M5 Junction 10 **Improvements** Scheme

Environmental Statement Appendix 7.2 Hedgerow Survey TR010063 - APP 6.15

Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009



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The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

M5 Junction 10 Improvements Scheme

Development Consent Order 202[x]

6.15 Environmental Statement: Appendix 7.2 Hedgerow Survey

Regulation Number:	Regulation 5(2)(a)
Planning Inspectorate Scheme	TR010063
Reference	
Application Document Reference	TR010063/APP/6.15
Author:	M5 Junction 10 Improvements Scheme Project Team

Date	Status of Version
December 2023	DCO Application





Contents

Cha	oter Pa	ge
1. 1.1. 1.2.	Introduction Terms of Reference Legislation and Policy	5 5 5
2. 2.1. 2.2. 2.3. 2.4. 2.5. 2.6.	Methodology Introduction Desk Study Survey Area Field Survey Assessment Limitations	6 6 6 6 6 9 9
3.	Results	11
4.	Evaluation	12
Appe	ndix A. Schedule of figures included in this application document	14
Appe	ndix B. Summary of Findings against the Hedgerow Regulations 1997	20
Tabl	es es	
Table	1-1 - Summary of Relevant Legislation B-1 Summary of Findings against the Hedgerow Regulations 1997 for 39 hedgerows withi cheme Boundary	5 n 20



1. Introduction

1.1. Terms of Reference

- 1.1.1. Atkins, member of the SNC-Lavalin group, was commissioned by Gloucestershire County Council (GCC) to undertake hedgerow surveys to inform the Environmental Statement (ES) for the M5 Junction 10 Improvements Scheme (hereafter referred to as 'the Scheme').
- 1.1.2. The purpose of the hedgerow surveys was to determine whether hedgerows of ecological importance are present within the Scheme area; provide recommendations to enable compliance with legislation and policy; and, where appropriate, identify the need for avoidance, mitigation, compensation, or enhancement measures.
- 1.1.3. This Technical Appendix summarises the results of the hedgerow surveys undertaken, including the methods used, and provides an evaluation of the nature conservation value of hedgerows within the survey area.
- 1.1.4. This report provides factual information to support the ES, which will accompany the planning application for the Scheme.

1.2. Legislation and Policy

1.2.1. Relevant legislation in relation to hedgerows is provided in Table 1-1 below.

Table 1-1 - Summary of Relevant Legislation

Legislation/guidance	Further information
The Hedgerows Regulations 1997	These regulations introduce a requirement to notify the local planning authority of any proposed hedgerow removal unless covered by an exemption. The local authority may prohibit removal where a hedgerow meets the criteria for 'important hedgerows', as defined by the regulations.
Natural Environment and Rural Communities (NERC) Act 2006	S.40 of the NERC Act 2006 (as amended by the Environment Act 2021) sets out the duty for public authorities to enhance biodiversity in England. Habitats and species of principal importance for the conservation of biodiversity identified by the Secretary of State for England, in consultation with Natural England, are referred to in S.41 of the NERC Act for England. The list, known as the 'England Biodiversity List', includes hedgerows as a habitat of principal importance (also referred to as a 'priority habitat'). To qualify as a priority habitat, a hedgerow must consist predominantly (i.e. at least 80% cover) of at least one woody UK native species¹. The England Biodiversity List is used as a guide for decision makers such as public bodies, including local and regional authorities, in implementing their duty under Section 40 of the NERC Act 2006 to have regard to the conservation of biodiversity in England Biodiversity List priority habitats, including hedgerows, were previously listed in the UK Biodiversity Action Plan (BAP)².

¹ Maddock, A. (ed) (2008). *UK Biodiversity Action Plan Priority Habitat Descriptions – Hedgerows*. Online: https://data.jncc.gov.uk/data/ca179c55-3e9d-4e95-abd9-4edb2347c3b6/UKBAP-BAPHabitats-17-Hedgerows.pdf

² https://jncc.gov.uk/our-work/uk-bap-priority-habitats/ [Accessed: 21/09/22]

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2. Methodology

2.1. Introduction

- 2.1.1. Unless otherwise stated, the term 'Scheme Boundary' refers to the Order limits, excluding areas of the Order limits that extend approximately 2 km north and 2 km south of the Scheme alignment, along the M5. In these locations, the Scheme Boundary is the Scheme alignment. The Order limits and the Scheme alignment are shown on Figure 7-2A in Appendix A.
- 2.1.2. Within the areas of the Order limits that extend north and south of the Scheme alignment, the only works proposed are the installation of signs in discrete locations, which will require vegetation clearance of up to approximately 20 m² plus some minor trimming back of vegetation up to a distance of 180 m in front of the sign to ensure visibility. These signage locations can be micro sited to avoid/minimise ecological impacts. These small-scale works are consistent with routine highway maintenance works. The results of desk study and field surveys here would not have any bearing on the impact assessment for the Scheme, and these areas have been excluded from assessments to inform the ES. Pre-construction surveys of the discrete signage locations and working with the contractor to micro site locations where appropriate to avoid or minimise ecological impacts will be untaken, and is considered to be proportionate.

2.2. Desk Study

2.2.1. Ordnance Survey (OS) mapping and aerial imagery provided on the MAGIC website³ were reviewed to identify potentially important hedgerows within 200 m of the Scheme Boundary.

2.3. Survey Area

- 2.3.1. The extent of the hedgerow survey included all land within the Scheme Boundary and a 200 m buffer extending out in all directions from the Scheme Boundary where permitted and safe access allowed, hereafter referred to as the Hedgerow Survey Area, as shown on Figure 7-2A in Appendix A.
- 2.3.2. A Hedgerow Survey Area of 200 m from the Scheme Boundary is considered appropriate as this is in line with potential air quality impacts to habitats as a result of nitrogen deposition from road traffic emissions, and is the likely maximum distance over which there would be impacts to terrestrial habitats as a result of the Scheme. LA 105⁴ states that designated habitats (European Sites, statutory and non-statutory designated nature conservation sites, nature improvement areas, areas of ancient woodland and veteran trees) within 200 m of the Affected Road Network (ARN) should be included in the air quality assessment. Although hedgerows do not fall into the category of 'designated habitats' as defined by LA 105, it is considered appropriate to maintain this zone of influence for consistency.

2.4. Field Survey

2.4.1. Surveys were led by suitably experienced ecologists who are members of the Chartered Institute of Ecology and Environmental Management (CIEEM) and considered competent

³ <u>https://magic.defra.gov.uk/MagicMap.aspx</u>

⁴ Highways England (2019). Design Manual for Roads and Bridges. LA 105 Air Quality (formerly HA 207/07, IAN 170/12, IAN 174/13, IAN 175/13, part of IAN 185/15). (November 2019, version 0) Online:



to undertake Phase 1 habitat and hedgerow surveys in accordance with the CIEEM competency criteria⁵.

- 2.4.2. An extended Phase 1 habitat survey of accessible land within 200 m of the Scheme was undertaken by Atkins in May 2019, and in September 2019 once permitted access was available. These surveys identified and mapped habitats in accordance with the Phase 1 habitat survey methodology⁶, which included the recording of species-rich/species-poor hedgerows, intact/defunct hedgerows, and hedgerows with/without trees. An intact hedgerow is entire and more-or-less stockproof, whereas a defunct hedgerow has gaps and is no longer stockproof. The Phase 1 habitat survey methodology does not specify the criteria for species-rich/species-poor hedgerow and hedgerows with/without trees. Therefore, these definitions and the definitions of a hedgerow were taken from the Hedgerow Survey Handbook⁷:
 - Hedgerow: any boundary line of trees or shrubs over 20 m long and less than 5 m wide at the base, provided that at one time the trees or shrubs were more or less continuous:
 - Species-rich hedgerow: the structural species making up the 30 m section of hedgerow include at least five woody species that are either native somewhere in the UK, or which are archaeophytes;
 - Species-poor hedgerow: the structural species making up the 30 m section of hedgerow is less than five woody species that are either native somewhere in the UK, or which are archaeophytes;
 - With trees: tall trees less than 20 m apart over most of the hedgerow length; and
 - Without trees: tall trees absent or more than 20 m apart over most of the hedgerow length.
- 2.4.3. An update extended Phase 1 habitat survey was undertaken in May and June 2022 to determine whether any of the baseline conditions had changed significantly since 2019. This survey focused on hedgerows within the Scheme Boundary.
- 2.4.4. Hedgerows identified as being potentially important, located either partially or entirely within the Scheme Boundary, were subject to a targeted hedgerow survey, where permitted and safe access allowed, to determine their importance in accordance with The Hedgerow Regulations 1997. This assessment only applies to those hedgerows within the Scheme Boundary, that would be directly impacted by the Scheme.
- 2.4.5. Targeted hedgerow surveys were undertaken between June and August 2019, in June 2021, and in May and June 2022. The survey methodology followed the guidelines provided in the Hedgerow Survey Handbook.
- 2.4.6. During the surveys, the following were recorded:
 - General height and width of the hedgerow;
 - Number and length of any gaps;
 - Presence of banks, walls, and ditches;
 - Presence, number and spacing of standard trees;
 - Adjacent land use and proximity of ecological features such as ponds, woodlands or parallel hedgerows, and any connections to other hedgerows not evident on existing maps;
 - The presence and abundance of woody species listed on Schedule 3 of The Hedgerows Regulations 1997 within representative 30 m sections;

⁶ Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey – a technique for environmental audit

⁷ DEFRA (2007). Hedgerow Survey Handbook. A standard procedure for local surveys in the UK. DEFRA, London



- The presence and abundance of species listed on Schedule 2 of The Hedgerows Regulations 1997 within ground flora to a distance of 1 m from the hedgerow base;
- Evidence of past or recent management; and
- Evidence of use by animal species, in particular protected species8.
- 2.4.7. Following the survey, hedgerows were assessed against the wildlife criteria for determining 'important' hedgerows, as set out in Schedule 1, Part 2 of The Hedgerow Regulations 1997. The identified hedgerows were not assessed against the landscape, heritage and archaeology criteria as these criteria are not within the professional remit of ecology. As detailed within The Hedgerow Regulations 1997, in the UK a hedgerow is important for wildlife if it is at least 30 years old and:
 - Contains protected species listed in the Wildlife and Countryside Act 1981 (as amended); or
 - Contains species that are endangered, vulnerable and rare and identified in the British Red Data books; or
 - · Has at least seven qualifying woody species present; or
 - Has at least six qualifying woody species and has associated with it at least three associated features (refer to Section 2.4.8); or
 - Has at least six qualifying woody species that include one of the following: black poplar, large-leaved lime, small-leaved lime, wild service-tree; or
 - Has at least five qualifying woody species and has associated with it at least four associated features (refer to Section 2.4.8); or
 - Runs parallel with a bridleway, footpath or Byway Open to all Traffic (BOAT), has four or more qualifying woody species present and at least two associated features (refer to Section 2.4.8).
- 2.4.8. Associated features listed in Schedule 1, Part 2 of the Hedgerow Regulations include:
 - A bank or wall which supports the hedgerow along at least one half of its length;
 - Gaps which in aggregate do not exceed 10% of the length of the hedgerow;
 - Where the length of the hedgerow does not exceed 50 m, at least one standard tree;
 - Where the length of the hedgerow exceeds 50 m but does not exceed 100 m, at least two standard trees;
 - Where the length of the hedgerow exceeds 100 m, such number of standard trees (within any part of its length) as would when averaged over its total length amount to at least one for each 50 m;
 - At least three woodland species within 1 m, in any direction, of the outermost edges of the hedgerow;
 - A ditch along at least one half of the length of the hedgerow;
 - Connections scoring four points or more (a connection with another hedgerow scores one point and a connection with a pond or a woodland in which the majority of trees are broad-leaved trees scores two points; and a hedgerow is connected with something not only if it meets it but also if it has a point within 10 m of it and would meet it if the line of the hedgerow continued); and
 - A parallel hedge within 15 m of the hedgerow.

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⁸ The results of other protected species undertaken to inform the ES were also reviewed.



2.4.9. Where the age of hedgerows was not known, a precautionary approach was taken to the assessment of 'important' hedgerows based on professional judgement. All well-established mature hedgerows were assumed to be at least 30 years old unless there was evidence or knowledge that would cast doubt on this.

2.5. Assessment

- 2.5.1. The hedgerow resource has been valued in a geographical context following the framework provided in LA 1089. The evaluation is based on the information gathered from the desk study and field surveys, using a combination of professional judgement and accepted criteria¹⁰ (e.g. diversity, rarity, and naturalness).
- 2.5.2. For those hedgerows which will be directly impacted by the Scheme, following the field survey the results were assessed against the wildlife and landscape criteria for determining 'important' hedgerows set out in Schedule 1, Part 2 of The Hedgerow Regulations 1997.

2.6. Limitations

- 2.6.1. Ecological surveys are limited by factors which affect the presence of plants and appearance of habitats, such as time of year, recent management (e.g. flailing) and the weather. Therefore, the surveys have not produced a complete list of plants and the absence of any particular species should not be taken as conclusive proof that the species is not present or that it will not be present in the future.
- 2.6.2. The optimal period for hedgerow survey is June-July, to capture woody species in flower and spring ground flora¹¹. Whilst the majority of hedgerow surveys were undertaken during this optimum period, a small number were undertaken in August. Despite being undertaken outside of the optimum period, the surveys were only slightly outside of it, and still at an appropriate time of year for botanical identification. Therefore, it is considered unlikely that this would have resulted in misidentification or omission of flora and is not considered a significant constraint to the hedgerow surveys.
- 2.6.3. Of the 152 hedgerows identified for survey within the Hedgerow Survey Area, 23 were not surveyed, as permitted access was not available. In these instances, attempts were made to survey the hedgerow from adjacent land parcels. Alternatively, existing Phase 1 habitat survey data and/or aerial imagery were used to classify these hedgerows. Where it was not possible to classify hedgerows with confidence (this was the case for 16 hedgerows), they have been identified as 'Hedgerow No Access' on Figure 7-2A. None of these will be impacted by the Scheme. A total of 89% of hedgerows within the Hedgerow Survey Area were either surveyed, or it was possible to accurately classify them based on observations from adjacent land parcels, previous survey data or aerial imagery. The survey coverage is considered sufficient to enable a robust assessment of the value of the hedgerow resource within the Hedgerow Survey Area. Given that it was possible to survey all hedgerows within the Scheme Boundary, this has also enabled a robust assessment of impacts to be undertaken within the Biodiversity Chapter (application document TR010063 APP 6.5).
- 2.6.4. Only one 30 m section of hedgerows H195, H196, and HT46 was surveyed, even though the hedgerows are over 100 m in length and, therefore, two 30 m sections should have been surveyed. Likewise, only two 30 m sections of the hedgerow H160 were surveyed, even though the hedgerow is over 200 m in length and, therefore, three 30 m sections should have been surveyed. The reason for this was the surveyors under-estimated the lengths during the survey. However, all woody species within the entire length of the hedgerows were recorded and all four of these hedgerows are species-poor, with no more

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⁹ Highways England. March 2020. LA 108 Biodiversity [Online] Available from: https://www.standardsforhighways.co.uk/dmrb/search?discipline=SUSTAINABILITY_AND_ENVIRONMENT

¹⁰ Set out in Ratcliffe, D.A (1977). A Nature Conservation Review. Cambridge University Press.

¹¹ DEFRA (2007). Hedgerow Survey Handbook. A standard procedure for local surveys in the UK. DEFRA, London.

M5 Junction 10 Improvements Scheme Environmental Statement Appendix 7.2 Hedgerow Survey TR010063 – APP 6.15



than three woody species in the whole hedgerow, except H160 which had five woody species in the whole hedgerow. Therefore, this is not considered to have resulted in under-estimating the importance of these hedgerows.

2.6.5. Overall, the results of this survey work are considered sufficient to inform an ecological assessment of the hedgerow resource relevant to the Scheme.



3. Results

- 3.1.1. A total of 152 hedgerows were identified from aerial imagery and OS maps within 200 m of the Scheme Boundary (the Hedgerow Survey Area). Of these, 23 were not surveyed as access was not permitted. However, seven of these were confidently classified as species-poor hedgerows based on observations from adjacent land parcels, previous survey data or aerial imagery, (see Section 2.5 Limitations above for further details). The remaining 16 hedgerows were not classified to the Phase 1 criteria and are marked as 'Hedgerow No Access' on Figure 7-2A.
- 3.1.2. A total of 129 hedgerows were surveyed.
- 3.1.3. A total of 14 hedgerows were found to be species-rich, i.e. an average of at least five woody species per 30 m length of a hedgerow. These are: H49, H87, H89, H94, H115, H147, H150, H158, H171, H177, HT10, HT20, HT32, and HT35. The remaining 115 hedgerows were found to be species-poor. The locations and classification of the hedgerows within the Hedgerow Survey Area are shown in Figure 7-2A.
- 3.1.4. The most abundant species included hawthorn (*Cratageus monogyna*) and blackthorn (*Prunus spinosa*). Other species frequently recorded included field maple (*Acer campestre*), elder (*Sambucus nigra*), dog rose (*Rosa canina*), wild privet (*Ligustrum vulgare*), butterfly-bush (*Buddleja davidii*), hazel (*Corylus avellana*), elm (*Ulmus sp.*), dogwood (*Cornus sanguinea*), apple (*Malus domestica*) and ash (*Fraxinus excelsior*).
- 3.1.5. Thirty-nine hedgerows were present within the Scheme Boundary that would be directly impacted by the Scheme, all of which were assessed against the wildlife and landscape criteria for determining 'important' hedgerows set out in Schedule 1, Part 2 of The Hedgerow Regulations 1997. Fourteen hedgerows (H48, H49, H87, H90, H177, H199a, H200, H207, H208, HT10, HT18, HT44, HT45, and HT46) are 'important' as per The Hedgerow Regulations 1997 (12 of these are 'important' as evidence of dormouse has been confirmed (one hedgerow) or the presence of dormouse is assumed (11 hedgerows)). The survey results in relation to these hedgerows are detailed in Table B-1 in Appendix B.



4. Evaluation

- 4.1.1. A total of 152 hedgerows were identified within the Hedgerow Survey Area. A total of 129 hedgerows were surveyed. Fourteen were found to be species-rich and 115 were species-poor. Twenty-three hedgerows could not be surveyed due to access restrictions. However, it was possible to classify seven of these as species-poor hedgerows based on observations from adjacent land parcels, previous survey data or aerial imagery.
- 4.1.2. Of the 129 hedgerows surveyed, 121 were found to consist predominantly (i.e. 80% or more cover) of at least one woody UK native species and, therefore, qualify as a priority habitat¹².
- 4.1.3. Fourteen hedgerows within the Hedgerow Survey Area (H48, H49, H87, H90, H177, H199a, H200, H207, H208, HT10, HT18, HT44, HT45, and HT46) are 'Important', as defined by the wildlife and landscape criteria set out in Schedule 1 of The Hedgerows Regulations 1997.
- 4.1.4. LA 108¹³ advises that UK BAP priority habitats and habitats of principal importance should be considered to be of national nature conservation value. However, the majority of the hedgerows within the Hedgerow Survey Area are species-poor, and only relatively short stretches of hedgerow are present within the Scheme Boundary. Furthermore, although there has been loss of hedgerows and field boundaries in recent decades due to agricultural intensification, hedgerows and hedgerows with trees are frequent throughout Gloucestershire.
- 4.1.5. Taking all of this into consideration, the hedgerow network within the zone of influence of the Scheme is considered to enrich the habitat resource within the local context, providing ecological connectivity and is, therefore, considered to be of Local nature conservation importance.

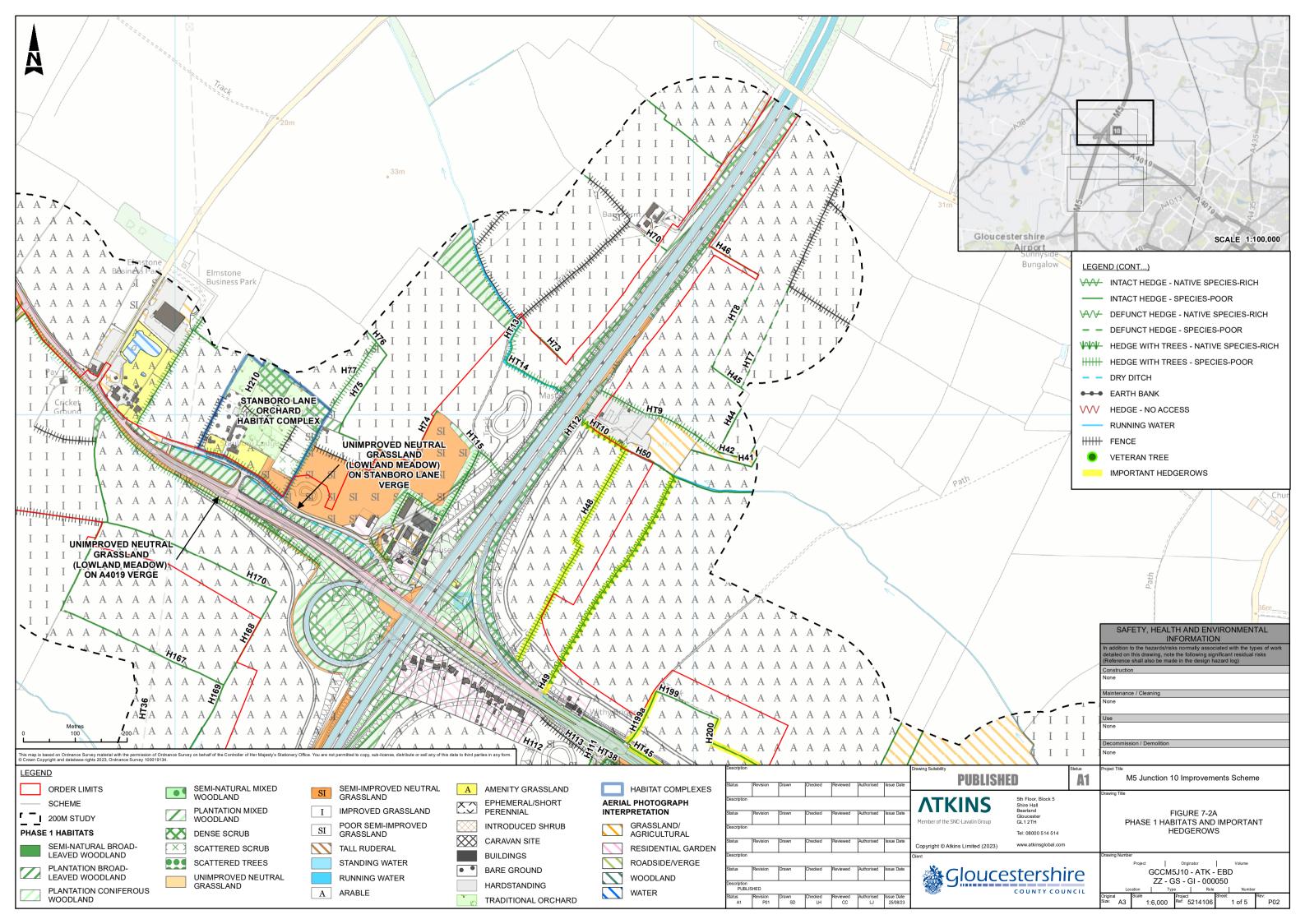
¹² Maddock, A. (ed) (2008). *UK Biodiversity Action Plan Priority Habitat Descriptions – Hedgerows*. Online: https://data.jncc.gov.uk/data/ca179c55-3e9d-4e95-abd9-4edb2347c3b6/UKBAP-BAPHabitats-17-Hedgerows.pdf

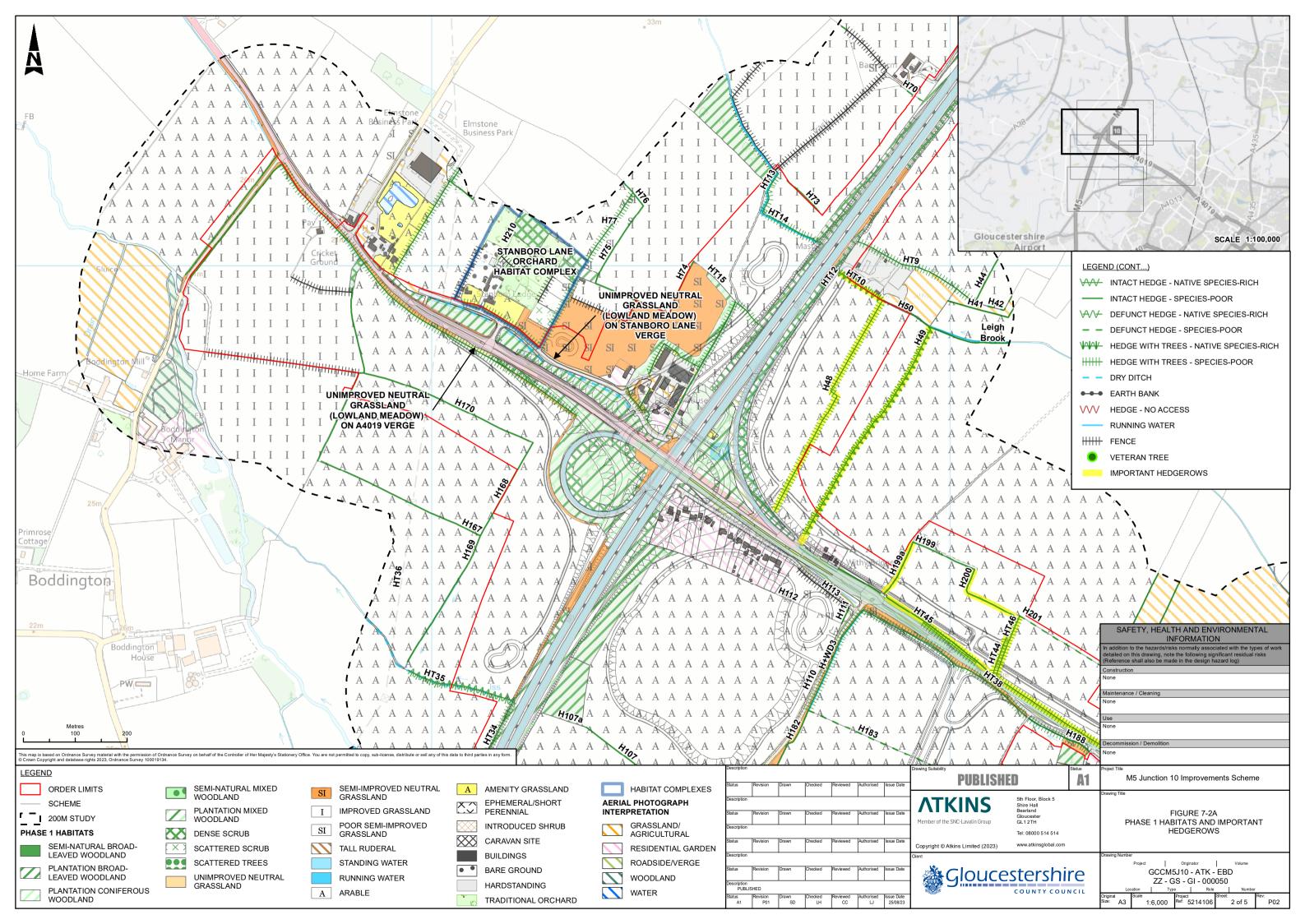
¹³ Highways England (2020). Design Manual for Roads and Bridges. LA 108 Biodiversity (formerly Volume 11, Section 3, Part 4 Ecology and Nature Conservation and IAN 130/10). (March 2020, version 1). Online: https://www.standardsforhighways.co.uk/dmrb/search?discipline=SUSTAINABILITY_AND_ENVIRONMENT.

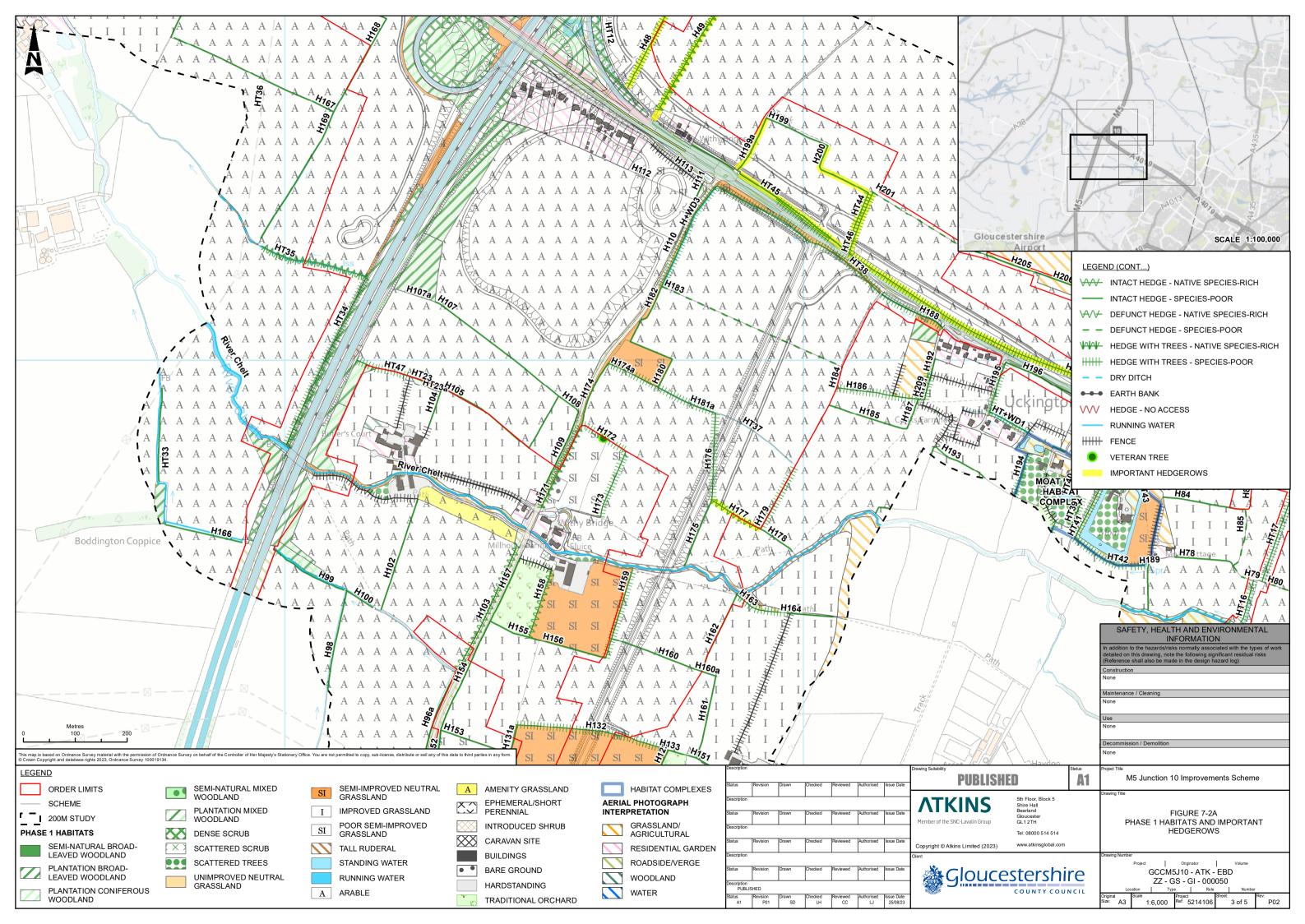
Appendices

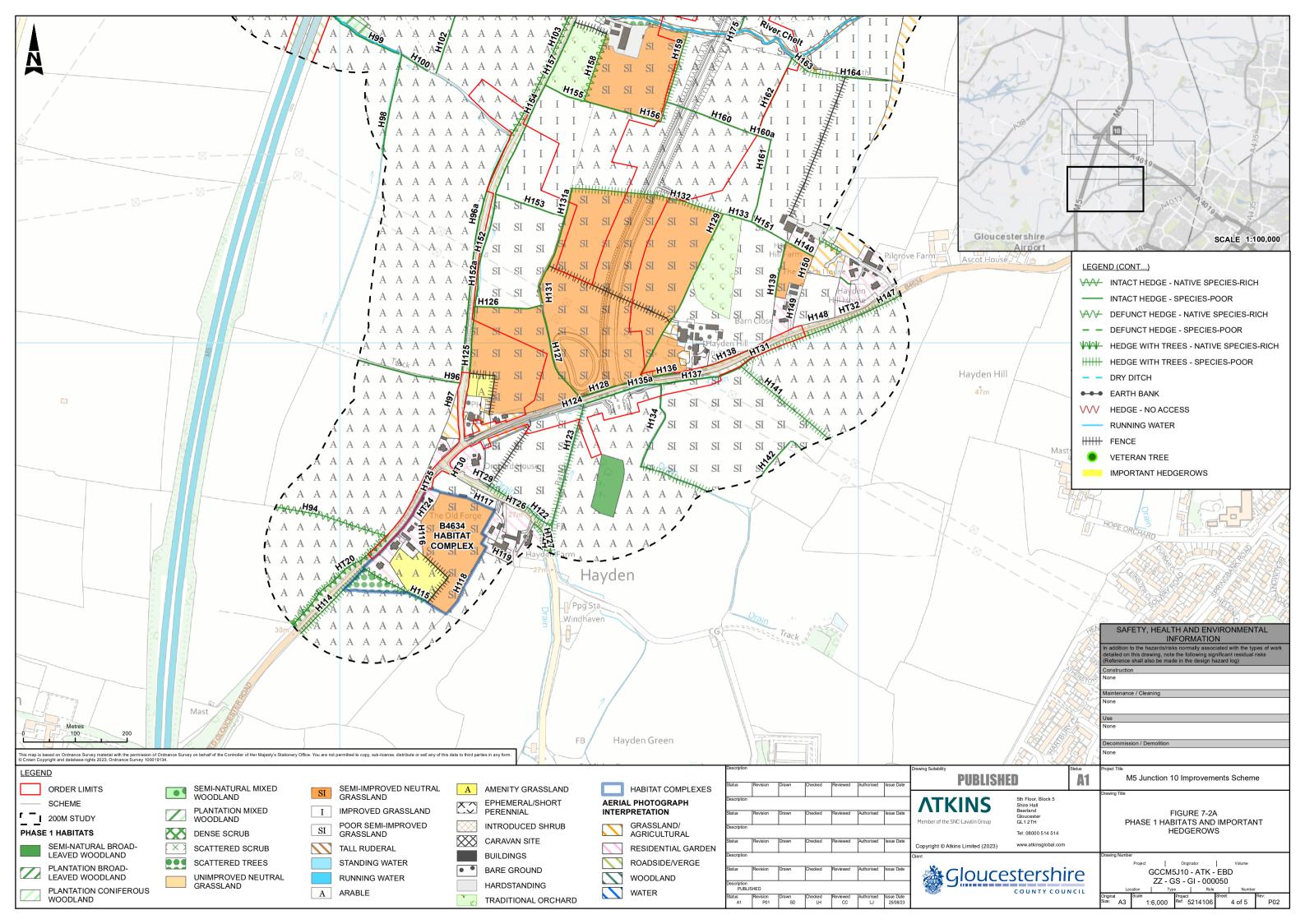
Appendix A. Schedule of figures included in this application document

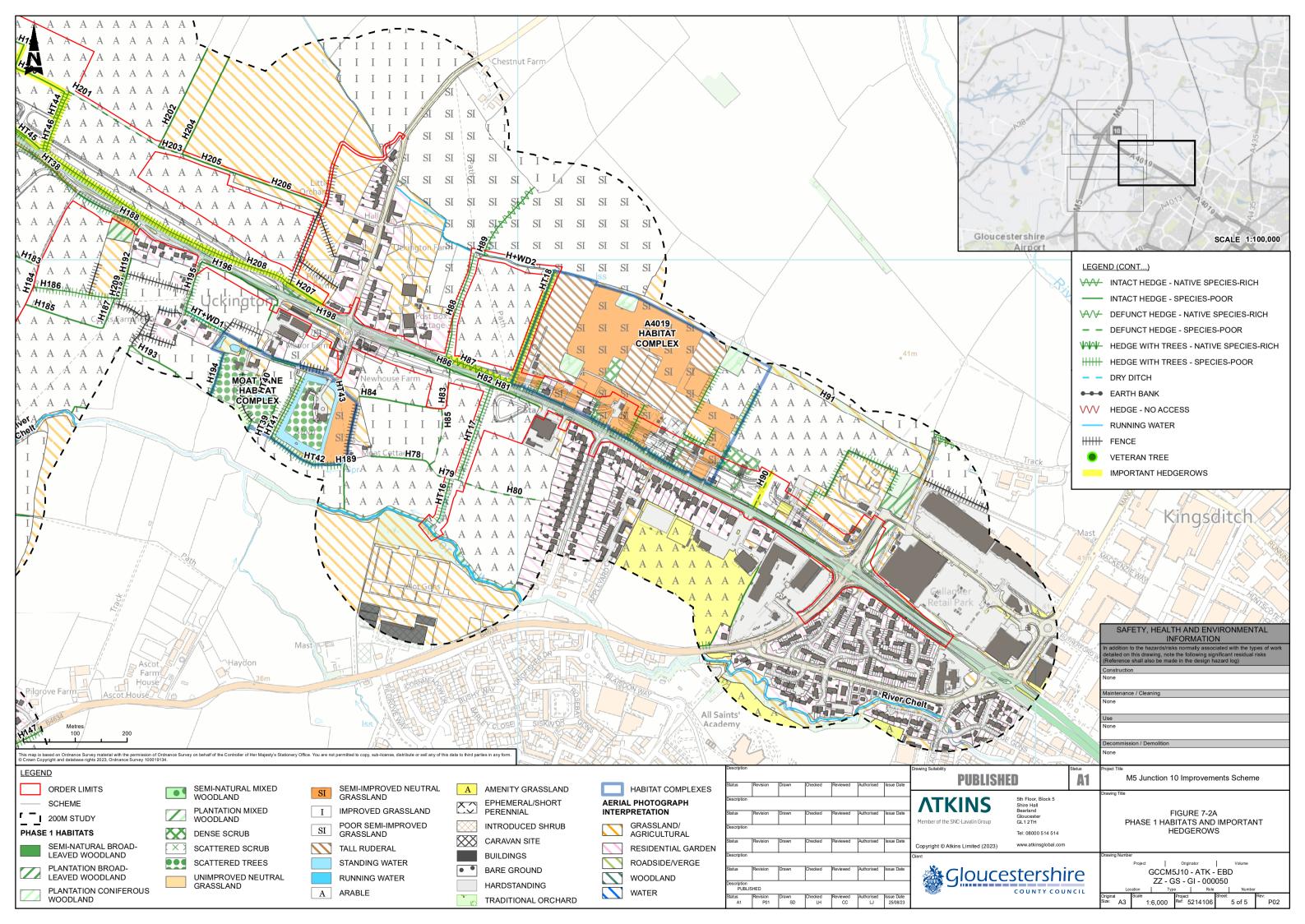
Figure reference	Document title	Sheet	Document number	Revision
7-2A	Phase 1 Habitats and Important Hedgerows	1 of 5	GCCM5J10-ATK-EBD- ZZ-GS-GI-000050	0
7-2A	Phase 1 Habitats and Important Hedgerows	2 of 5	GCCM5J10-ATK-EBD- ZZ-GS-GI-000050	0
7-2A	Phase 1 Habitats and Important Hedgerows	3 of 5	GCCM5J10-ATK-EBD- ZZ-GS-GI-000050	0
7-2A	Phase 1 Habitats and Important Hedgerows	4 of 5	GCCM5J10-ATK-EBD- ZZ-GS-GI-000050	0
7-2A	Phase 1 Habitats and Important Hedgerows	5 of 5	GCCM5J10-ATK-EBD- ZZ-GS-GI-000050	0













Appendix B. Summary of Findings against the Hedgerow Regulations 1997

Table B-1 Summary of Findings against the Hedgerow Regulations 1997 for 39 hedgerows within the Scheme Boundary

Hedgerow ID	Length (m)	Width (m)	Height (m)	Number of 30 m sections surveyed	Woody species recorded	Woody species average per 30 m section	Importance in respect of wildlifeand landscape criteria, Schedule 1 of the Hedgerow Regulations (1997) and rationale
H+WD3	222	2	2.25	3	Blackthorn Alder Field maple Elder English elm Buckthorn	1.66	No
H48	470	3	2	3	Blackthorn Dogwood Crab apple Common hawthorn Rose sp.	3.33	Yes – meets criteria 6.3.a – assumed to support hazel dormouse a Wildlife and Countryside Act 1981 Schedule 5 species
H49	493	2	1.75	3	Hawthorn Blackthorn Field maple Dogwood Elder Grey willow Ash Crab apple	5.67	Yes – meets criteria 6.3.a – assumed to support hazel dormouse a Wildlife and Countryside Act 1981 Schedule 5 species



Hedgerow ID	Length (m)	Width (m)	Height (m)	Number of 30 m sections surveyed	Woody species recorded	Woody species average per 30 m section	Importance in respect of wildlifeand landscape criteria, Schedule 1 of the Hedgerow Regulations (1997) and rationale
H81	102	2	4	2	Hawthorn Elder	1.5	No
H82	89	2	4	1	Hawthorn Elder	2	No
H83	83	1.5	3	1	Hawthorn Elder Blackthorn	3	No
H86	124	2	4	2	Hawthorn Elder	1.5	No
Н87	141	0.5	1.5	2	Hawthorn Blackthorn Elder Buckthorn Hybrid crack willow Norway maple Way-fairing tree Lombardy poplar	5	Yes – meets criteria 6.3.a – assumed to support hazel dormouse a Wildlife and Countryside Act 1981 Schedule 5 species
H90	77	2.5	1.25	1	Blackthorn Prunus sp. Elder	2	Yes – meets criteria 6.3.a – assumed to support hazel dormouse a Wildlife and Countryside Act 1981 Schedule 5 species
H110	469	1.5	2	3	Blackthorn Hawthorn Cherry sp.	4.33	No



Hedgerow ID	Length (m)	Width (m)	Height (m)	Number of 30 m sections surveyed	Woody species recorded	Woody species average per 30 m section	Importance in respect of wildlifeand landscape criteria, Schedule 1 of the Hedgerow Regulations (1997) and rationale
					Ash English elm Privet Dogwood Field maple		
H112	142	2	2.5	2	Hawthorn Blackthorn Crack willow Black willow Walnut	3	No
H123	243	3.5	5	3	Rose sp. Elm sp. Blackthorn Hawthorn Elder Spindle	4.33	No
H127	183	4	5	2	Elder Willow sp. Hawthorn Rose sp. Blackthorn	3.5	No
H128	124	1.5	2.5	2	Hawthorn Blackthorn Elder	3.5	No



Hedgerow ID	Length (m)	Width (m)	Height (m)	Number of 30 m sections surveyed	Woody species recorded	Woody species average per 30 m section	Importance in respect of wildlifeand landscape criteria, Schedule 1 of the Hedgerow Regulations (1997) and rationale
					Privet		
H132	298	2	2	3	Blackthorn Hawthorn Rose sp. Elder Privet Willow sp.	3	No
H134	221	5	1.75	5	Privet Rose sp. Blackthorn Willow sp. Hawthorn Elder Spindle	3.2	No
H136	88	1.5	2.5	1	Hawthorn Privet Sessile oak	1	No
H137	160	2	2.75	2	Blackthorn Privet Rose sp. Hawthorn Elder	2	No
H160	214	1.5	2	2	Hawthorn Blackthorn	4	No



Hedgerow ID	Length (m)	Width (m)	Height (m)	Number of 30 m sections surveyed	Woody species recorded	Woody species average per 30 m section	Importance in respect of wildlifeand landscape criteria, Schedule 1 of the Hedgerow Regulations (1997) and rationale
					Elder Rose sp. Field maple		
H176	168	1.5	2	2	Blackthorn Hawthorn Elder Willow sp.	3	No
H177	110	2.5	2.75	2	Elder Hawthorn Blackthorn Dog rose Fied maple Dogwood Elm Hazel	5	Yes – At least five woody species listed on Schedule 3 per 30 m section, adjacent to a footpath, and two features listed in paragraph 4 (at least 4 connection points and intact; gaps not exceeding 10% of hedgerow).
H183	383	1.5	2.25	3	Elder Hawthorn Cherry sp.	2.66	No
H188	126	1.5	7	2	English elm Elm sp. Blackthorn Willow sp. Ash	3	No
H195	101	1.5	2	1	Hawthorn	2	No



Hedgerow ID	Length (m)	Width (m)	Height (m)	Number of 30 m sections surveyed	Woody species recorded	Woody species average per 30 m section	Importance in respect of wildlifeand landscape criteria, Schedule 1 of the Hedgerow Regulations (1997) and rationale
					Elder Ash		
H196	165	1.5	2	1	Hawthorn Elm sp. Elder	3	No
H198	62	3	6	1	Hawthorn Elder	2	No
H199a	115	1.75	1.75	2	Hawthorn Elder Blackthorn Field maple	2.5	Yes – meets criteria 6.3.a – assumed to support hazel dormouse a Wildlife and Countryside Act 1981 Schedule 5 species
H200	152	1.5	1.5	2	Field maple Blackthorn Elder Hawthorn	3	Yes – meets criteria 6.3.a – assumed to support hazel dormouse a Wildlife and Countryside Act 1981 Schedule 5 species
H207	78	1.25	1.75	1	Hawthorn	1	Yes – meets criteria 6.3.a – assumed to support hazel dormouse a Wildlife and Countryside Act 1981 Schedule 5 species
H208	538	1.5	1.5	3	Hawthorn Cherry sp. Bramble	2	Yes – meets criteria 6.3.a – contains hazel dormouse a Wildlife and Countryside Act 1981 Schedule 5 species
HT10	98	6	4	2	Elm sp. Hawthorn	8	Yes – At least seven woody species listed on Schedule 3 per 30 m section



Hedgerow ID	Length (m)	Width (m)	Height (m)	Number of 30 m sections surveyed	Woody species recorded	Woody species average per 30 m section	Importance in respect of wildlifeand landscape criteria, Schedule 1 of the Hedgerow Regulations (1997) and rationale
					Rose sp. Elder Dogwood Cherry sp. Ash Pedunculate oak Sycamore Willow sp. Field maple		
HT17	194	2	7.5	2	Hawthorn Elder	2	No
HT18	232	0.5	12	3	Poplar sp. Elder Hawthorn Bramble	1	Yes – meets criteria 6.3.a – assumed to support hazel dormouse a Wildlife and Countryside Act 1981 Schedule 5 species
НТ34	358	4	3	3	Hawthorn Elder Blackthorn Dogwood Sycamore	3	No
HT37	178	3	8	2	Hawthorn Elder	2	No
HT38	381	2	7	3	Blackthorn Hawthorn	4	No



Hedgerow ID	Length (m)	Width (m)	Height (m)	Number of 30 m sections surveyed	Woody species recorded	Woody species average per 30 m section	Importance in respect of wildlifeand landscape criteria, Schedule 1 of the Hedgerow Regulations (1997) and rationale
					Elder Apple Field maple Willow sp.		
HT44	118	1.75	2.5	2	Hawthorn Willow sp. Blackthorn	3	Yes – meets criteria 6.3.a – assumed to support hazel dormouse a Wildlife and Countryside Act 1981 Schedule 5 species
HT45	248	2	2.75	3	Hawthorn Elder Ash Elder Unknown sp.	1.33	Yes – meets criteria 6.3.a – assumed to support hazel dormouse a Wildlife and Countryside Act 1981 Schedule 5 species
HT46	125	1	1.5	1	Hawthorn Ash Crack willow	3	Yes – meets criteria 6.3.a – assumed to support hazel dormouse a Wildlife and Countryside Act 1981 Schedule 5 species



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