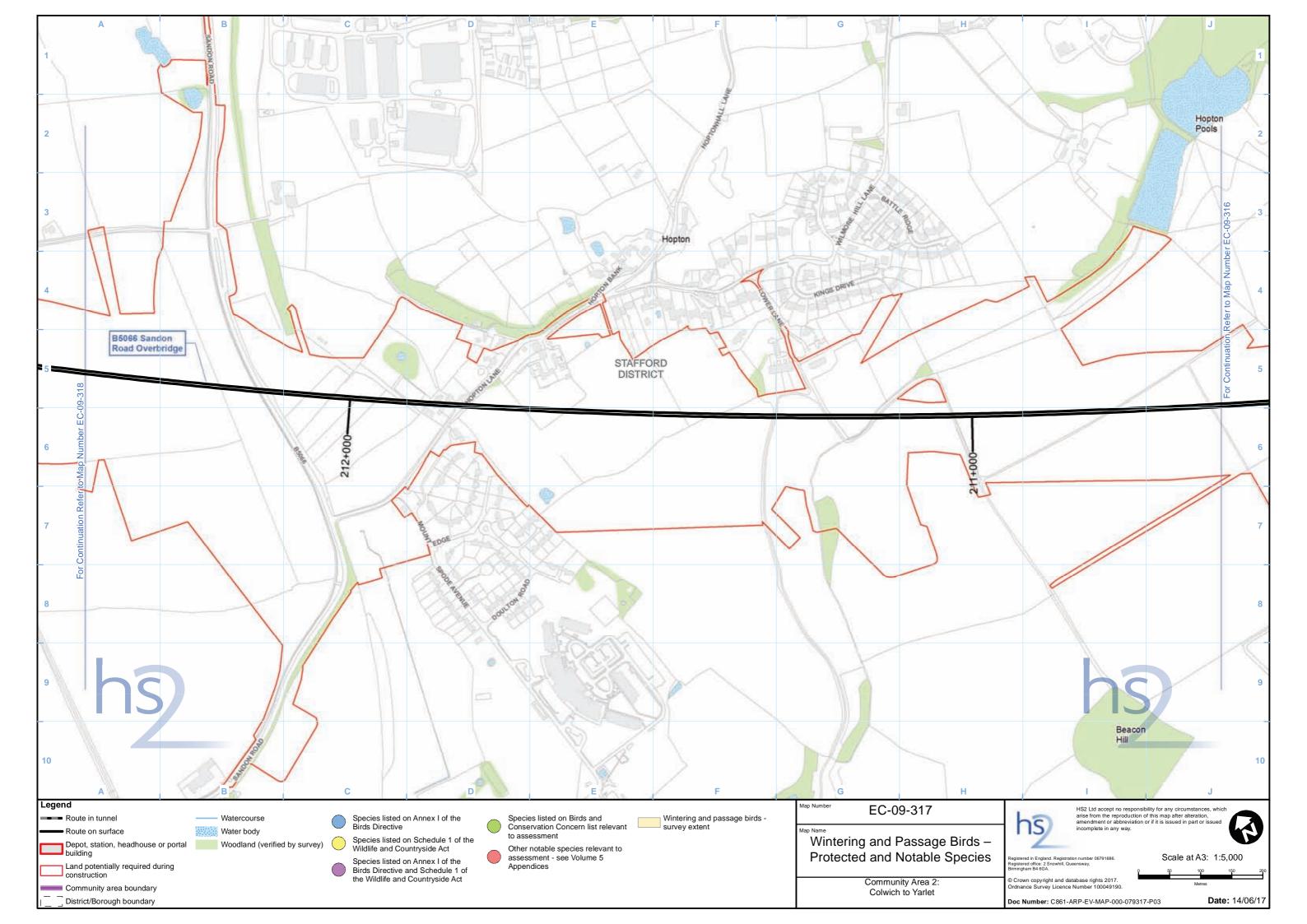


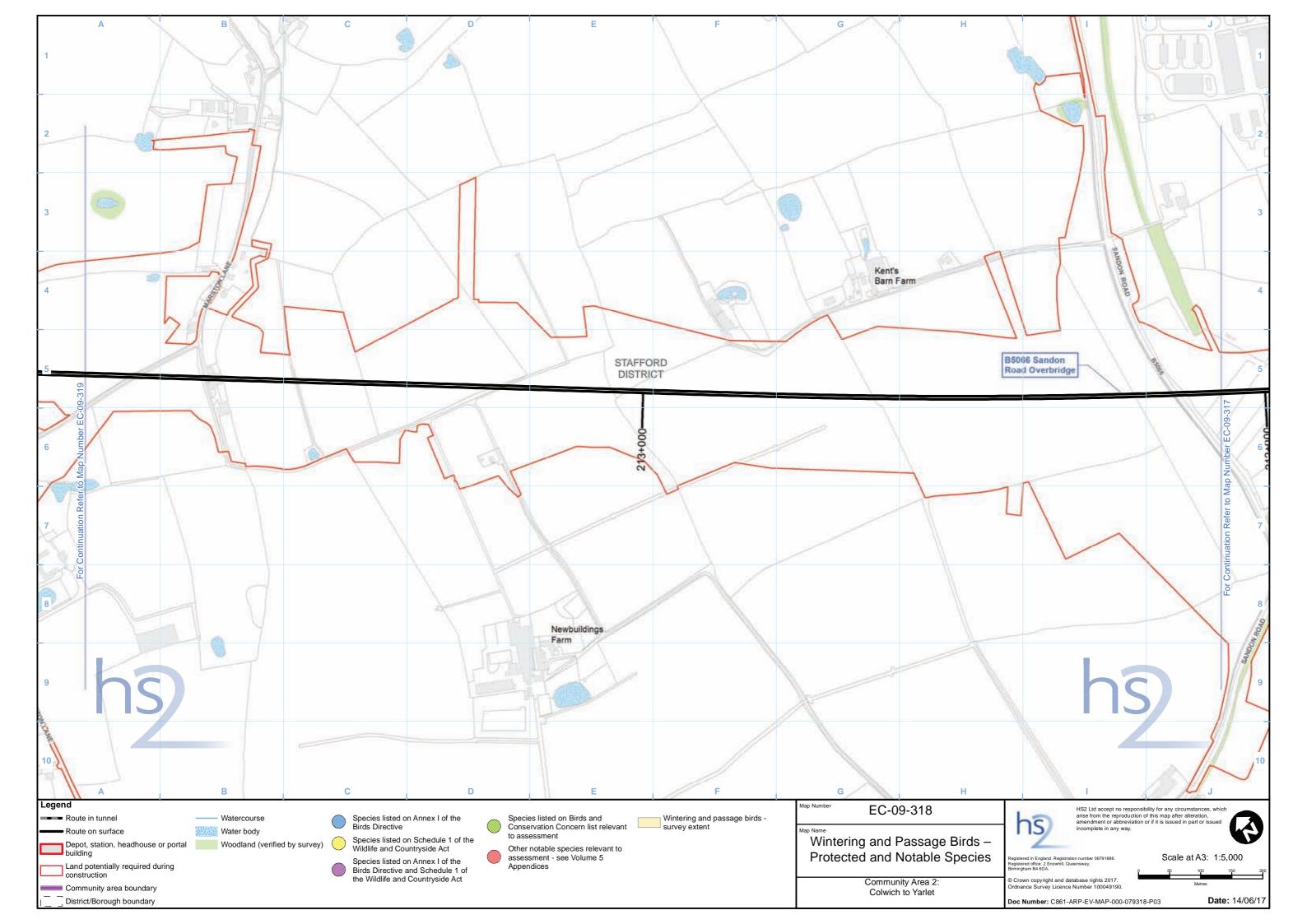


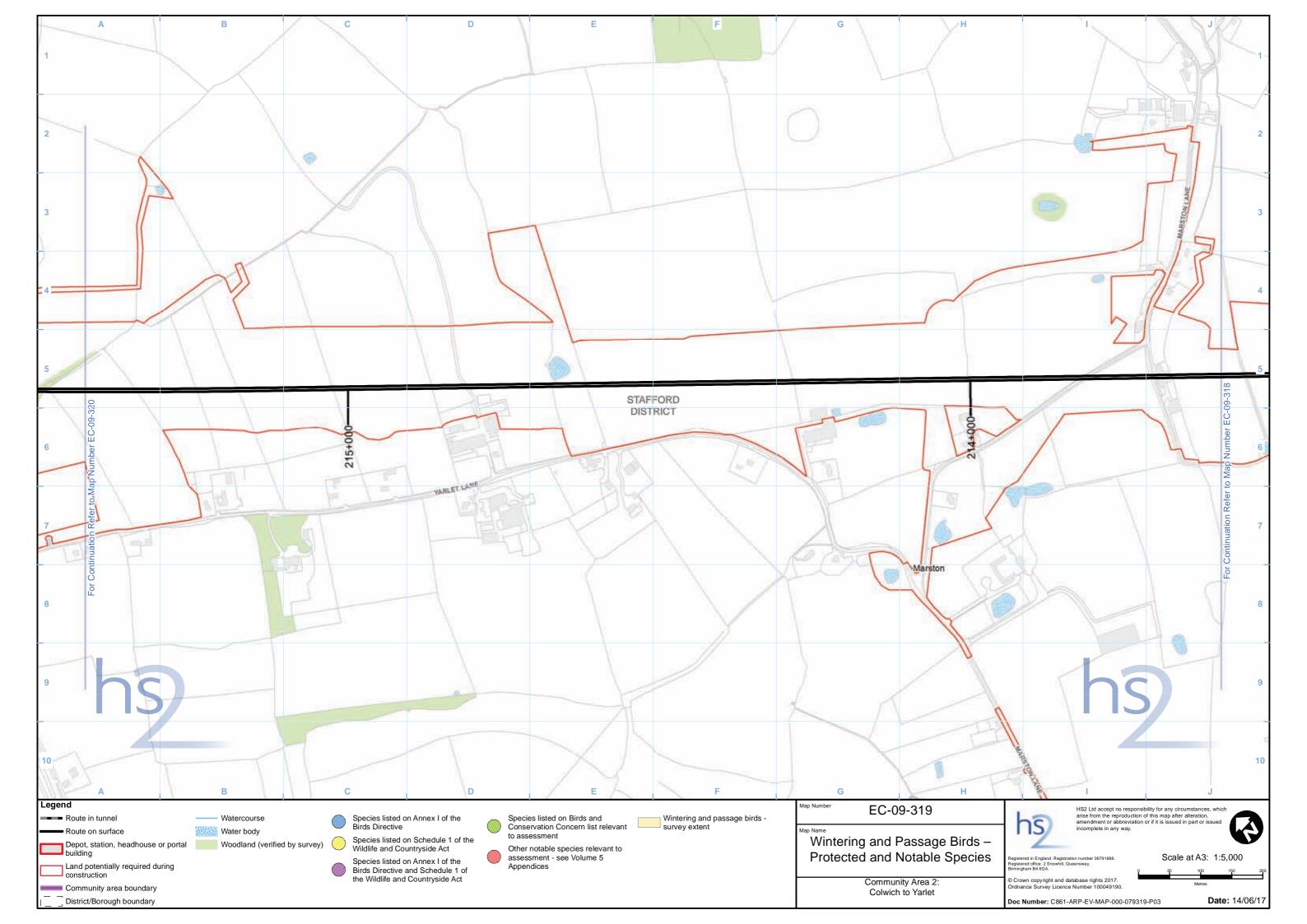


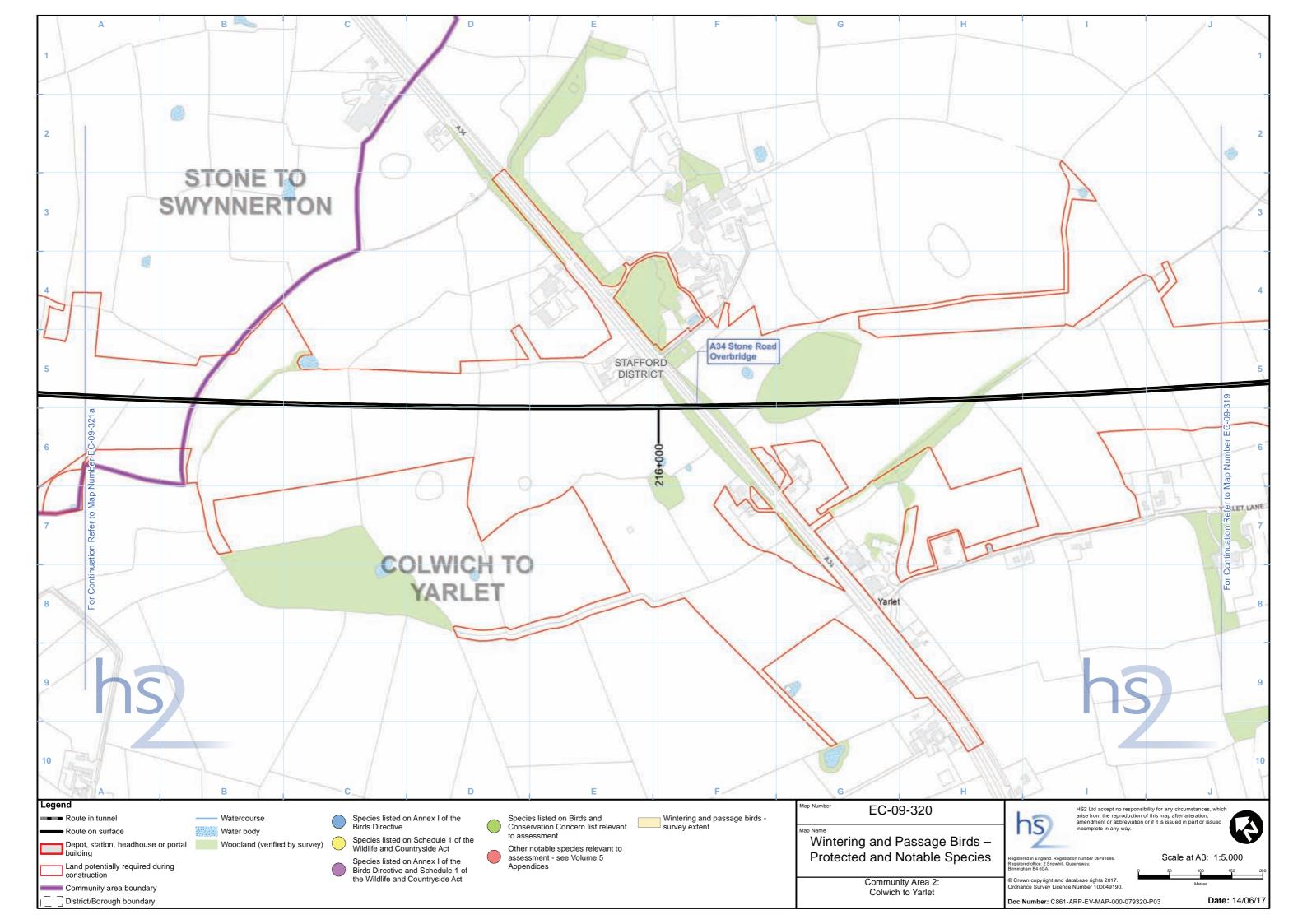


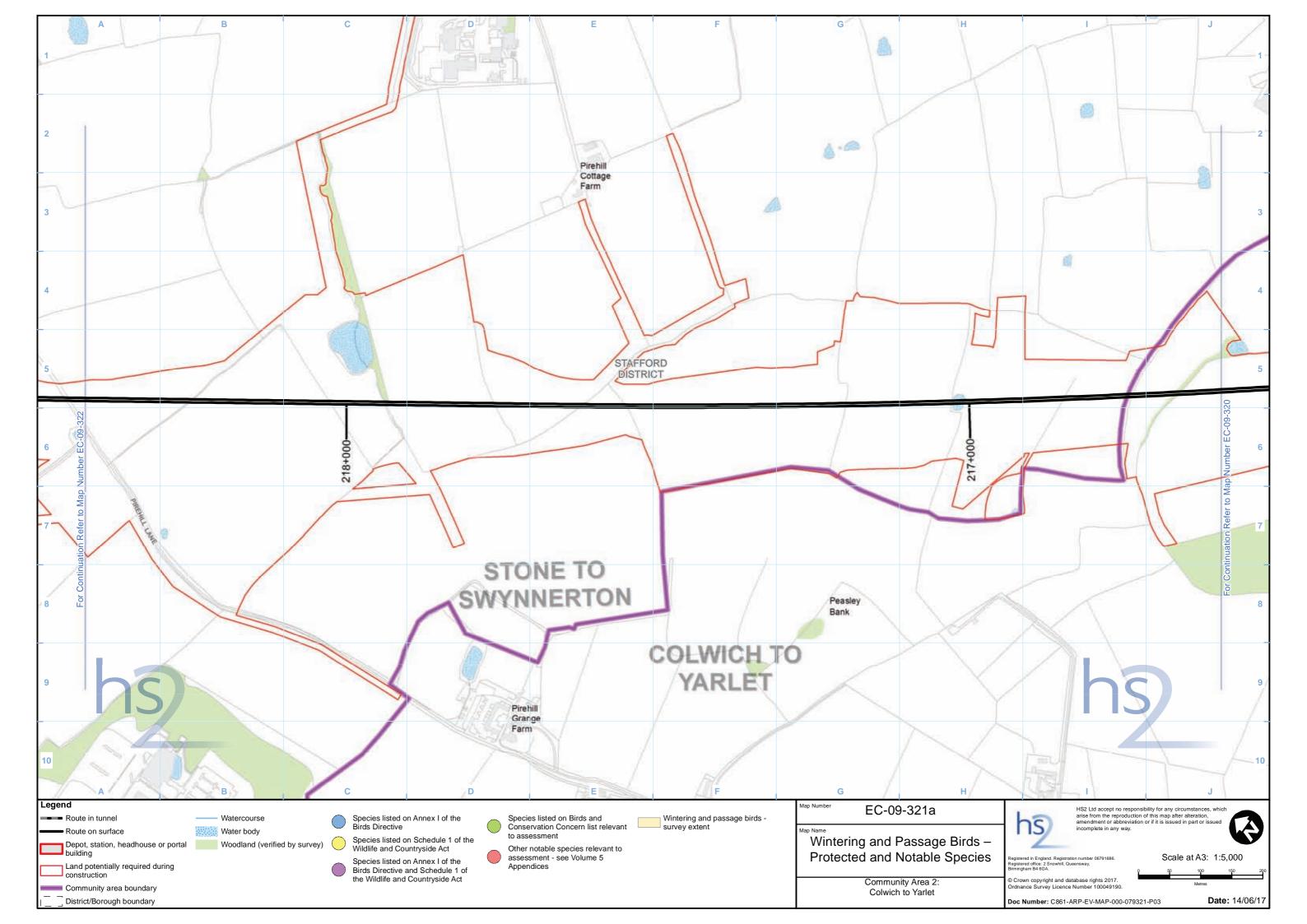












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