

# **M3 Junction 9 Improvement**

**Scheme Number: TR010055**

## **6.3 Environmental Statement Appendix 8.1h - Phase 1 Habitat Survey Report 2018**

**APFP Regulation 5(2)(a)**

**Planning Act 2008**

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

**Volume 6**

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## Infrastructure Planning

### Planning Act 2008

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

M3 Junction 9 Improvement  
Development Consent Order 202[x]

<b>6.3 ENVIRONMENTAL STATEMENT- APPENDIX 8.1h: PHASE 1 HABITAT SURVEY REPORT 2018</b>
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# M3 JUNCTION 9 IMPROVEMENT SCHEME

## PCF STAGE 2 PHASE 1 HABITAT SURVEY REPORT

**Highways England**

**Date: March 2018**

Project no:

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## EXECUTIVE SUMMARY

Highways England proposes to undertake improvements to Junction 9 of the M3 (centred on grid reference SU4967 13047). The 'scheme' will seek to create a seamless link between the M3 and A34, which suffers significant congestion.

In order to gather baseline ecological information, a Phase 1 habitat survey was undertaken of a 'field study area' comprising all land within 250m of the 'scheme area' (i.e. the maximum extent of works for all options), an area totalling approximately 187ha (HE551511-WSP-EGN-M3J9PCF2-DR-LE-13361). Urban areas were excluded from the survey as they are considered highly unlikely to pose ecological constraints to the scheme.

The survey was undertaken between March and August 2017.

The field study area, which is traversed by several roads, includes a range of habitats. To the east of the M3, the landscape is dominated by arable land, with associated hedgerows and small areas of woodland. The central area between the A34/A33 and M3 contains a variety of habitats, including grazed semi-improved pastures and several small woodlands of various types. The River Itchen passes northeast to southwest through the north of the field study area and is characterised by a number of interconnected channels with associated wetland and floodplain grasslands.

A Phase 1 habitat map is presented within this report together with habitat photographs and a description of each parcel (HE551511-WSP-EGN-M3J9PCF2-DR-LE-13362 to 13366, Appendix A and Appendix B).

# 1. INTRODUCTION

## 1.1 PROJECT BACKGROUND

1.1.1 Three options have been taken forward to Project Control Framework (PCF) Stage 2 and assessed within the Environmental Assessment Report (EAR) (HE551511-WSP-GEN-M3J9PCF2-RP-LE-00041), namely:

- Option 14: Northbound and Southbound Free Flow Design
- Option 16B: Incremental Delivery – Northbound A34 Free Flow Link
- Option 16C: Incremental Delivery – Southbound A34 Free Flow Design

1.1.2 A full description of the scheme is provided in in the PCF Stage 2 Client Scheme Requirements [REDACTED].

The anticipated maximum extent of the works for all options is shown as ‘the scheme area’ on HE551511-WSP-EGN-M3J9PCF2-DR-LE-13361. For the purposes of ecological assessment, in order to consider indirect effects on adjacent/nearby receptors, a field study area of 250m around the scheme area was defined (HE551511-WSP-EGN-M3J9PCF2-DR-LE-13361). The field study area totals around 187.6 ha.

## 1.2 BRIEF AND OBJECTIVES

1.2.1 In order to gather baseline habitat information to inform the scheme, a Phase 1 habitat survey was undertaken. The brief was to:

- Undertake an extended Phase 1 habitat survey of land within and up to 250m from the options currently under consideration (3 options) excluding urban areas
- Map the habitats present, in line with standard methods (Joint Nature Conservation Committee (JNCC), 2010), and collect an indicative botanical species list for each habitat recorded
- Present the methods and results of the Phase 1 habitat survey in a technical report suitable to inform the subsequent assessment documents



## 2. METHODS

### 2.1 EXTENDED PHASE 1 HABITAT SURVEY

- 2.1.1 A field study area was defined comprising the scheme area and land within 250m of the scheme area boundary. Urban areas, predominantly located to the west of the junction were excluded from the field study area (see HE551511-WSP-EGN-M3J9PCF2-DR-LE-13362-6).
- 2.1.2 A Phase 1 habitat survey of the field study area was conducted following JNCC survey methods (JNCC, 2010)<sup>1</sup>. Phase 1 habitat survey is a standard technique for classifying and mapping British habitats where the dominant plant species are recorded and habitats are classified according to their vegetation types. All habitats present within the scheme area were mapped (HE551511-WSP-EGN-M3J9PCF2-DR-LE-13362-6), a description of each habitat type collected and an indicative botanical species list compiled (Appendix C).
- 2.1.3 The DAFOR scale was used to indicatively asses the relative abundance of plant species recorded within surveyed habitats, as follows:
- D: Dominant
  - A: Abundant
  - F: Frequent
  - O: Occasional
  - R: Rare
- 2.1.4 Additionally, the prefix 'L' was used where a species had a markedly local distribution within a habitat parcel.
- 2.1.5 Target notes were made to record information relating to features and habitats of note (where these are too small to map), and photographs were gathered for all main habitat types to provide a visual record of conditions (Appendix B).

### 2.2 DATES OF SURVEY AND PERSONNEL

- 2.2.1 Field surveys were undertaken during 2017. The majority of survey work was conducted on the 2nd and 3rd of March and 24th and 29th April 2017. Areas of land within the highways boundary (*i.e.* areas of land enclosed by highways fences) were surveyed on the 24th to 26th April and 8th to 11th April 2017. Additional survey visits were made during August 2017 when additional access to areas of land located between the M3 and A33 roads was obtained.
- 2.2.2 The surveys were led by an Associate member of the Chartered Institute of Ecology and Environmental Management with over six years' ecological consultancy experience. They have attained the Field Studies Council (FSC) Field Identification Skills Certificate (FISC) level 4 indicating a good level of botanical survey competency.

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<sup>1</sup> JNCC (Joint Nature Conservation Committee) (2010). Handbook for Phase I habitat survey: A Technique for Environmental Audit

## 2.3 NOTES AND LIMITATIONS

- 2.3.1 Some of the survey visits were undertaken outside of the optimal period for Phase 1 habitat survey (generally considered to be April-September inclusive). Although botanical surveys are seasonally limited, and throughout spring and summer certain species will be more or less evident (dependent upon flowering season), it is considered that sufficient information was gathered to enable robust categorisation of habitat types. Detailed botanical surveys have been undertaken in areas of potential botanical value and are detailed within a separate report (HE551511-WSP-GEN-M3J9PCF3-RP-LE-00006-P02).
- 2.3.2 Some of the survey work was undertaken at night under traffic management. Whilst this is not considered to have affected habitat classification, lower numbers of plant species were generally recorded in these areas and photographs of these habitat parcels have not been included.
- 2.3.3 Urban areas within the field study area, but outside of the scheme area, were not included within the Phase 1 habitat survey. As these areas are highly unlikely to support habitats of ecological interest and will not be directly affected by the scheme, this is not considered to be a significant limitation.

# 3. RESULTS

## 3.1 OVERVIEW

- 3.1.1 The field study area totals approximately 187ha. The M3 runs north-south with Junction 9 comprising Winnal Roundabout (located above the main carriageway) to the centre. The A34 dual carriageway heads north-west from the Junction with the A33 splitting off from the A34 in a northerly direction. The A272 'Spitfire Link' runs south-east from the junction.
- 3.1.2 To the east of the M3, the landscape is dominated by arable farmland, with associated hedgerows and small areas of woodland. The central area between the A34/A33 and M3 contains a variety of habitats, including grazed semi-improved pastures and several small woodlands of various types. The River Itchen is a chalk river that passes north-east to south-west through the north of the field study area and is characterised by a number of interconnected channels associated with historic water meadow management of the surrounding grasslands. The south-western part of the field study area is characterised by urban development, which includes industrial and commercial premises. Also of relevance to the habitats within the field study area is the route of a historic railway line which ran close to the A34 and is evidenced by cuttings and embankments.
- 3.1.3 All habitat types recorded are listed in Table 1, which includes the area of each habitat present within the field study area.
- 3.1.4 Summary descriptions of the ranges of habitat types present are provided below. Alpha-numeric codes (e.g. A1.1.1) used in this section cross-refer to the JNCC Phase 1 habitat survey classification (JNCC, 2010). The order of the habitat descriptions below reflects their ordering in the Phase 1 habitat survey manual and does not reflect habitat importance. A description of each habitat parcel together with photographs is provided within Appendix B. Species lists for each habitat parcel are provided within Appendix C. The distribution of habitats are shown on drawings HE551511-WSP-EGN-M3J9PCF2-DR-LE-13362-6, with Target Note descriptions in Table 2, below the habitat descriptions.

**Table 1 Summary of habitats present within field study area**

Habitat Type	Area (ha)	Length (km)
Semi-natural broadleaved woodland	11.88	N/A
Broadleaved plantation woodland	9.74	N/A
Semi-natural mixed woodland	0.99	N/A
Mixed plantation	5.24	N/A
Dense scrub	2.80	N/A
Scattered scrub	0.29	N/A
Parkland/Scattered Broadleaved Trees	0.62	N/A
Semi-Improved neutral grassland	0.28	N/A
Semi-improved calcareous grassland	11.05	N/A
Improved grassland	1.43	N/A
Marshy grassland	16.90	N/A
Species poor semi-improved grassland	2.04	N/A
Tall ruderal vegetation	0.59	N/A
Swamp	3.31	N/A
Marginal Vegetation	0.45	N/A

Habitat Type	Area (ha)	Length (km)
Standing water	0.24	N/A
Running Water	3.63	N/A
Arable	56.15	N/A
Amenity grassland	0.76	N/A
Introduced shrub	0.18	N/A
Buildings and hard standing	20.80	N/A
Bare ground	1.45	N/A
Species rich hedgerow	N/A	0.3
Species poor hedgerow	N/A	1.3
Species rich hedgerow with trees	N/A	0.9
Species poor hedgerow with trees	N/A	1.3
Not included (urban areas)	35.64	N/A
<b>Total</b>	<b>186.46</b>	<b>3.8</b>

### SEMI-NATURAL BROADLEAVED WOODLAND A1.1.1

- 3.1.5 There are eighteen parcels of semi-natural broadleaved woodland within the field study area. A number of wet willow *Salix* spp. and/or alder *Alnus glutinosa* dominated stands occur around the River Itchen, which tend to be relatively species-poor with ground flora dominated by aquatic emergent vegetation such as reed canary-grass *Phalaris arundinacea* and large sedges *Carex* spp. An area of hazel *Corylus avellana* coppice dominated woodland occurs close to the River Itchen (BW4 on HE551511-WSP-EGN-M3J9PCF2-DR-LE-13364), the structure of which indicates a long established woodland. Elsewhere, this habitat type tends to comprise secondary woodlands that appear to have developed naturally on embankments to the roads and the route of the old railway line. These stands are often dominated by sycamore *Acer pseudoplatanus* with mature, multi-stemmed trees indicative of historic clearance and regrowth.

### PLANTATION BROADLEAVED WOODLAND A1.1.2

- 3.1.6 This habitat type occurs frequently within the field study area and generally comprises roadside planting. The stands tend to be even-aged and immature (around 20-30 years old) and are densely planted with little ground flora or structural diversity present. The species composition tends to be relatively homogenous with field maple *Acer campestre*, dogwood *Cornus* spp. (including horticultural varieties) and hawthorn *Crataegus monogyna* amongst the more frequently recorded species. Exceptions include an area with mature lime *Tilia* sp. trees in the centre of the field study area (PBW4); an area with mature planted beech trees *Fagus sylvatica* that occur in the south-west of the field study area (PBW10) and an area with mature pollarded horse chestnut trees *Aesculus hippocastanum* in the west of the field study area (PBW24).

### SEMI-NATURAL MIXED WOODLAND A1.3.1

- 3.1.7 One parcel of habitat was mapped as semi-natural mixed woodland (MW1 on HE551511-WSP-EGN-M3J9PCF2-DR-LE-13362). It comprises an area of woodland on Easton Down in the centre of the field study area. The woodland is mainly located on a steep embankment. Coppiced hazel dominates with yew *Taxus baccata* locally dominant and few standard trees are present. The woodland is heavily shaded and ground flora was sparse at the time of the survey.

### PLANTATION MIXED WOODLAND A1.3.2

- 3.1.8 Six areas of mixed plantation woodland were mapped in the field study area. These include a range of stand types, including mature woodlands which include significant proportions of non-native conifer species (PMW1-3) and those largely comprising younger trees (PMW4-5). PMW6 is unusual in that it is dominated by semi-mature yew trees. In addition, an area of mixed plantation woodland occurs to the east of Junction 9 comprising young trees growing over species-poor semi-improved grassland in an area otherwise dominated by arable land (PMW/SI 1).

### DENSE SCRUB A2.1

- 3.1.9 Several parcels of dense scrub occur within the field study area, primarily comprising areas of shrubby vegetation lacking in semi-mature/ mature trees occurring close to the road. Prevalent species include bramble *Rubus fruticosus agg.* and dogwood. Exceptions include two areas within Easton Down to the centre of the field study area which occur on banksides and are dominated by hawthorn.

### SCATTERED SCRUB A2.2

- 3.1.10 Scattered scrub occurs frequently in association with less managed areas of roadside grassland, with prevalent species including bramble, ash *Fraxinus excelsior* saplings and hawthorn. In addition, two parcels have been mapped as scattered scrub. SS1 is located on the north-western verge of the M3 adjacent to a woodland and is dominated by ivy *Hedera helix* and bramble. SS2 is located on the south western verge of the M3 and represents vegetation developing on a steep embankment with very thin solids and prevalent bare chalk. A variety of vegetation is present including ivy, traveller's joy *Clematis vitalba*, blackthorn *Prunus spinosa* and ash saplings.

### PARKLAND/ SCATTERED BROADLEAVED TREES A3.1

- 3.1.11 Scattered broadleaved trees are prevalent across the north-west of the field study area, largely comprising willow *Salix spp.* trees growing in association with the wet ground. Elsewhere, a double row of mature beech trees growing over amenity grassland is present within a commercial car park in the central western part of the field study area.

### SEMI-IMPROVED NEUTRAL GRASSLAND B2.2

- 3.1.12 A section of road verge on the A33 road in the north of the field study area was classified as semi-improved neutral grassland. The grassland is damp and contains a moderate diversity of species including knapweed *Centaurea nigra*, common comfrey *Symphytum officinale* and bulbous buttercup *Ranunculus bulbosus*.

## SEMI-IMPROVED CALCAREOUS GRASSLAND B3.2

- 3.1.13 The verges of the M3 and southern parts of the A34 and grassland of the Junction 9 roundabout have been classified as semi-improved calcareous grassland. The widths of these parcels vary significantly with the larger tracts occurring on the northern part of the field study area where the M3 traverses a cutting. The swards typically include scattered scrub with other non-grassland species such as ivy and traveller's joy often prevalent. The most frequently recorded grasses in the relatively coarse swards were red fescue *Festuca rubra* and false brome *Brachypodium pinnatum*. A range of herbaceous species were recorded including those indicative of calcareous and/ or well-drained soils such as yellow-wort *Blackstonia perfoliata* and great mullein *Verbascum thapsus* alongside more ubiquitous grassland species.
- 3.1.14 In addition, two areas of pasture located between the M3 and A34 have been classified as this habitat type. These areas comprised cattle grazed grassland that is comparatively dry in nature. The diverse sward in these areas comprises a mixture of characteristic improved grassland species such as perennial rye-grass *Lolium perenne* and white clover *Trifolium repens* with colonisation by some species characteristic of more calcareous conditions including hoary ragwort *Jacobaea erucifolia* and traveller's joy.

## IMPROVED GRASSLAND B4

- 3.1.15 Two areas of improved grassland are located in the north-west of the field study area and comprise grazed pastures with short sward heights that are dominated by perennial rye-grass.

## MARSH/ MARSHY GRASSLAND B5

- 3.1.16 A significant area of floodplain grasslands occur in the west of the field study area in association with the River Itchen. These areas are structurally diverse habitats with varying amounts of tall wetland grasses and rushes *Juncus* spp. occurring amongst the generally herb-rich swards. Meadowsweet *Filipendula ulmaria* is prevalent throughout as are sedges *Carex* spp. Other characteristic species include marsh marigold *Caltha palustris* and yellow flag-iris *Iris psuedacorus*.
- 3.1.17 The Marshy grassland within the Winnal Moors Hampshire and Isle of Wight Wildlife Trust (HIWWT) nature reserve (MG6 to MG13 on HE551511-WSP-EGN-M3J9PCF2-DR-LE-13362) are understood to be managed as naturally flooding meadows, involving seasonal inundation and subsequent cutting and grazing throughout the year. These grasslands include a series of spring-fed flushes vegetated with common reed *Phragmites australis* and fen vegetation. Elsewhere, the marshy grasslands are thought to generally be managed by cattle grazing, though cutting for hay may also occur.

## SPECIES POOR SEMI-IMPROVED GRASSLAND B6

- 3.1.18 Species-poor semi-improved grasslands were mapped to the north-west and central areas of the field study area. These largely comprise grazed pastures typically dominated by Yorkshire fog *Holcus lanatus* alongside a low diversity of forbs. Also present is a fenced-off, unmanaged tract of grassland on Easton Down dominated by coarse grasses cock's foot *Dactylis glomerata* and false-oat grass *Arrhenatherum elatius* (SI3) and sections of road verges on the A34 where there was markedly low diversity of forbs.

### TALL RUDERAL VEGETATION C3.1

- 3.1.19 Three areas dominated by tall ruderal vegetation occur within the field study area. These include an area within an aggregates yard in the south-east of the field study area and two sections of the A34 road verge, where the habitat type occurs in mosaic with scattered scrub and scattered broadleaved trees. These areas are dominated by common nettle *Urtica dioica* alongside a range of ruderal species including cow parsley and bramble.

### SWAMP AND MARGINAL VEGETATION F1/F2.1

- 3.1.20 Several areas of marginal emergent vegetation, often dominated by common reed and sedge *Carex spp.* occur in the east of the field study area. These include areas to the margins of water bodies and those that occur in association with seasonally wet ditches and flushes.

### STANDING WATER G1

- 3.1.21 Standing water generally comprises ditches to the west of the field study area that appeared to have no significant flow. They are typically fringed with emergent vegetation with aquatic vegetation, particularly watercress *Nasturtium officinale*, frequent. Exceptions comprise: SW3 which is an artificial pond cut out from the main channel of the River Itchen; SW6 located adjacent to the A34 and thought to comprise an attenuation pond and SW5 and SW7 which are long linear ditches adjacent to the A34 and are also assumed to comprise attenuation drainage features for the road.

### RUNNING WATER G2

- 3.1.22 The River Itchen traverses the north of the field study area. The river has multiple, interconnected channels which are thought to be a result of historic use for water meadow management. The main channels tend to be relatively fast flowing with clear water and gravel substrates. Marginal and aquatic vegetation are prevalent throughout.

### ARABLE J1.1

- 3.1.23 Arable land dominates the land east of the M3 carriageway. A grassy field margin that ranges between approximately 1-3m is present along much of the western boundary of the land adjacent to the M3.

### AMENITY GRASSLAND J1.2

- 3.1.24 Three small parcels of amenity grassland occur within the field study area. These comprise heavily managed grasslands that are close to developed areas.

### INTRODUCED SHRUB J1.4

- 3.1.25 Two areas of introduced shrub were mapped within the field study area. These comprise ornamental landscaping adjacent to commercial premises and a stand of Wilson's honeysuckle *Lonicera nitida* occurring on the western verge of the M3.

### HEDGEROWS J2

- 3.1.26 Twenty-two hedgerows were mapped within the field study area, predominantly occurring in association with the arable land and pastures that occur to the east and west of the M3 north of Junction 9. Eight of the hedgerows were classified as species-rich with >5 woody species recorded. Blackthorn, dogwood, hawthorn and privet *Ligustrum vulgare* were the most frequently recorded species.

## BARE GROUND J4

3.1.27 Two significant areas of bare ground are located within the field study area. A yard used for storing and processing aggregates occurs immediately south-east of Junction 9 and an area of bare ground was found to the south of standing water SW3 indicative of recent earth works in the area.

### 3.2 TARGET NOTES

3.2.1 Target Notes detailed within Table 2 correspond to notable features identified within the field study area.

**Table 2 Target Notes**

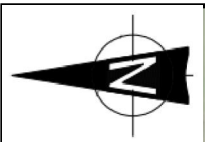
Target notes	
<b>TN1</b>	Area of mature sycamore trees.
<b>TN2</b>	Abundant rabbit burrows.
<b>TN3</b>	2m wide grassy margin to arable field.
<b>TN4</b>	Narrow grassy margins adjacent to the carriageway approximately 1-2m wide. Not directly accessed. Species typical of poor semi-improved grassland.
<b>TN5</b>	Badger sett with at least five active entrances on an embankment within dense scrub.
<b>TN6</b>	Badger sett with single active entrance.
<b>TN7</b>	Series of mammal burrows of sufficient size to be used by badgers.
<b>TN8</b>	Two small stems of Japanese knotweed on top of the embankment.
<b>TN9</b>	Series of flushes thought to drain spring water. Varied vegetation includes abundant sedges and bryophytes.
<b>TN10</b>	Drainage tunnel under railway cutting around 1.5m high.
<b>TN11</b>	Disused mammal burrow of sufficient size to be used by badger on occasion.





# Appendix A

**DRAWINGS**

100  
Metres  
0  
DO NOT SCALE



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-  field study area
-  scheme area

Rev.	Date	Description	By	Chk'd	App'd

Drawing Status  
**SUITABLE FOR REVIEW & COMMENT**

Stability  
**S3**

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Mountbatten House, Basing View, Basingstoke  
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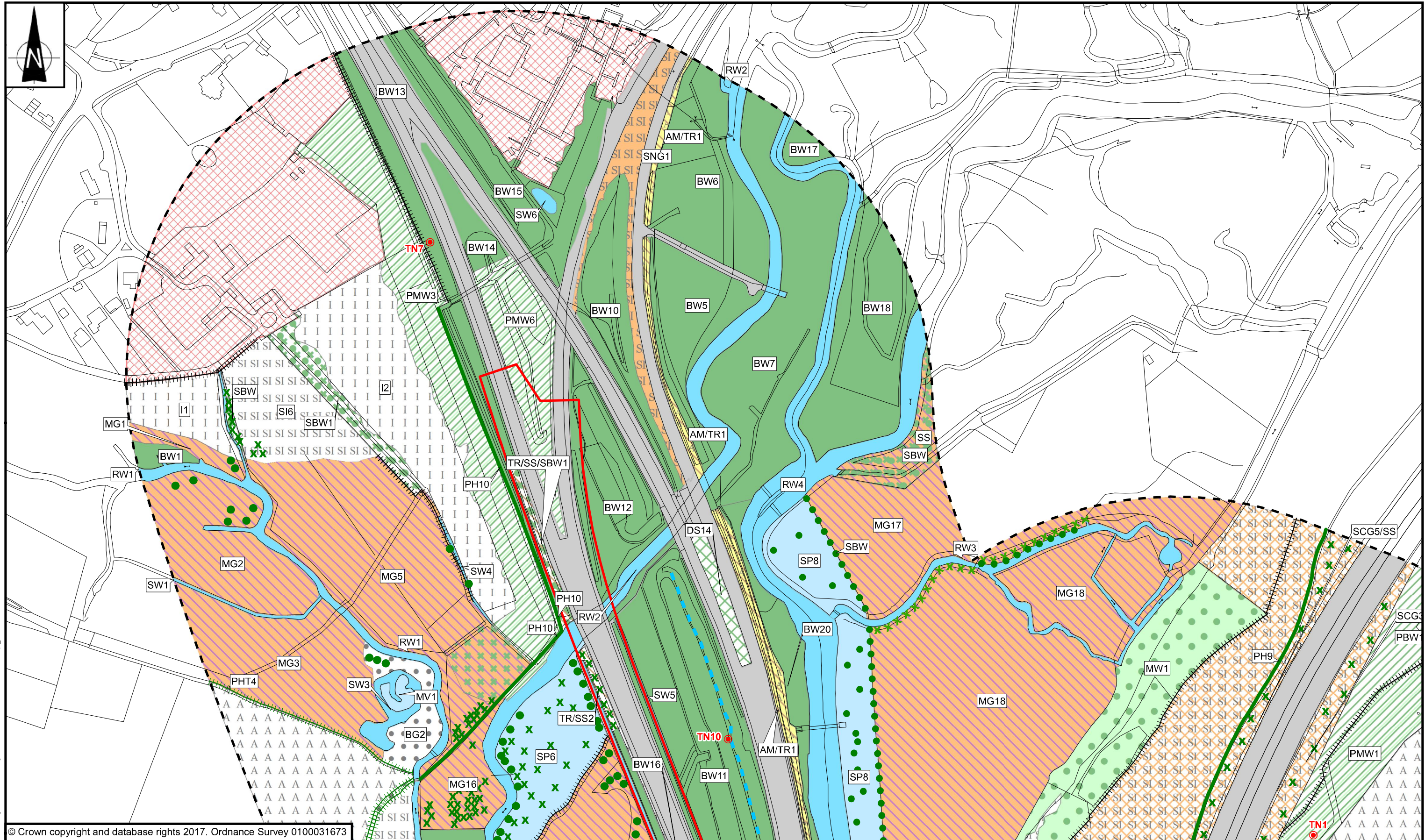
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Working on behalf of  
**highways  
england**

Project Title <b>REGIONAL INVESTMENT PROGRAMME M3 JUNCTION 9</b>				
Drawing Title <b>HABITAT SURVEY AREA</b>				
Scale 1:7,000	Drawn JSdS	Checked LR	Approved HS	Authorised MM
Original Size A3	Date JULY 2017	Date JULY 2017	Date JULY 2017	Date Mar 2018
Drawing Number HE551511	Originator WSP	Volume EGN	Project Ref. No. 70015218	
Project M3J9PCF2	DR LE	13361	Revision P01.1	
Location	Type	Role	Number	

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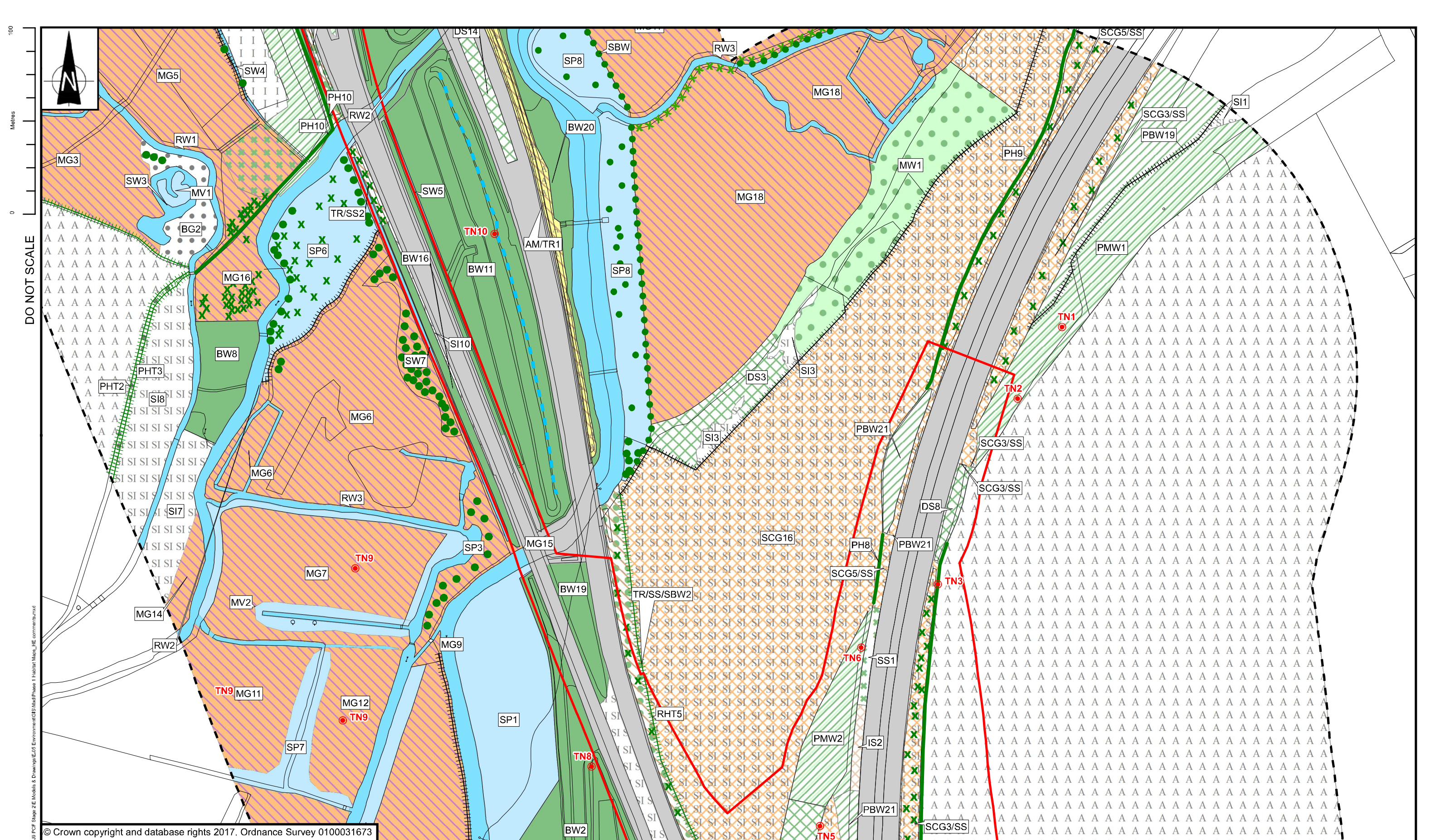
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Path: \\uk.wspgroup.com\central\_data\Projects\70015\wsp\700152-18-M3J9\_PCF\_Stage\_2E\_Models\_&\_Drawings\ECIS\_Environment\GIS\MapPhase\_1\_Habitat\_Map\_1HE\_comments.mxd



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250m field study area	Hard standing	Improved grassland	Poor semi-improved grassland
Target Note	Bare ground	Introduced shrub	Running water
Dry ditch	Broadleaved Parkland/scattered trees	Marginal and inundation - marginal vegetation	Scrub - dense/continuous
Fence	Broadleaved woodland - plantation	Marsh/marshy grassland	Scrub - scattered
Hedge with trees - species-poor	Broadleaved woodland - semi-natural	Mixed woodland - plantation	Standing water
Intact hedge - species-poor	Calcareous grassland - semi-improved	Mixed woodland - semi-natural	Swamp
Cultivated/disturbed land - amenity grassland	Cultivated/disturbed land - arable	Not accessed land	
		Other tall herb and fern - ruderal	

Drawing Status <b>SUITABLE FOR REVIEW &amp; COMMENT</b>	Suitability <b>S3</b>	Project Title <b>REGIONAL INVESTMENT PROGRAMME M3 JUNCTION 9</b>
 Mountbatten House, Basing View, Basingstoke Hampshire, RG21 4HJ Tel: +44 (0)1256 316000 www.wsp.com		
 Working on behalf of <b>highways england</b>		
Drawing Title <b>PHASE 1 HABITAT MAP - SHEET 1 OF 5</b>	Scale 1:2,500	Drawn JSdS
Original Size A3	Date JULY 2017	Checked LR
Drawing Number HE551511	Date JULY 2017	Approved HS
Project M3J9PCF2	Date JULY 2017	Authorised MM
Location M3J9PCF2	Originator WSP	Volume EGN
	DR	13362
	Type Role Number	Project Ref. No. 70015218
		Revision P01.1



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250m field study area	Hard standing	Improved grassland	Poor semi-improved grassland
Target Note	Bare ground	Introduced shrub	Running water
Dry ditch	Broadleaved Parkland/scattered trees	Marginal and inundation - marginal vegetation	Scrub - dense/continuous
Fence	Broadleaved woodland - plantation	Marsh/marshy grassland	Scrub - scattered
Hedge with trees - species-poor	Broadleaved woodland - semi-natural	Mixed woodland - plantation	Standing water
Intact hedge - species-poor	Calcareous grassland - semi-improved	Mixed woodland - semi-natural	Swamp
	Cultivated/disturbed land - amenity grassland	Not accessed land	
	Cultivated/disturbed land - arable	Other tall herb and fern - ruderal	

Drawing Status: SUITABLE FOR REVIEW & COMMENT  
 Suitability: S3

Project Title: REGIONAL INVESTMENT PROGRAMME  
 M3 JUNCTION 9

Drawing Title: PHASE 1 HABITAT MAP - SHEET 2 OF 5

**wsp**  
 Mountbatten House, Basing View, Basingstoke  
 Hampshire, RG21 4HJ  
 Tel: +44 (0)1256 318000  
 www.wsp.com

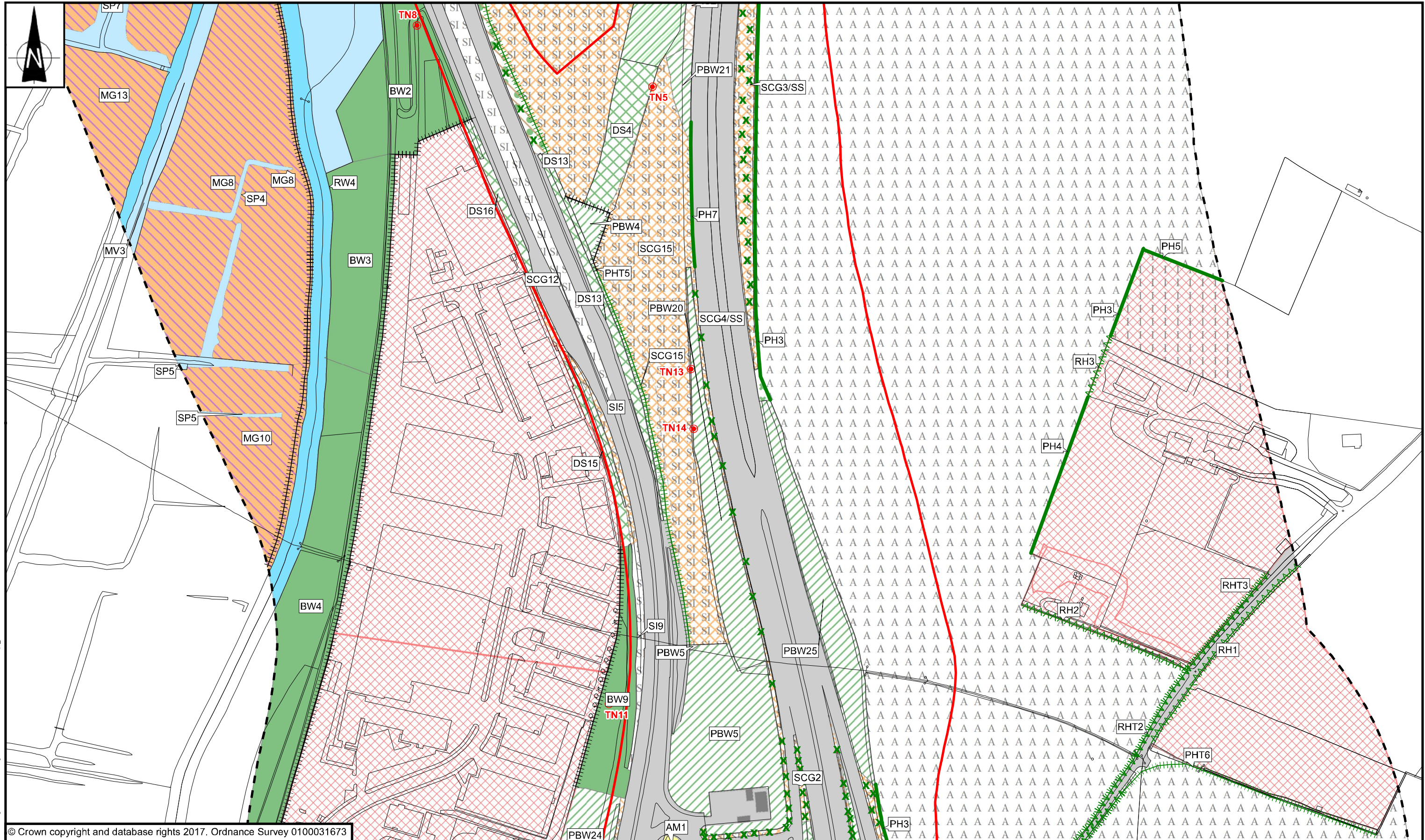
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Working on behalf of  
**highways england**

Drawing Number	HE551511	Originator	WSP	Volume	EGN	Project Ref. No.	70015218
Project	M3J9PCF2	DR	LE	13363		Revision	P01.1
Location		Type	Role	Number			

Rev.	Date	Description	By	Ch'd	App'd

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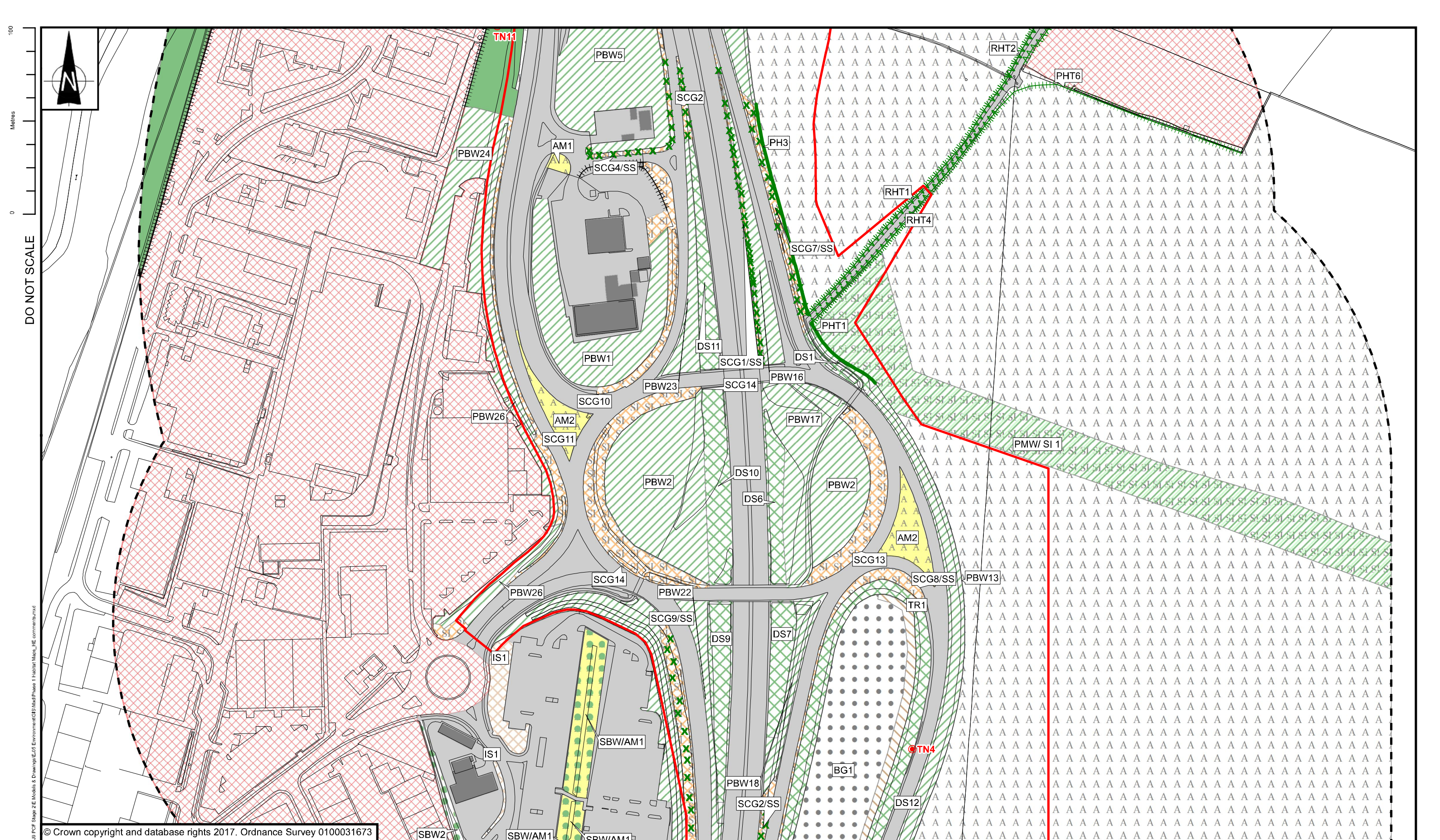


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250m field study area	Fence	Hard standing	Cultivated/disturbed land - arable	Other tall herb and fern - ruderal
Target Note	Hedge with trees - native species-rich	Broadleaved Parkland/scattered trees	Improved grassland	Poor semi-improved grassland
	Hedge with trees - species-poor	Broadleaved woodland - plantation	Introduced shrub	Running water
	Intact hedge - native species-rich	Broadleaved woodland - semi-natural	Marginal and inundation - marginal vegetation	Scrub - dense/continuous
	Intact hedge - species-poor	Buildings	Marsh/marshy grassland	Scrub - scattered
		Calcareous grassland - semi-improved	Mixed woodland - plantation	Swamp
		Cultivated/disturbed land - amenity grassland	Not accessed land	

Drawing Status <b>SUITABLE FOR REVIEW &amp; COMMENT</b>	Suitability <b>S3</b>	Project Title <b>REGIONAL INVESTMENT PROGRAMME M3 JUNCTION 9</b>
<p>Mountbatten House, Basing View, Basingstoke Hampshire, RG21 4HJ Tel: +44 (0)1256 318000 wsp.com</p>		
Drawing Title <b>PHASE 1 HABITAT MAP - SHEET 3 OF 5</b>		
Scale 1:2,500	Drawn JSdS	Checked LR
Original Size A3	Date JULY 2017	Date JULY 2017
Drawing Number HE551511	Originator WSP	Volume EGN
Project M3J9PCF2	DR LE	13364
Location	Type  Role	Number  Number
Rev. Date Description By Chk'd App'd	Project Ref. No. 70015218	Date MAR 2018
	Revision P01.1	

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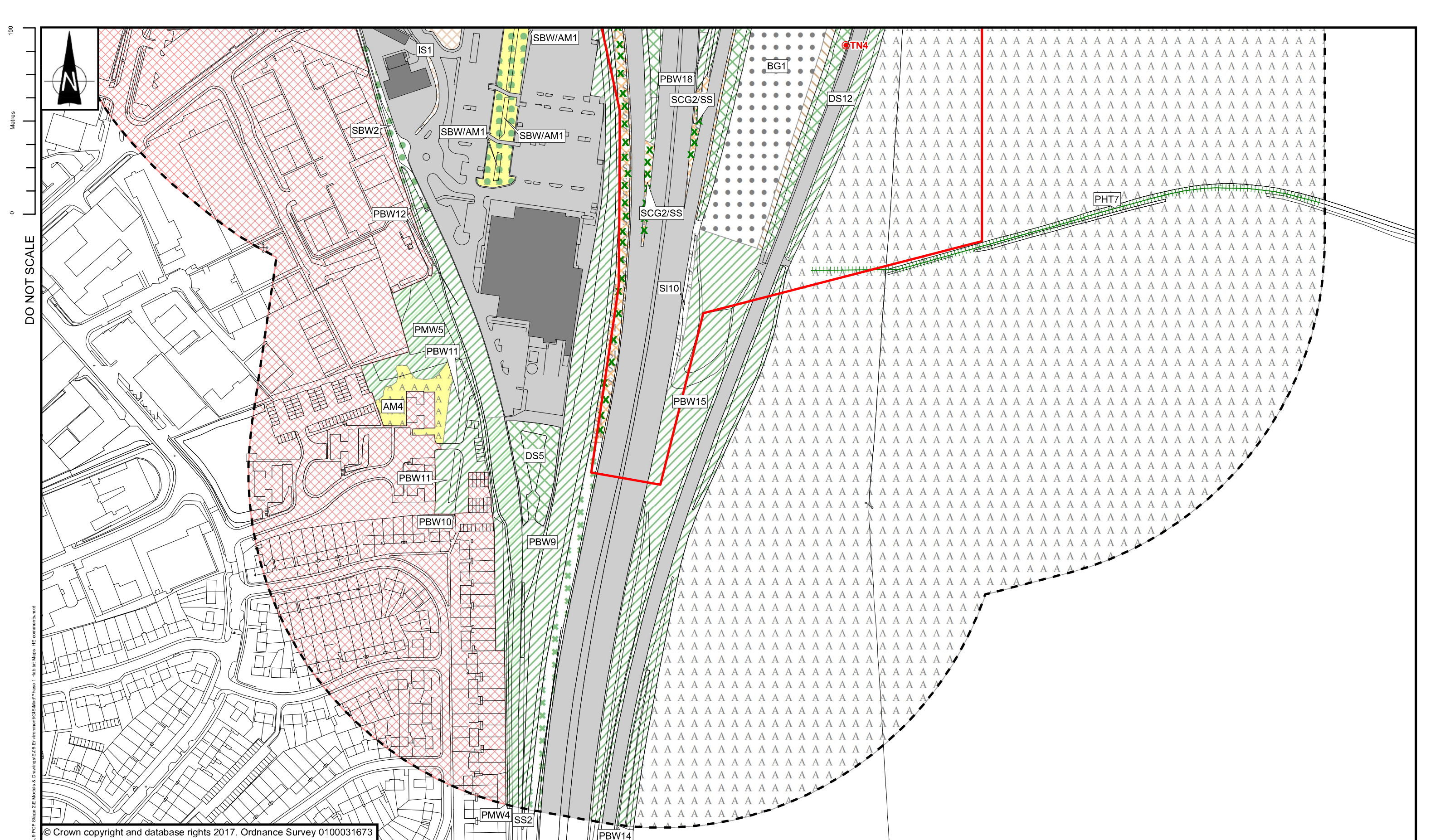
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250m field study area	Fence	Hard standing	Buildings	Mixed woodland - plantation
Target Note	Hedge with trees - native species-rich	Bare ground	Calcareous grassland - semi-improved	Not accessed land
	Hedge with trees - species-poor	Broadleaved Parkland/scattered trees	Cultivated/disturbed land - amenity grassland	Other tall herb and fern - ruderal
	Intact hedge - native species-rich	Broadleaved woodland - plantation	Cultivated/disturbed land - arable	Poor semi-improved grassland
	Intact hedge - species-poor	Broadleaved woodland - semi-natural	Introduced shrub	Scrub - dense/continuous

Drawing Status <b>SUITABLE FOR REVIEW &amp; COMMENT</b>	Suitability <b>S3</b>	Project Title <b>REGIONAL INVESTMENT PROGRAMME M3 JUNCTION 9</b>																								
 Mountbatten House, Basing View, Basingstoke Hampshire, RG21 4HJ Tel: +44 (0)1256 318000 www.wsp.com		Drawing Title <b>PHASE 1 HABITAT MAP - SHEET 4 OF 5</b>																								
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Scale	1:2,500	Drawn	JSdS	Checked	LR	Approved	HS	Authorised	MM																	
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 Working on behalf of <b>highways england</b>		<table border="1"> <tr> <td>Drawing Number</td> <td>HE551511</td> <td>Originator</td> <td>WSP</td> <td>Volume</td> <td>EGN</td> <td>Project Ref. No.</td> <td>70015218</td> </tr> <tr> <td>Project</td> <td>M3J9PCF2</td> <td>DR</td> <td>LE</td> <td>13365</td> <td></td> <td>Revision</td> <td></td> </tr> <tr> <td>Location</td> <td></td> <td>Type</td> <td>Role</td> <td>Number</td> <td></td> <td></td> <td>P01.1</td> </tr> </table>	Drawing Number	HE551511	Originator	WSP	Volume	EGN	Project Ref. No.	70015218	Project	M3J9PCF2	DR	LE	13365		Revision		Location		Type	Role	Number			P01.1
Drawing Number	HE551511	Originator	WSP	Volume	EGN	Project Ref. No.	70015218																			
Project	M3J9PCF2	DR	LE	13365		Revision																				
Location		Type	Role	Number			P01.1																			



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250m field study area	Hedge with trees - species-poor	Hard standing	Calcareous grassland - semi-improved	Not accessed land
Target Note	Bare ground	Broadleaved Parkland/scattered trees	Cultivated/disturbed land - amenity grassland	Other tall herb and fern - ruderal
Broadleaved woodland - plantation	Buildings	Cultivated/disturbed land - arable	Introduced shrub	Poor semi-improved grassland
		Mixed woodland - plantation	Scrub - dense/continuous	Scrub - scattered

Drawing Status <b>SUITABLE FOR REVIEW &amp; COMMENT</b>		Suitability <b>S3</b>		Project Title <b>REGIONAL INVESTMENT PROGRAMME M3 JUNCTION 9</b>	
Drawing Title <b>PHASE 1 HABITAT MAP - SHEET 5 OF 5</b>					
Scale 1:2,500	Drawn JSdS	Checked LR	Approved HS	Authorised MM	
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Drawing Number HE551511	Originator WSP	Volume EGN	Project Ref. No. 70015218		
Project M3J9PCF2	DR	LE	13366	Revision P01.1	
Location	Type	Rate	Number		







Rev.	Date	Description	By	Chk'd	App'd



# Appendix B



**DETAILED RESULTS**







Habitat type	Parcel Code	Photograph number	Notes
Semi-natural broadleaved woodland	BW1		Small area of willow trees growing over marshy grassland dominated by tall grasses and sedges.
Semi-natural broadleaved woodland	BW2		Secondary woodland developed over remnant of old railway line cutting. Some planted trees present including a line of mature alder. Varied structure though not very old trees present. Fallen and felled logs present.


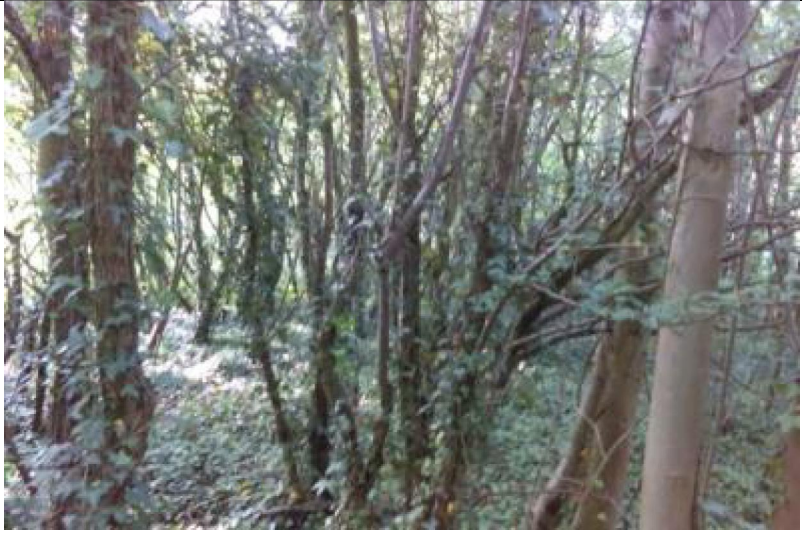
Habitat type	Parcel Code	Photograph number	Notes
Semi-natural broadleaved woodland	BW3		Area of woodland with much hazel coppice and occasional standard trees adjacent to the River Itchen.
Semi-natural broadleaved woodland	BW4		Wet woodland largely dominated by willow trees with abundant dead wood present. Trees not very mature.

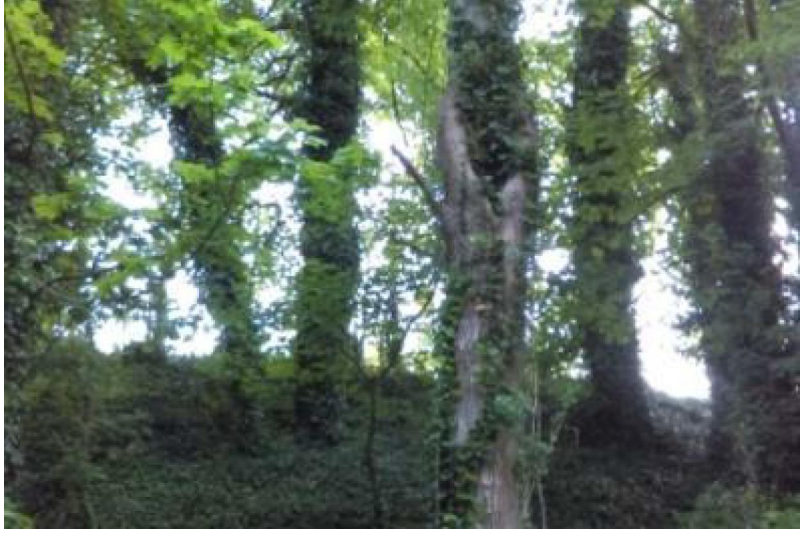
Habitat type	Parcel Code	Photograph number	Notes
Semi-natural broadleaved woodland	BW5		Wet woodland comprising mature standard trees that appear uniform in age. Some derelict coppice is present. Dense field layer and sparse understorey.
Semi-natural broadleaved woodland	BW6		Woodland that is drier than much of the surrounding woodland, which includes some of the defunct railway cutting present elsewhere within the field study area. Structurally diverse including some large mature poplar trees and a band of alder trees adjacent to the road. Dense ground field layer and moderate understorey.

Habitat type	Parcel Code	Photograph number	Notes
Semi-natural broadleaved woodland	BW7		<p>Mature even-aged trees. Wet woodland with high cover in the field layer and occasional cover in the shrub layer. Younger trees present to the north of the parcel possibly indicating recent clearance.</p>
Semi-natural broadleaved woodland	BW8		<p>Wet woodland traversed by small streams. Mature trees to approximately 15m. Dense canopy and understory cover with mixed ages of trees. Ground cover dense also.</p>



Habitat type	Parcel Code	Photograph number	Notes
Semi-natural broadleaved woodland	BW9		Thought to be a secondary woodland part of which has developed on an old railway cutting. Mature trees infrequent, relatively diverse range of species with occasionally high cover in ground layers.
Semi-natural broadleaved woodland	BW10		Secondary woodland with mature trees, many of which are multi-stemmed.



Habitat type	Parcel Code	Photograph number	Notes
Semi-natural broadleaved woodland	BW11		<p>Dense secondary woodland. Drainage feature is present to the west of the woodland which is wet in character and dominated by alder and willow species. A significant defunct railway cutting is present to the east of the parcel, which is drier in character and dominated by sycamore.</p>
Semi-natural broadleaved woodland	BW12		<p>Dense secondary woodland with mature trees, many of which are multi-stemmed. Significant tracts are dominated by invasive shrubs snowberry and Wilson's honeysuckle. Old railway cutting traverses habitat parcel.</p>



Habitat type	Parcel Code	Photograph number	Notes
<b>Semi-natural broadleaved woodland</b>	BW13		<p>On steep embankment below A34. Diverse age range with trees up to approximately 75cm diameter at breast height (dbh), but mainly less. Some recent planting of yew trees.</p>
<b>Semi-natural broadleaved woodland</b>	BW14		<p>Small parcel of woodland close to the A34 road comprising young self-sown trees with dbh of approximately 10-25cm.</p>

Habitat type	Parcel Code	Photograph number	Notes
<b>Semi-natural broadleaved woodland</b>	BW15		Woodland on steep embankment adjacent to A34 which was not fully accessed. Some large mature specimens present.
<b>Semi-natural broadleaved woodland</b>	BW16	N/A	Roadside woodland including some mature specimens.
<b>Semi-natural broadleaved woodland</b>	BW17	As BW7	
<b>Semi-natural broadleaved woodland</b>	BW18	As BW7	





Habitat type	Parcel Code	Photograph number	Notes
Semi-natural broadleaved woodland	BW19		Small, structurally diverse parcel to centre of the road. No particularly mature specimens present.
Semi-natural broadleaved woodland	BW20		A row of mature poplar trees alongside the A34 road over a mixed shrub layer including hazel, sycamore and cherry laurel.


Habitat type	Parcel Code	Photograph number	Notes
<b>Plantation broadleaved woodland</b>	PBW1		Roadside woodland estimated to be around 20 years old. Dense, even-aged stand on embankment.
<b>Plantation broadleaved woodland</b>	PBW2		Open, even-aged woodland within Winnal Roundabout with much horticultural dogwood.



Habitat type	Parcel Code	Photograph number	Notes
<b>Plantation broadleaved woodland</b>	PBW4		Small area of woodland largely formed of immature specimens but with some large mature lime trees.
<b>Plantation broadleaved woodland</b>	PBW5		Planted woodland estimated to be 20-30 years old with coppiced hazel dominant.

Habitat type	Parcel Code	Photograph number	Notes
<b>Plantation broadleaved woodland</b>	PBW9		Surveyed from edge. Band of plantation woodland between Tesco and road side. Trees appear immature.
<b>Plantation broadleaved woodland</b>	PBW10		Rows of mature beech trees



Habitat type	Parcel Code	Photograph number	Notes
<b>Plantation broadleaved woodland</b>	PBW11	N/A	Rows of mature beech trees
<b>Plantation broadleaved woodland</b>	PBW12		Plantation comprising generally young trees on embankment in built up area



Habitat type	Parcel Code	Photograph number	Notes
<b>Plantation broadleaved woodland</b>	PBW13	 <p>A photograph showing a dense thicket of green bushes and trees along the edge of a road. The road is visible on the left side of the frame, with several cars parked or moving. The vegetation is lush and appears to be a young plantation.</p>	Plantation woodland between road and field. Not directly accessed. Trees semi-mature.
<b>Plantation broadleaved woodland</b>	PBW14	 <p>A photograph showing a dense thicket of green bushes and trees along the edge of a road. The road is visible on the right side of the frame, with a white line marking. The vegetation is lush and appears to be a young plantation.</p>	Plantation woodland between road and field. Not directly accessed. Trees semi-mature.



Habitat type	Parcel Code	Photograph number	Notes
<b>Plantation broadleaved woodland</b>	PBW15		Immature trees densely planted, up to approximately 40cm dbh.
<b>Plantation broadleaved woodland</b>	PBW16		Open plantation woodland where lower branches have recently been cleared, thought to be for road safety purposes. Trees with approximately 30 cm dbh.


Habitat type	Parcel Code	Photograph number	Notes
<b>Plantation broadleaved woodland</b>	PBW17		Open plantation woodland where lower branches have recently been cleared, thought to be for road safety purposes. Trees with approximately 30 cm dbh.
<b>Plantation broadleaved woodland</b>	PBW18		Dense area of young plantation woodland on embankment.







Habitat type	Parcel Code	Photograph number	Notes
<b>Plantation broadleaved woodland</b>	PBW19		<p>Trees growing atop embankment adjacent to M3 and are largely immature. Densely spaced with little ground flora. Trees dbh of approximately 30cm.</p>
<b>Plantation broadleaved woodland</b>	PBW20		<p>Young plantation woodland on steep embankment. Trees approximately 20cm dbh. Approximately 3m margin adjacent to carriageway with no trees but dominated by ivy.</p>


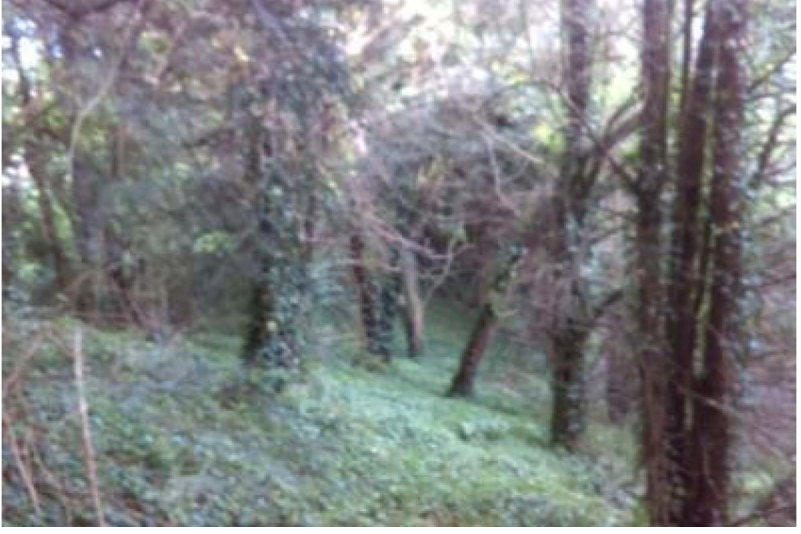
Habitat type	Parcel Code	Photograph number	Notes
<b>Plantation broadleaved woodland</b>	PBW21		Plantation woodland with semi-mature trees up to around 50cm dbh. Diverse age range of trees.
<b>Plantation broadleaved woodland</b>	PBW22		Open plantation woodland were lower branches have recently been cleared, thought to be for road safety purposes. Trees with approximately 30 cm dbh.



Habitat type	Parcel Code	Photograph number	Notes
<b>Plantation broadleaved woodland</b>	PBW23		Small area of young plantation adjacent to the slip road. Trees approximately 10cm dbh.
<b>Plantation broadleaved woodland</b>	PBW24		Mature horse chestnut trees with approximately 150cm dbh. Sparse shrub and ground layers.

Habitat type	Parcel Code	Photograph number	Notes
<b>Plantation broadleaved woodland</b>	PBW25	N/A	Not accessed (night time survey visit, parcel has steep embankments and fences), but appears similar to other roadside plantation woodlands.
<b>Plantation broadleaved woodland</b>	PBW26	N/A	Young plantation woodland adjacent to Winnal roundabout.
<b>Semi-natural mixed woodland</b>	MW1		Woodland on steep embankment which was not fully accessed. Largely comprises old coppiced hazel with yew abundant. Few standard trees.



Habitat type	Parcel Code	Photograph number	Notes
<b>Mixed plantation woodland</b>	PMW1		Mature woodland. Conifer trees form outer boundaries with mixed age planted broadleaved trees centrally. Abundant dead wood present.
<b>Mixed plantation woodland</b>	PMW2		Mature plantation woodland with dense canopy layer and sparse shrub and ground layer cover.

Habitat type	Parcel Code	Photograph number	Notes
Mixed plantation woodland	PMW3		Rows of mature planted trees of varying ages. Structurally diverse.
Mixed plantation woodland	PMW4		Mixed-age plantation on embankment with trees up to around 40-50cm dbh.

Habitat type	Parcel Code	Photograph number	Notes
<b>Mixed plantation woodland</b>	PMW5		Mature conifer trees over elder understory.
<b>Mixed plantation woodland</b>	PMW6		Multi-stemmed trees (mainly yew) planted in rows on embankment. Heavily shaded with little ground flora.



Habitat type	Parcel Code	Photograph number	Notes
<p><b>Mixed plantation woodland with species poor semi-improved grassland</b></p>	<p>PMW/SI1</p>		<p>Planted trees around ten years old over a coarse grassland sward.</p>
<p><b>Dense scrub</b></p>	<p>DS1</p>		<p>Small area of scrub dominated by dogwood adjacent to Winnal roundabout.</p>






Habitat type	Parcel Code	Photograph number	Notes
Dense scrub	DS3		Occurring in mosaic with grassland on fenced off embankment.
Dense scrub	DS4		Area of scrub on embankment with significant cattle damage.


Habitat type	Parcel Code	Photograph number	Notes
Dense scrub	DS5		Depression in ground vegetated with dense scrub, possibly some wet areas. Not directly accessed.


Habitat type	Parcel Code	Photograph number	Notes
Dense scrub	DS6		Trees are absent from the vegetation closest to the road, with a dense scrub present around 1.5m high.

Habitat type	Parcel Code	Photograph number	Notes
Dense scrub	DS7		Trees are absent from the vegetation closest to the road, with a dense scrub present around 1.5m high.
Dense scrub	DS8		Area of dense bramble scrub on embankment.


Habitat type	Parcel Code	Photograph number	Notes
Dense scrub	DS9		Area of dense bramble scrub on embankment adjacent to slip road.
Dense scrub	DS10		Dense dogwood scrub under roundabout



Habitat type	Parcel Code	Photograph number	Notes
Dense scrub	DS11	N/A	Dense dogwood scrub under roundabout and adjacent slip road
Dense scrub	DS12		Scrub on very steep embankment with bare chalk visible. Not directly accessed.
Dense Scrub	DS13	N/A	Scrub on embankment adjacent to A34. Relatively diverse in structure.


Habitat type	Parcel Code	Photograph number	Notes
<b>Dense scrub</b>	DS14		Saplings and shrubs growing on thin strip of verge. Grassy edge to habitat parcel.
<b>Dense scrub</b>	DS15	N/A	Roadside scrub lacking trees
<b>Dense scrub</b>	DS16	N/A	Roadside scrub lacking trees



Habitat type	Parcel Code	Photograph number	Notes
Scattered scrub	SS1		Ivy dominated section of verge adjacent to coniferous woodland.
Scattered scrub	SS2	N/A	Steep embankment not accessed for health and safety reasons. Likely thin soils, ivy dominant alongside saplings and shrubs.





Habitat type	Parcel Code	Photograph number	Notes
<p><b>Scattered broadleaved woodland</b></p>	<p>SBW1</p>		<p>Likely to be a defunct hedge, comprising mature willow trees over bramble scrub.</p>
<p><b>Scattered broadleaved woodland</b></p>	<p>SBW2</p>		<p>Double row of beech trees adjacent to hard standing pathway.</p>



Habitat type	Parcel Code	Photograph number	Notes
<p><b>Scattered broadleaved woodland with amenity grassland</b></p>	<p>SBW/AM1</p>		<p>Double row of mature beech trees over amenity grassland within Tesco's car park.</p>
<p><b>Semi-improved neutral grassland</b></p>	<p>SNG1</p>		<p>Damp road verge grassland with reasonable diversity of herbaceous vegetation. Sward approximately 35cm being mown at time of survey.</p>



Habitat type	Parcel Code	Photograph number	Notes
<b>Semi-improved calcareous grassland</b>	SCG1/SS		Strip of grassland 1-4m wide adjacent to the M3. Disturbed ground including bare patches and wood chip present. Occurs with scattered shrub.
<b>Semi-improved calcareous grassland</b>	SCG2/SS	As above	Strip of grassland 1-4m wide adjacent to the M3. Disturbed ground including bare patches and wood chip present. Occurs with scattered shrub.

Habitat type	Parcel Code	Photograph number	Notes
<p><b>Semi-improved calcareous grassland</b></p>	<p>SCG3/SS</p>		<p>Grassland on the eastern side of M3 north of Junction 9. Includes steep embankment/ cutting further north. Grassland occurs in mosaic with scattered scrub. Bryophytes prominent in sward that is relatively herb-rich in places.</p>
<p><b>Semi-improved calcareous grassland</b></p>	<p>SCG4/SS</p>		<p>Narrow strip of grassland on road verge between approximately 1m and 3m wide.</p>



Habitat type	Parcel Code	Photograph number	Notes
<b>Semi-improved calcareous grassland</b>	SCG5/SS		Grassland on western side of M3. Ivy is prevalent within the sward, which also contains a good diversity of forbs. Scattered scrub is frequent.
<b>Semi-improved calcareous grassland</b>	SCG7/SS	N/A	2-3m wide strip of grassland adjacent to slip road. Scrub, ivy, bryophytes and bare ground frequent in sward.
<b>Semi-improved calcareous grassland</b>	SCG8/SS	N/A	2-3m wide strip of grassland adjacent to slip road. Scrub and, ivy, bryophytes and bare ground frequent in sward.
<b>Semi-improved calcareous grassland</b>	SCG9/SS	N/A	Embankment vegetated with grassland sward that is around 50cm high with scrub encroaching.
<b>Semi-improved calcareous grassland</b>	SCG10/SS	N/A	Herb-rich, closely mown, grassland with exposed bare chalk present.
<b>Semi-improved calcareous grassland</b>	SCG11	N/A	Approximate 2m wide margin, relatively coarse and herb-rich sward.

Habitat type	Parcel Code	Photograph number	Notes
<b>Semi-improved calcareous grassland</b>	SCG12	N/A	Relatively coarse grass margin to the road. Includes lorry pull in which is covered with grass.
<b>Semi-improved calcareous grassland</b>	SCG13		Rough grassland present to the peripheries of Winnal roundabout. Relatively diverse assemblage of species present.
<b>Semi-improved calcareous grassland</b>	SCG14	As SCG13	



Habitat type	Parcel Code	Photograph number	Notes
<p><b>Semi-improved calcareous grassland</b></p>	<p>SG15</p>		<p>Cattle grazed pasture, habitat classification borderline with improved grassland. Area of wet ground present to southern end of parcel.</p>
<p><b>Semi-improved calcareous grassland</b></p>	<p>SCG16</p>		<p>Cattle grazed pasture, habitat classification borderline with improved grassland.</p>

Habitat type	Parcel Code	Photograph number	Notes
<b>Improved grassland</b>	11		Sheep grazed pasture with tight sward of approximately 10cm.
<b>Improved grassland</b>	12		Improved pasture field.






Habitat type	Parcel Code	Photograph number	Notes
Marshy grassland	MG1		Area of wet ground dominated by large sedges and grasses. Much litter from annual vegetation.
Marshy grassland	MG2		Wet pasture with coarse sward that includes abundant rushes.



Habitat type	Parcel Code	Photograph number	Notes
Marshy grassland	MG3		Wet pasture with coarse sward that includes abundant rushes.
Marshy grassland	MG5		Area of wet ground with large sedges and grasses dominant. Abundant leaf litter on the ground. Occasional scattered willow scrub present.



Habitat type	Parcel Code	Photograph number	Notes
Marshy grassland	MG6		Tussocky grassland with sward of around 20-30cm. High cover of wetland species including reed, sedges and rushes.
Marshy grassland	MG7		Grassland with sward around 10cm. Forb-rich and bordered by reeds.

Habitat type	Parcel Code	Photograph number	Notes
Marshy grassland	MG8		Grassland with sward around 10cm. Forb-rich and bordered by reeds. Frequent tussocks of rushes.
Marshy grassland	MG9		Mown pathway for fishermen along the embankment of River Itchen.



Habitat type	Parcel Code	Photograph number	Notes
<b>Marshy grassland</b>	MG10		Grassland with sward around 10cm. Forb-rich and bordered by reeds. Frequent tussocks of rushes.
<b>Marshy grassland</b>	MG11	AS MG7	As MG 7
<b>Marshy grassland</b>	MG12	AS MG7	As MG 7
<b>Marshy grassland</b>	MG13	AS MG7	As MG 7



Habitat type	Parcel Code	Photograph number	Notes
Marshy grassland	MG14		Damp area of wider pasture close to river
Marshy grassland	MG15		Area of rough grassland between main channel of Itchen and a tributary. Large trees present.


Habitat type	Parcel Code	Photograph number	Notes
Marshy grassland	MG16		Apparently unmanaged tract of land adjacent to running watercourse. Scrub encroachment.
Marshy grassland	MG17		Cattle grazed wet pasture that is likely to seasonally flood. Mosaic of closely grazed grassland alongside areas dominated by taller vegetation characteristic of wet conditions including flag iris, meadowsweet and rushes.



Habitat type	Parcel Code	Photograph number	Notes
<b>Marshy grassland</b>	MG18		Cattle grazed wet pasture that is likely to seasonally flood. Mosaic of closely grazed grassland alongside areas dominated by taller vegetation characteristic of wet conditions including flag iris, meadowsweet and rushes.
<b>Species poor semi-improved grassland</b>	SI1		Pasture occurring on the edge of the field study area.




Habitat type	Parcel Code	Photograph number	Notes
<p><b>Species poor semi improved grassland</b></p>	<p>S13</p>		<p>Fenced-off unmanaged grassland on an embankment.</p>
<p><b>Species poor semi improved grassland</b></p>	<p>S15</p>		<p>Central reservation. Coarse, little managed grassland with prevalent ruderal species such as nettle.</p>

Habitat type	Parcel Code	Photograph number	Notes
<b>Species poor semi improved grassland</b>	SI6	 A photograph showing a grassy field in the foreground. In the background, there is a dark, long building, possibly a barn or shed, and several trees. The sky is overcast.	Drier area of the wet pasture.
<b>Species poor semi improved grassland</b>	SI7	 A photograph showing a grassy field with a line of trees in the background. The grass is green and appears to be of moderate height. The sky is clear.	Drier part of damp grassland, moderate sward height.



Habitat type	Parcel Code	Photograph number	Notes
Species poor semi improved grassland	SI8		Pasture with sward height of around 15-25cm.
Species poor semi improved grassland	SI9	N/A	Coarse unmanaged verge up to 4m wide.
Species poor semi improved grassland	SI10	N/A	Coarse unmanaged verge up to 4m wide.

Habitat type	Parcel Code	Photograph number	Notes
Tall ruderal vegetation	TR1		Strip of ruderal vegetation in aggregates yard.
Tall ruderal vegetation	TR/SS/SBW1		Road verge vegetation on embankment with dry ditch at the bottom with some aquatic species present.


Habitat type	Parcel Code	Photograph number	Notes
Swamp	SP1		Relatively large area of dense reed with some willow scrub adjacent to the River Itchen.
Swamp	SP3	n/a	Area of dense reeds between two running water channels. Common nettle locally abundant.



Habitat type	Parcel Code	Photograph number	Notes
Swamp	SP4		Linear reed beds around 4m wide growing between two areas of marshy grassland, possibly growing over flush.
Swamp	SP5	n/a	Linear reed bed around 4m wide growing between two areas of marshy grassland, possibly growing over flush.



Habitat type	Parcel Code	Photograph number	Notes
Swamp	SP6		Area of unmanaged land dominated by reed with some trees including mature specimens and recently planted alder.
Swamp	SP7		Area of reed growing over ditch at margin of field. Small amount of willow scrub present.



Habitat type	Parcel Code	Photograph number	Notes
Swamp	SP8		Tall-herb dominated wetland with mown fisherman's path passing through. Occasional shrubs and trees present.
Marginal vegetation	MV1		Un-accessed island to SW3 dominated by emergent sedges.






Habitat type	Parcel Code	Photograph number	Notes
<b>Marginal vegetation</b>	MV2		Band of reeds surrounding ditch. Some scrub encroachment.
<b>Marginal vegetation</b>	MV3	n/a	Band of reeds adjacent to running watercourse.

Habitat type	Parcel Code	Photograph number	Notes
Standing water	SW1		Ditch approximately 1m wide with dense aquatic and emergent vegetation.
Standing water	SW3		Water body connected to main channel of the River Itchen but upstream (i.e. not affected by flow). Appears to be artificial.

Habitat type	Parcel Code	Photograph number	Notes
Standing water	SW4	 A photograph showing a shallow, narrow drainage ditch filled with water. The water is surrounded by dense, green and brownish vegetation, including tall grasses and other emergent plants. The ground around the ditch appears to be a mix of soil and organic matter.	Shallow drainage ditch (likely seasonally dry) with emergent wetland vegetation present
Standing water	SW5	 A photograph of a ditch or stream flowing through a lush, green landscape. The water is surrounded by dense, tall vegetation, including what appears to be a large, leafy plant in the foreground. The water is clear and reflects the surrounding greenery.	Ditch approximately 1m wide with abundant emergent vegetation. Likely some form of road drainage feature.

Habitat type	Parcel Code	Photograph number	Notes
Standing water	SW6		Attenuation pond covered with dense duckweed ( <i>Lemna sp.</i> ).
Standing water	SW7		Ditch along west of A34 filled with water. Around 1m wide. Little or no flow. Likely to be related to highways drainage.



Habitat type	Parcel Code	Photograph number	Notes
Running water	RW1		Approximately 2m wide, clear chalk stream, watercress and marginal vegetation abundant.
Running water	RW2		3m wide, clear chalk stream, watercress and marginal vegetation abundant.

Habitat type	Parcel Code	Photograph number	Notes
Running water	RW3	N/A	Small stream approximately 1m wide x 0.5m deep, abundant emergent vegetation present. Little flow observed. Occurs in association with scattered scrub.
Running water	RW4		Main channel of River Itchen. Approximately 5-10m wide and over 1m deep. Abundant aquatic vegetation, with exposed gravels on bed. Some siltation observed.
Amenity grassland	AM1	N/A	Herb-rich amenity grasslands associated with highways depot.



Habitat type	Parcel Code	Photograph number	Notes
<b>Amenity grassland</b>	AM4		Managed grassland adjacent to residential area.
<b>Amenity grassland with tall ruderal vegetation</b>	AM/TR1		2-4m wide verge vegetated with mixture of managed amenity grassland that grade into tall ruderal vegetation.


Habitat type	Parcel Code	Photograph number	Notes
Introduced shrub	IS1		Landscaped area within Tesco's car park.
	IS2		Area of verge dominated by Wilson's honeysuckle.





Habitat type	Parcel Code	Photograph number	Notes
<p><b>Species rich hedgerow</b></p>	<p>RH1</p>		<p>Managed hedgerow adjacent to Easton Lane, approximately 1.5m x 1.5m width, height (w, h).</p>
<p><b>Species rich hedgerow</b></p>	<p>RH2</p>		<p>Managed hedge adjacent to residential property, approximately 1m x 2m (w, h).</p>


Habitat type	Parcel Code	Photograph number	Notes
<b>Species rich hedgerow</b>	RH3		Hedge approximately 1.5m x 3m (w, h).
<b>Intact species poor hedgerow</b>	PH3		Flailed hedge approximately 3m x 4m (w, h).



Habitat type	Parcel Code	Photograph number	Notes
<p><b>Intact species poor hedgerow</b></p>	<p>PH4</p>		<p>Flailed hedge approximately 1.5m x 1.5m (w, h).</p>
<p><b>Intact species poor hedgerow</b></p>	<p>PH5</p>		<p>Flailed hedge approximately 1.5m x 1.5m (w, h).</p>

Habitat type	Parcel Code	Photograph number	Notes
<b>Intact species poor hedgerow</b>	PH7		Managed roadside hedge approximately 2m x 1.5m (w, h).
<b>Intact species poor hedgerow</b>	PH8	As PH7	Managed roadside hedge approximately 2m x 1.5m (w, h).
<b>Intact species poor hedgerow</b>	PH9	As PH7	Managed roadside hedge approximately 2m x 1.5m (w, h).


Habitat type	Parcel Code	Photograph number	Notes
<p><b>Intact species poor hedgerow</b></p>	<p>PH10</p>		<p>Young planted hedge adjacent to foot path approximately 1m x 1.5m (w, h).</p>
<p><b>Species rich hedgerow with trees</b></p>	<p>RHT1</p>		<p>Heavily flailed hedgerow with small number of <i>Acer sp.</i> trees approximately 1m x 1m (w, h).</p>

Habitat type	Parcel Code	Photograph number	Notes
<p><b>Species rich hedgerow with trees</b></p>	<p>RHT2</p>		<p>As RHT1 but not recently flailed. approximately 1.5m x 4.5m.</p>
<p><b>Species rich hedgerow with trees</b></p>	<p>RHT3</p>		<p>Managed hedge, approximately 1.5m x 2m (w, h). Adjacent to Easton Lane with abundant tall ruderal to base.</p>



Habitat type	Parcel Code	Photograph number	Notes
<p><b>Species rich hedgerow with trees</b></p>	<p>RHT4</p>		<p>Mature hedgerow south of Easton Lane</p>
<p><b>Species rich hedgerow with trees</b></p>	<p>RHT5</p>		<p>Dense mature hedgerow approximately 3m x 4m (w, h) with some mature trees present.</p>

Habitat type	Parcel Code	Photograph number	Notes
<p><b>Species poor hedgerow with trees</b></p>	<p>PHT1</p>		<p>Tall, narrow hedgerow close Junction 9 and likely planted when the road was constructed.</p>
<p><b>Species poor hedgerow with trees</b></p>	<p>PHT2</p>		<p>Established hedgerow either side of the footpath. Includes some mature trees and relatively diverse ground flora.</p>



Habitat type	Parcel Code	Photograph number	Notes
<b>Species poor hedgerow with trees</b>	PHT3	As PHT2	Established hedgerow either side of footpath. Includes some mature trees and relatively diverse ground flora.
<b>Species poor hedgerow with trees</b>	PHT4		Wide hedge (approximately 3m x 3m) over a ditch that contains a small amount of water.

Habitat type	Parcel Code	Photograph number	Notes
<b>Species poor hedgerow with trees</b>	PHT5	 A photograph showing a grassy field in the foreground, leading to a dense hedgerow. Behind the hedgerow, there are several trees, some of which appear to be mature. The sky is overcast.	Established hedgerow with mature trees along the A34. approximately 3m x 4m (w, h)

Habitat type	Parcel Code	Photograph number	Notes
<p><b>Species poor hedgerow with trees</b></p>	<p>PHT6</p>		<p>Sparse hedgerow approximately 1m x 2m (w, h), likely replanted fairly recently. Occasional semi-mature trees.</p>
<p><b>Species poor hedgerow with trees</b></p>	<p>PHT7</p>		<p>Sparse hedge with many gaps. Some new infill planting present. Occasional semi mature trees.</p>

Habitat type	Parcel Code	Photograph number	Notes
Bare ground	BG1		Yard used by <i>R&amp;W</i> contractors for storage and or processing of aggregates/ building materials.
Bare ground	BG2		Recently disturbed ground likely a result of works too adjacent SW3.

# Appendix C

**HABITAT SPECIES LISTS**





### MIXED PLANTATION WOODLAND

Latin name	Common name	PMW1	PMW2	PMW3	PMW4	PMW5	PMW6	PMW/ SI 1
<i>Acer campestre</i>	Field maple	A		O			A	
<i>Acer psuedoplatanus</i>	Sycamore	A						O
<i>Acer sp.</i>	Maple species			LD				
<i>Arum maculatum</i>	Lords and ladies	O		R	O		O	
<i>Asplenium scolopendrium</i>	Hart's tongue fern			R			F	
<i>Betula spp.</i>	Birch	O						
<i>Brachypodium sylvaticum</i>	False brome			R				
<i>Crataegus monogyna</i>	Hawthorn		F					
<i>Cupressaceae sp.</i>	Cypress/ cedar species	LA	LD	LD		D		
<i>Dactylis glomerata</i>	Cock's foot							D
<i>Dipsacus fullonum</i>	Common teasel							O
<i>Euonymus europaea</i>	Spindle				F	F		
<i>Fagus sylvatica</i>	beech		A	F			O	
<i>Helminthotheca echioides</i>	Bristly ox-tongue							O
<i>Fraxinus exelsior</i>	Ash			O				
<i>Hedera helix</i>	Ivy			D	LD		D	
<i>Ilex aquifolium</i>	Holly			O				
<i>Larix sp.</i>	Larch				R			
<i>Ligustum vulgare</i>	Wild privet				O			
<i>Rosa spp.</i>	Rose				O			
<i>Rubus fruticosus agg.</i>	Bramble	F						
<i>Salix sp.</i>	Willow species						R	
<i>Sambucus nigra</i>	Elder					A		
<i>Taxus baccata</i>	Yew			R			D	O
<i>Urtica dioica</i>	Nettle	LD				F		A



## DENSE SCRUB

Latin name	Common name	DS1	DS3	DS4	DS5	DS6	DS7	DS8	DS9	DS12		DS14	DS15	DS16
<i>Acer campestre</i>	Field maple									R	O			
<i>Acer psuedoplatanus</i>	Sycamore											O	O	O
<i>Buddleia davidii</i>	Butterfly bush								O					
<i>Clematis vitalba</i>	Traveller's joy			F				F		O				
<i>Cornus spp.</i>	Dogwood	D				D	D			A			A	A
<i>Corylus avellana</i>	Hazel		LD						O					
<i>Crataegus monogyna</i>	Hawthorn		LD	D						LD	A	R	F	F
<i>Eupatorium cannabinum</i>	Hemp agrimony									O				
<i>Fraxinus exelsior</i>	Ash		R								O	D	A	A
<i>Hedera helix</i>	Ivy									LD	O			
<i>Ligustrum sp.</i>	Privet species			R		LA	LA		F				O	O
<i>Rosa spp.</i>	Rose									O	O			
<i>Rubus fruticosus agg.</i>	Bramble				D			D	F					
<i>Sambucus nigra</i>	Elder			O	R									
<i>Ulex europeaus</i>	Gorse												R	R
<i>Urtica dioica</i>	Nettle				O							O		
<i>Viburnum lantana</i>	Wayfaring tree								A		R			

**SCATTERED SCRUB AND SCATTERED BROADLEAVED TREES**

Latin Name	Common Name	SS1	SS2	SBW1	SBW2	SBW/AM1
<i>Acer campestre</i>	Field maple		O			
<i>Clematis vitalba</i>	Traveller's joy		O			
<i>Crataegus monogyna</i>	Hawthorn		O			
<i>Fagus sylvatica</i>	Beech					D
<i>Festuca rubra</i>	Red fescue				D	A
<i>Fraxinus exelsior</i>	Ash		O			
<i>Hedera helix</i>	Ivy	D	D		D	
<i>Holcus lanatus</i>	Yorkshire fog					A
<i>Hypericum perforatum</i>	Perforate St John's-wort		O			
<i>Leucanthemum vulgare</i>	Ox-eye daisy		O			
<i>Rosa sp.</i>	Rose species		O			
<i>Prunus spinosa</i>	Balckthorn		O			
<i>Salix spp.</i>	Willow species			D		
<i>Crataegus monogyna</i>	Hawthorn	O				
<i>Rubus fruticosus agg.</i>	Bramble	F		D		

## SEMI-IMPROVED CALCAREOUS GRASSLAND

Latin name	Common name	SCG1/SS	SCG2/SS	SCG3/SS	SCG4/SS	SCG5/SS	SCG7/SS	SCG8/SS	SCG9/SS	SCG10	SCG11	SCG12	SCG13	SCG14	SCG15	SCG16
<i>Achillea millefolium</i>	Yarrow				O	O		O	O		O	O	O	O		
<i>Arrhenatherum elatius</i>	False oat-grass										A	A	A	A		
<i>Blackstonia perfoliata</i>	Yellow-wort			R	R	R										
<i>Brachypodium pinnatum</i>	False brome			O	O	O	R	R	A	O	F	F	F	F		
<i>Bromus hordeaceus</i>	Soft brome				O	O									O	O
<i>Bromus sterilis</i>	Barren brome						O	LA	F		O	O				
<i>Bryophyta</i>	Mosses			A												
<i>Centaurea nigra</i>	Knapweed				R	R		R	R				R	R		
<i>Clematis vitalba</i>	Traveller's joy	O	O	D	F	F			A				F	F		
<i>Cochlearia danica</i>	Danish scurvy grass						O	LA	O		O	O				
<i>Crataegus monogyna</i>	Hawthorn			O	O	LA		F	O							
<i>Dactylis glomerata</i>	Cock's foot	O	O	O	LA	O							F	F	A	A
<i>Daucus carota</i>	Wild carrot			R	R	R	O		O				O	O		
<i>Eupatorium cannabinum</i>	Hemp agrimony	F	F	F	O	O			F				F	F		
<i>Festuca rubra</i>	Red fescue	A	A	O	O	O	O	O		O	A	A	O	O	A	A
<i>Fumaria sp</i>	Fumitory species	R	R													
<i>Galium mullugo</i>	Hedge bedstraw						F	F								
<i>Glechoma hederacea</i>	Ground ivy	R	R													
<i>Hedera helix</i>	Ivy				LA	LA	LA	LA					R	R		
<i>Holcus lanatus</i>	Yorkshire fog	O	O	O		O										
<i>Hypericum perforatum</i>	Perforate St John's-wort	O	O	O	R	R	F	F	F	O	O	O	F	F		
<i>Lathyrus pratensis</i>	Meadow vetchling	R	R										O	O		
<i>Leucanthemum vulgare</i>	Ox-eye daisy	O	O	LA		O	F	F	O	F	O	O	O	O		
<i>Ligustrum vulgare</i>	Wild privet	O	O													
<i>Linaria vulgaris</i>	Common toadflax	F	F	R	O	R					O	O	O	O		
<i>Linum catharticum</i>	Fairy flax															O
<i>Lolium perenne</i>	Perennial rye-grass															F
<i>Origanum vulgare</i>	Wild marjoram													O	O	
<i>Medicago lupulina</i>	Black medick	O	O	R						O			O	O	F	F
<i>Mentha sp.</i>	Mint species			R												
<i>Myosotis sp.</i>	Forget-me-not species	O	O							O						
<i>Plantago lanceolata</i>	Ribwort plantain	O	O		O				F	F	O	O	O	O		
<i>Poa pratensis</i>	Smooth meadow-grass			R			O	O								
<i>Poa trivalis</i>	Rough meadow-grass			O												
<i>Primula veris</i>	Cowslip				R	R										
<i>Ranunculus bulbosus</i>	Bulbous buttercup							R	R	O						
<i>Reseda lutea</i>	Wild mignonette			R						O						
<i>Rubus fruticosus agg.</i>	Bramble	O	O	O	O		F	F	F							
<i>Senecio jacobaea</i>	Ragwort					R			O							
<i>Senecio erucifolius</i>	Hoary ragwort														O	O
<i>Silene vulgaris</i>	Bladder campion							R		O	O					
<i>Tragopogon pratensis</i>	Goat's beard			R												
<i>Trifolium dubium</i>	Lesser trefoil			R												
<i>Trifolium pratense</i>	Red clover									R	R					
<i>Verbascum thapsus</i>	Great mullein			R			R			O						
<i>Veronica chamaedrys</i>	Germander speedwell									O						

Latin name	Common name	SCG1/SS	SCG2/SS	SCG3/SS	SCG4/SS	SCG5/SS	SCG7/SS	SCG8/SS	SCG9/SS	SCG10	SCG11	SCG12	SCG13	SCG14	SCG15	SCG16
<i>Vicia cracca</i>	Tufted vetch	O	O	R												
<i>Vicia sativa</i>	Common vetch						R		F							
<i>Vicia sp.</i>	Tare species						R		R							

#### MARSHY GRASSLAND

Latin name	Common name	MG1	MG2	MGG3	MG5	MG6	MG7	MG8	MG9	MG10	MG11	MG12	MG13	MG14	MG15	MG17	MG18
<i>Achillea millefolium`</i>	Yarrow															O	O
<i>Alopecurus pratensis</i>	Meadow foxtail															A	A
<i>Agrostis stolonifera</i>	Creeping bent																
<i>Angelica sylvestris</i>	Wild angelica	R													O	R	R
<i>Caltha palustris</i>	Marsh marigold								O	O		O	O				
<i>Carex spp.</i>	Sedges	A	F	F	A	A	F	A		A	F	F	F	LA		O	O
<i>Cirsium arvense</i>	Marsh thistle				O		R	R		R	R	R	R				
<i>Digitalis purpurea</i>	Foxglove														O		
<i>Festuca rubra</i>	Red fescue					F		F		F							
<i>Ficaria verna</i>	Lesser celendine	R															
<i>Filipendula ulmaria</i>	Meadowsweet	O			R	F	A	A	F	A	A	A	A	F		O	O
<i>Galium aparine</i>	Cleavers														O		
<i>Galium palustre</i>	Marsh bedstraw						O	O		O	O	O	O				
<i>Geum rivale</i>	Water avens					R		R		R							
<i>Glyceria maxima</i>	Reed sweet-grass													LA	D		
<i>Holcus lanatus</i>	Yorkshire fog		LD	LD		A	O	F	A	F	O	O	O			A	A
<i>Iris psuedacorus</i>	Yellow flag-iris	O			O	R		O		O				LA		A	A
<i>Juncus articulatus</i>	Jointed rush					F	F				F	F	F				
<i>Juncus effusus</i>	Soft rush		LA	LA										LD			
<i>Juncus spp.</i>	rush species					A		A	O	A							
<i>Junucua inflexus</i>	Hard rush		O	O	O											R	R
<i>Lolium perenne</i>	Perennial rye-grass		LD	LD												O	O
<i>Lotus pedunculatus</i>	Greater bird's foot trefoil							R		R							
<i>Mentha aquatia</i>	Water mint															O	O
<i>Phalaris arundinacea</i>	Reed canary grass	A			D	A											
<i>Phragmites australis</i>	Common reed					O	O				O	O	O				
<i>Plantago lanceolata</i>	Ribwort plantain						A	O		O	A	A	A			O	O
<i>Potentilla answerina</i>	Silver weed													O			
<i>Potentilla reptans</i>	Creeping cinquefoil						R				R	R	R				
<i>Pulicaria dysenterica</i>	Common fleabane		O	O	R											O	O
<i>Ranunculus acris</i>	Meadow buttercup						O				O	O	O				
<i>Ranunculus repens</i>	Creeping buttercup					O	F				F	F	F			O	O
<i>Rumex acetosa</i>	Common sorrel		O	O		R			A								
<i>Rumex sp.</i>	Dock species							O		O				O			
<i>Salix sp.</i>	Willow				O	O		O		O				F			
<i>Senecio aquaticus</i>	Marsh ragwort							F		F							
<i>Trifolium pratense</i>	Red clover							R		R						O	O
<i>Urtica dioica</i>	Common nettle		O	O	O					F				LD		LA	LA
<i>Veronica beccabunga</i>	Brooklime					O											
<i>Veronica chamaedrys</i>	Germander speedwell	R															
<i>Vicia sp.</i>	Vetch species						R				R	R	R				

**SPECIES POOR SEMI-IMPROVED GRASSLAND, SEMI-IMPROVED NEUTRAL GRASSLAND AND IMPROVED GRASSLAND**

Latin Name	Common Name	SI(P)1	SI(P)2	SI(P)3	SI(P)4	SI(P)5	SI(P)6	SI(P)7	SI(P)8	SI(P)9	SNG1	I1	I2
<i>Achillea millefolium</i>	Yarrow										O		
<i>Anthriscus sylvestris</i>	Cow parsley						LA	O			O		
<i>Alopecurus pratense</i>	Meadow foxtail								O				
<i>Arrhenatherum elatius</i>	False oat-grass					D				A			
<i>Centaurea nigra</i>	Knapweed										R		
<i>Cerastium fontanum</i>	Common mouse-ear				O	A							
<i>Cirsium arvense</i>	Creeping thistle	O											
<i>Dactylis glomerata</i>	Cock's foot	D	O	A	A			F		A	F		
<i>Daucus carota</i>	Wild carrot						F						
<i>Filipendula ulmaria</i>	Meadow sweet											R	R
<i>Festuca rubra</i>	Red fescue	O					F			A		LA	LA
<i>Ficaria verna</i>	Lesser celandine											R	R
<i>Galium aparine</i>	Cleavers									LA			
<i>Geum rivale</i>	Water avens						R						
<i>Geranium molle</i>	Dove's foot crane's bill				R								
<i>Heracleum sphondylium</i>	Hogweed								O	A	R		
<i>Holcus lanatus</i>	Yorkshire fog		A	D	A		A	LA	D		A	A	A
<i>Junucua inflexus</i>	Hard rush		O	O			LA						
<i>Leucanthemum vulgare</i>	Ox-eye daisy										F		
<i>Lolium perenne</i>	Perennial rye-grass		A		A							D	D
<i>Plantago lanceolata</i>	Ribwort plantain			O							O		
<i>Ranunculus bulbosus</i>	Bulbous buttercup										F		
<i>Ranunculus repens</i>	Creeping buttercup	O	F	R			O					O	O
<i>Rumex sp.</i>	Dock species							O	O				
<i>Trifolium repens</i>	White clover				O		O						
<i>Symphytum officinale</i>	Common comfrey										R		
<i>Urtica dioica</i>	Common nettle			R				O	F				

### TALL RUDERAL VEGETATION

Latin Name	Common Name	TR1	TR/ SS/ SBW
<i>Acer psuedoplatanus</i>	Sycamore		O
<i>Aegopodium podagraria</i>	Ground elder	A	
<i>Anthriscus sylvestris</i>	Cow parsley		A
<i>Heracleum sphondylium</i>	Hogweed	F	
<i>Salix sp.</i>	Willow species		A
<i>Symphytum officinale</i>	Common comfrey		F
<i>Urtica dioica</i>	Common nettle	A	LD
<i>Rubus fruticosus agg.</i>	Bramble	O	
<i>Chamerion angustifolium</i>	Rosebay willowherb	A	
<i>Phragmites australis</i>	Common reed		F
<i>Conium maculatum</i>	Hemlock		O

### SWAMP AND MARGINAL VEGETATION

Latin Name	Common Name	SP1	SP3	SP4	SP5	SP6	SP7		MV1	MV2	MV3
<i>Alnus glutinosa</i>	Alder					O	O				
<i>Angelica sylvestris</i>	Wild angelica			O	O						O
<i>Caltha palustris</i>	Marsh marigold			O	O						O
<i>Cardamine pratensis</i>	Cuckoo flower			R	R						
<i>Carex spp.</i>	Sedge species			O	O		R	O	D		O
<i>Deschampsia cespitosa</i>	Tufted hair-grass			O	O						
<i>Epilobium hirsutum</i>	Greater willowherb							F			
<i>Galium palustre</i>	Marsh bedstraw			R	R						
<i>Impatiens capensis</i>	Orange balsam							R			
<i>Iris pseudacorus</i>	Yellow flag-iris			O	O		O				O
<i>Juncus spp.</i>	Rush species			F	F						
<i>Mentha aquatica</i>	Water mint						R	O			
<i>Phragmites australis</i>	Common reed	D	D	D	D	D	D	A	O	D	D

Latin Name	Common Name	SP1	SP3	SP4	SP5	SP6	SP7		MV1	MV2	MV3
<i>Salix spp.</i>	Willow species					O	R		O	O	
<i>Solanum dulcamara</i>	Bittersweet							F			
<i>Symphytum officinale</i>	Common comfrey							F			
<i>Typha sp.</i>	Bulrush species			R	R						R
<i>Urtica dioica</i>	Common nettle		LA			A	O	F			

#### AMENITY GRASSLAND AND INTRODUCED SHRUB

Latin Name	Common Name	AM1	AM2	AM3	AM4	IS1	IS2
<i>Bellis perennis</i>	Common daisy						
<i>Buxus sempervirens</i>	Box					O	
<i>Centaurea nigra</i>	Knapweed		R				
<i>Dactylis glomerata</i>	Cock's foot		LA				
<i>Daucus carota</i>	Wild carrot	R					
<i>Dipsacus fullonum</i>	Common teasel		O				
<i>Fagus sylvatica</i>	Beech					O	
<i>Festuca rubra</i>	Red fescue	O					
<i>Forsythia suspensa</i>	Forsythia					O	
<i>Helminthotheca echioides</i>	Bristly ox-tongue		O				
<i>Holcus lanatus</i>	Yorkshire fog		A				
<i>Hypericum androsaemum</i>	Tutsan					O	
<i>Leucanthemum vulgare</i>	Ox-eye daisy		O				
<i>Lolium perenne</i>	Perennial rye-grass	F	F	D	D		
<i>Lonicera nitida</i>	Wilson's Honeysuckle						D
<i>Plantago lanceolata</i>	Ribwort plantain	F	O				
<i>Ranunculus repens</i>	Creeping buttercup			O			
<i>Trifolium repens</i>	White clover	O					
<i>Urtica dioica</i>	Common nettle		O				

**SPECIES RICH HEDGEROW AND SPECIES POOR HEDGEROW**

Latin Name	Common Name	RH1	RH2	RH3	PH3	PH4	PH5	PH7	PH8	PH9	PH10
<i>Acer campestre</i>	Field maple		F								
<i>Acer pseudoplatanus</i>	Sycamore	O				O					R
<i>Clematis vitalba</i>	Traveller's joy			F							
<i>Cornus sanguinea</i>	Dogwood	O	A	O							
<i>Corylus avellana</i>	Hazel										R
<i>Crataegus monogyna</i>	Hawthorn	O	O	O	D	D	D	D	D	D	D
<i>Euonymus europaea</i>	Spindle										R
<i>Ligustum vulgare</i>	Wild privet	A									
<i>Prunus spinosa</i>	Blackthorn	R	F	O							
<i>Quercus robur</i>	Pedunculate oak										
<i>Rosa spp.</i>	Rose	O	O	O							

**SPECIES RICH HEDGEROW WITH TREES**

Latin Name	Common Name	RHT1	RHT2	RHT3	RHT4	RHT5
<i>Acer campestre</i>	Field maple	R	R	O	R	
<i>Acer psuedoplatanus</i>	Sycamore			A	R	O
<i>Alnus glutinosa</i>	Alder					R
<i>Cornus sanguinea</i>	Dogwood			F	R	F
<i>Crataegus monogyna</i>	Hawthorn	O	O	O	O	F
<i>Hedera helix</i>	Ivy			F		
<i>Ligustum vulgare</i>	Wild privet	O	O	O	A	O
<i>Prunus spinosa</i>	Blackthorn	O	O		R	
<i>Quercus robur</i>	Pedunculate oak					
<i>Rosa spp.</i>	Rose	O	O			O
<i>Rubus fruticosus agg.</i>	Bramble					O



**SPECIES POOR HEDGEROW WITH TREES**

Latin Name	Common Name	PHT1	PHT2	PHT3	PHT4	PHT5	PHT6	PHT7
<i>Acer campestre</i>	Field maple	D				O		
<i>Alnus glutinosa</i>	Alder		O	O				
<i>Cornus sanguinea</i>	Dogwood		O	O				O
<i>Corylus avellana</i>	Hazel					D		
<i>Crataegus monogyna</i>	Hawthorn	O			D		A	A
<i>Euonymus europaea</i>	Spindle						O	
<i>Fagus sylvatica</i>	Beech							O
<i>Fraxinus exelsior</i>	Ash							O
<i>Prunus sp.</i>	Cherry						O	
<i>Prunus spinosa</i>	Blackthorn		O	O		O		
<i>Rubus fruticosus agg.</i>	Bramble		A	A	A			
<i>Sambucus nigra</i>	Elder				O			