

LEGEND:

- 150m buffer
- Phase 1 habitat classifications**
- A1.1.1 - Broadleaved woodland - semi-natural
- A1.1.2 - Broadleaved woodland - plantation
- B4 - Improved grassland
- B6 - Poor semi-improved grassland
- G1 - Standing water
- J1.1 - Cultivated/disturbed land - arable
- J1.2 - Cultivated/disturbed land - amenity grassland
- G2 - Running water
- J2.1.2 - Intact hedge - species-poor
- J2.3.2 - Hedge with trees - species-poor
- J2.4 - Fence
- A2.2 - Scrub - scattered
- A3.1 - Broadleaved Parkland/scattered trees
- Target Note

100 0 100 200 300 m

STATUS:

FOR INFORMATION ONLY



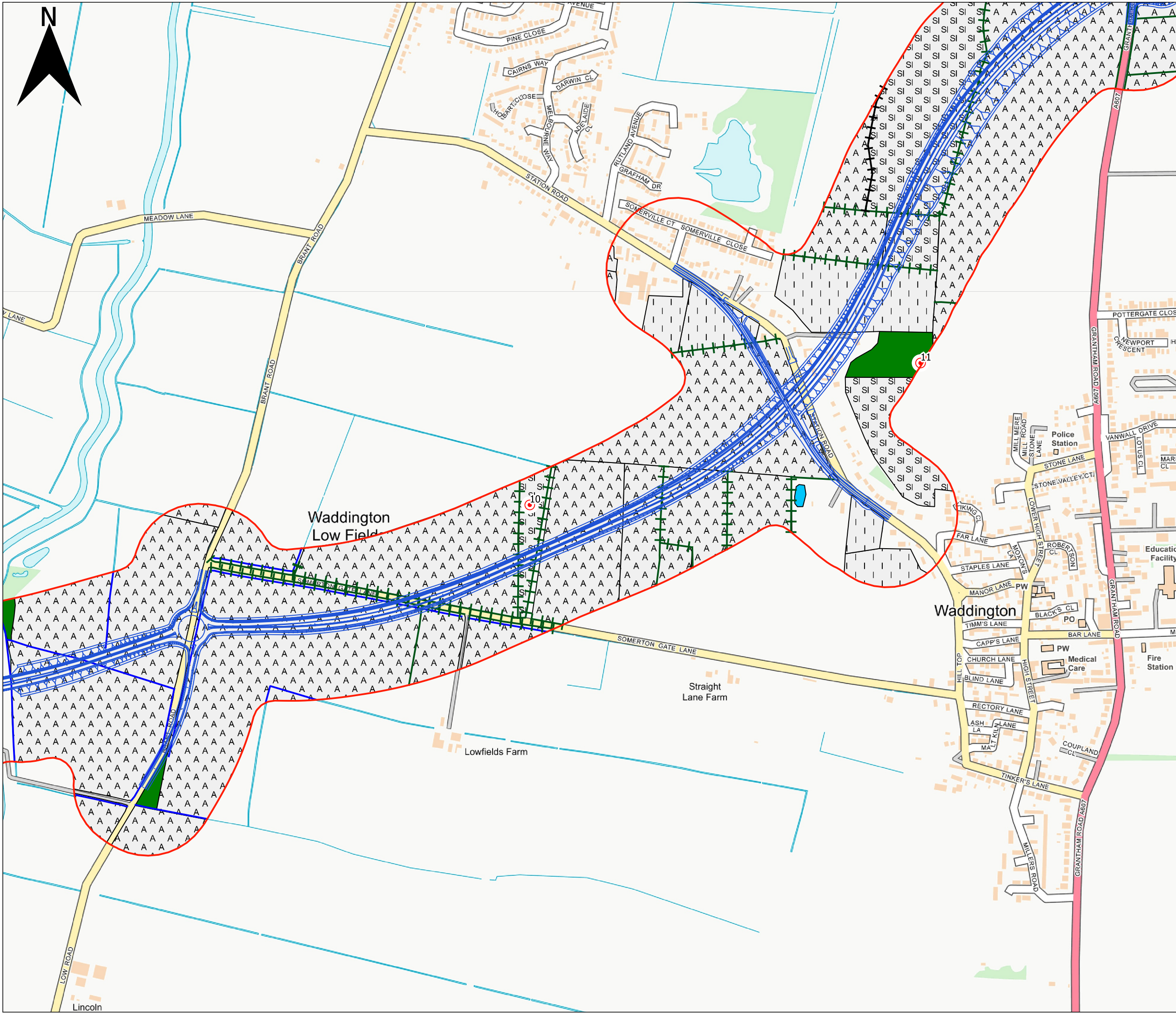
Three White Rose Office Park,
Millshaw Park Lane, Leeds LS11 0DL.
Tel: T +44 (0) 113 395 6200
www.wsp.com

CLIENT:
LINCOLNSHIRE COUNTY COUNCIL

PROJECT:
LINCOLN SOUTHERN BYPASS

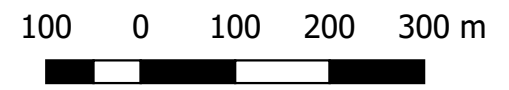
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Phase 1 habitat map

SCALE @A3: 1:8,000	CHECKED: PH	APPROVED: BB
QGIS FILE:	DRAWN: 15/01/18	DATE: 06/04/18
PROJECT No: 70038233	DRAWING No: Page 2 of 4	REV: 0.1



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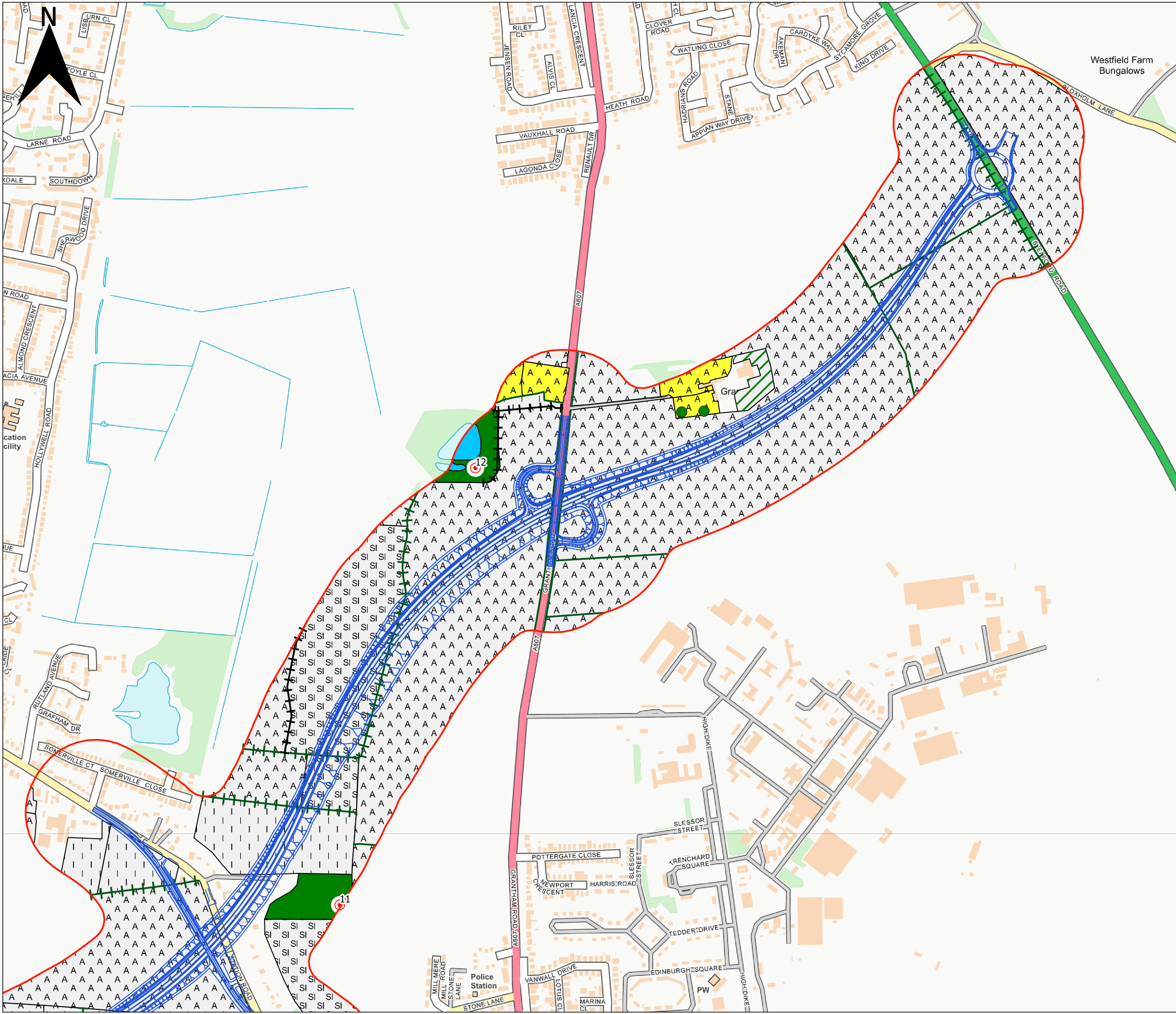
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Appendix A



RELEVANT LEGISLATION AND PLANNING POLICY

ENGLAND & WALES LEGISLATION AND POLICY CONTEXT

This report has been compiled with reference to relevant wildlife legislation, planning policy and the UK Biodiversity Framework. An overview and context of relevant legislation is provided, with the relevant protection each species groups or species receives summarised in Table 1.

The Wildlife and Countryside Act 1981, (as amended) (WCA)

Protected birds, animals and plants are listed under Schedules 1, 5, 8 and 9 respectively of the WCA, a description of these Schedules and their meaning is provided below.

Under the WCA (England and Wales) all birds, their nests and eggs (with exception of species listed under Schedule 2) are protected by the WCA. It is an offence to:

- intentionally kill, injure, or take any wild bird,
- take or destroy an egg of any wild bird.
- damage or destroy the nest of any wild bird (whilst being built, or in use). Under the WCA the clearance of vegetation within the survey area boundary, or immediately adjacent to the survey area during the bird nesting season could result in an offence occurring by the disruption or destruction of nest sites. The bird breeding season can be taken to occur between March - August inclusive, although is subject to variations based on species, geographical and seasonal factors.

Schedule 1

Birds listed under Schedule 1 of the WCA⁹ are afforded additional protection with regard to intentional or reckless disturbance whilst nest-building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

Schedule 5

Species listed in Schedule 5 can either be fully protected or be partially protected under Section 9, which makes it unlawful to intentionally:

- Part 1: kill, injure or take;
- Part 2: possess or control (live or dead animal, part or derivative);
- Part 4 (a): damage or destruct any structure used for shelter or protection;
- Part 4 (b): disturb them in a place of shelter or protection;
- Part 4 (c): obstruct access to place of shelter or protection;
- Part 5 (a): sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative);
- Part 5 (b): advertise for buying or selling.

Schedule 8

The Act makes it an offence (subject to exceptions) to pick, uproot, trade in, or possess (for the purposes of trade) any wild plant listed in Schedule 8, and prohibits the unauthorised intentional uprooting of such plants.

Schedule 9

Invasive species listed under Schedule 9 are prohibited from release into the wild and the Act prohibits planting or “causing to grow” in the wild of any plant species listed in Schedule 9. It should be noted that certain bird species listed on Schedule 1 of the WCA are also listed on Schedule 9 to prevent release of non-native and captive individuals, this includes barn owl, red kite, goshawk and corncrake.

Countryside Rights of Way Act 2000 (CRoW Act)

The CRoW Act has amended the WCA in England and Wales strengthening the protection afforded to Sites of Special Scientific Interest (SSSI) and the legal protection for threatened species. It adds the word ‘reckless’ to the wording of the offences listed under Section 9(4) of the WCA. This alteration makes it an offence to recklessly commit an offence, where previously an offence had to be intentional to result in a breach of legislation.

⁹ To view the current list of Schedule 1 listed birds visit: <http://www.legislation.gov.uk/ukpga/1981/69/schedule/1> [Accessed 15.01.2018].

Natural Environment and Rural Communities (NERC) Act 2006

Species and Habitats of Principal Importance in England and Wales are listed under Section 41 and Section 42 respectively of the NERC Act. The Section 41 and 42 lists detail species that are of principal importance for the conservation of biodiversity in England and Wales, and should be used to guide decision-makers such as local and regional authorities when implementing their duty to have regard for the conservation of biodiversity in the exercise of their normal functions – as required under Section 40 of the NERC Act 2006.

The Environment (Wales) Act 2016

The Environment (Wales) Act 2016 (<http://www.legislation.gov.uk/anaw/2016/3/contents/enacted>) puts in place the legislation needed to plan and manage Wales' natural resources in a more proactive, sustainable and cohesive way. Section 7 replaces the duty in Section 42 of the NERC Act 2006 and it places a duty on the Welsh Ministers to publish, review and revise lists of living organisms and types of habitats which they consider are of key significance to sustain and improve biodiversity in Wales. The species and habitat lists are identical to those in Section 42 but it should be noted it is currently under review (23.03.2017).

The Protection of Badgers Act (1992)

It is an offence to wilfully take, kill, injure, possess or ill-treat a badger. Under the Act their setts are protected against intentional or reckless interference. Sett interference includes damaging or destroying a sett, obstructing access to any part of the sett, or disturbance of a badger whilst it is occupying a sett. The Act defines a badger sett as 'any structure or place, which displays signs indicating the current use by a badger' and Natural England (NE) takes this definition to include seasonally used setts that are not occupied but that show sign of recent use by badgers (Natural England, 2009¹⁰).

If impacts to badgers or their setts are unavoidable then authorised sett disturbance requires a licence.

The UK Post-2010 Biodiversity Framework (2011-2020) (JNCC and DEFRA, 2012)

This Framework lists the UK's most threatened species and habitats and sets out targets and objectives for their management and recovery. The UK Biodiversity Action Plan (BAP) process is delivered nationally, regionally and locally and should be used as a guide for decision-makers to have regards for the targets set by the framework and the goals they aim to achieve. The UK BAP has now been replaced by the UK Post-2010 Biodiversity Framework, however, it contains useful information on how to characterise important species assemblages and habitats which is still relevant (UK Post-2010 Biodiversity Framework, 2012¹¹).

The Conservation of Habitats and Species Regulations 2010 (as amended)

The EC Habitats Directive and EC Birds Directive is transposed into UK law via the Conservation of Habitats and Species Regulations 2010 (as amended), referred to as the Habitats Regulations. All species listed under Annex IV of the Habitats Directive require strict protection and are known as European Protected Species (EPS).

Under Regulation 41 of the Habitats Regulations it is unlawful to:

- Deliberately kill, capture or disturb;
- Deliberately take or destroy the eggs of; and
- Damage or destroy the breeding site/resting place of any species protected under this legislation.

If the Ecologist determines that impacts to an EPS are unavoidable then the works may need to be carried out under a site specific mitigation licence from Natural England (NE) or Natural Resources Wales (NRW). Low Impact Class licences are also available in both England and Wales for bats and great crested newts. This enables Registered Low Impact Consultants to undertake certain low impact activities reducing the EPS application paperwork and process length.

Certain EPS are also listed under Annex II of the Habitats Directive and are afforded protection by the establishment of core areas of habitat known as Special Areas of Conservation. This means these species are a relevant consideration in a Habitats Regulations Assessment (HRA).

The Birds Directive seeks to maintain populations of all wild bird species across their natural range (Article 2). All bird species listed under Annex I¹² of the Birds Directive are rare or vulnerable and afforded protection by the classification of Special Protection Areas (SPAs), these are also designated under all regularly occurring migratory species, with regard to the protection of wetlands of international importance (Article 4). This means these bird species and communities are a relevant consideration in HRA.

¹⁰ Natural England, June 2009, Protection of Badgers Act 1992 (as amended), Guidance on 'Current Use' in the definition of a Badger Sett WMLG17, Natural England, Peterborough.

¹¹ JNCC and Defra (on behalf of the Four Countries' Biodiversity Group), July 2012, UK Post-2010 Biodiversity Framework, Available from: http://jncc.defra.gov.uk/pdf/UK_Post2010_Bio-Fwork.pdf [Accessed 15.01.2018].

¹² To view birds listed under Annex I visit: http://ec.europa.eu/environment/nature/conservation/wildbirds/threatened/index_en.htm [Accessed 15.01.2018]

Table A:1: Key Species and National Wildlife Legislation, Policy and Biodiversity Framework Applicable in England & Wales

Species	Legislation, Planning Policy and UK Biodiversity Framework							
	Wildlife and Countryside Act 1981 (as amended), (WCA)				The Conservation of /Habitats and Species Regulations 2010 (as amended) (Habitats Regulations) - Regulation 41	Natural Environment and Rural Communities (NERC) Act 2006 / The Environment(Wales) Act (2016)	The Protection of Badgers Act 1992	The UK Post-2010 Biodiversity Framework 2011-2020 (JNCC and DEFRA, 2012)
	Schedule 1	Schedule 5	Schedule 8	Schedule 9	European Protected Species (Annex IV of the EC Habitats Directive),			
Badger							✓	
Bats		✓ ¹³ (part)			✓ ¹⁴	✓ ¹⁵		✓ ¹⁶
Hazel Dormouse		✓ 5(part)			✓	✓		✓
Otter		✓ 5(part)			✓	✓		✓
Water vole		✓ ¹⁷ (full)				✓		✓
Birds	✓			✓ ¹⁸		✓ ¹⁹		✓ ²⁰
Reptiles		✓ ²¹ (part)□		✓ ⁹	✓ ²²	✓ ²³		✓ ²⁴

¹³ These species are partially protected under section 9(4)(b), (4)(c) and (5).

¹⁴ Only Barbastelle (*Barbastella barbastellus*), Bechstein's bat (*Myotis bechsteinii*), greater horseshoe bat (*Rhinolophus ferrumequinum*) and lesser horseshoe bat (*Rhinolophus hipposideros*) are listed on Annex II of the Habitats Directive.

¹⁵ Greater horseshoe bat, lesser horseshoe bat, Bechstein's bat, noctule (*Nyctalus noctula*), soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared bat (*Plecotus auritus*) and barbastelle are listed as Species of Principal Importance in England with the addition of common pipistrelle (*Pipistrellus pipistrellus*) in Wales listed under

Section 7 of the Environment (Wales) Act (2016) <http://www.legislation.gov.uk/ukpga/2006/16/contents>.

¹⁶ Barbastelle bat, Bechstein's bat, noctule, soprano pipistrelle, brown long-eared bat, greater horseshoe bat, lesser horseshoe bat are listed as UK BAP species of bat.

¹⁷ Class Licences are available to Registered Consultants to intentionally disturb, damage or destroy water vole burrows or to displace water voles from their burrows in relation to a development proposal where the licensed action provides a conservation benefit for water voles. Certain displacement operations may be carried out under a Class licence by a registered person in England, however in Wales all displacement operations must be carried out under a site specific licence.

¹⁸ To view plants and animals listed on Schedule 9 Part 1 visit <http://www.legislation.gov.uk/ukpga/1981/69/schedule/9> [Accessed 15.01.2018]

¹⁹ There are 49 species of birds listed as Species of Principal Importance in England in Section 41 of the NERC Act 2006 and 51 species in Wales under Section 7 of the Environment (Wales) Act (2016) <http://www.legislation.gov.uk/ukpga/2006/16/contents>.

²⁰ To view the current list of UK BAP priority birds visit: <http://jncc.defra.gov.uk/page-5163> [Accessed 15.01.2018].

²¹ The four common reptile species, Adder (*Vipera berus*), Grass snake (*Natrix natrix*), Common lizard (*Zootoca vivipara*) and Slow worm (*Anguis fragilis*) are offered partial protection under section 9(5). The rarer UK reptile species (Smooth snake (*Coronella austriaca*) and Sand lizard (*Lacerta agilis*)) are partially protected under section 9(4)(b) and (c) and (5).

²² Smooth snake (*Coronella austriaca*) and Sand lizard (*Lacerta agilis*) are the only reptiles to be designated as European Protected Species.

²³ All 6 reptile species are listed as Species of Principal Importance in England listed under Section 41 of the NERC Act 2006 and 5 species, excluding smooth snake, listed under Section 7 of the Environment (Wales) Act (2016) <http://www.legislation.gov.uk/ukpga/2006/16/contents>.

²⁴ To view the current list of UK BAP priority herptile species visit: <http://jncc.defra.gov.uk/page-5166> [Accessed 15.01.2018].

Amphibians		✓ ²⁵ (part)		✓ ²⁶	✓ ^{27, 28}	✓ ²⁹	
White-clawed Crayfish		✓ ³⁰ (partial)			✓ ³¹	✓	✓
Invertebrates		✓ ³² (full/part)		✓	✓ ^{33, 34}	✓ ³⁵	✓ ³⁶
Fish		✓ ³⁷ (full/part)		✓ ⁹	✓ ^{38, 39}	✓ ⁴⁰	✓ ⁴¹
Plants			✓ ⁴²	✓ ⁹	✓ ^{43, 44}	✓ ⁴⁵	✓ ⁴⁶

²⁵ The four common reptile species, Adder (*Vipera berus*), Grass snake (*Natrix natrix*), Common lizard (*Zootoca vivipara*) and Slow worm (*Anguis fragilis*) are offered partial protection under section 9(5). The rarer UK reptile species (Smooth snake (*Coronella austriaca*) and Sand lizard (*Lacerta agilis*)) are partially protected under section 9(4)(b) and (c) and (5).

²⁶ Common frog (*Rana temporaria*), Common toad (*Bufo bufo*), Smooth newt (*Lissotriton vulgaris*) and Palmate newt (*Lissotriton helveticus*) are offered partial protection under section 9(5). Great crested newt (*Triturus cristatus*) and Natterjack toad (*Epidalea calanita*) are offered partial protection under section 9(4)(b) and (c) and (5). Pool frog (*Pelophylax lessonae*) is offered partial protection under section 9(4)(b) and (c)(1) only and with respect to England only.

²⁷ Great crested newt, Natterjack toad and Pool frog are the only amphibians to be designated European Protected Species.

²⁸ Great crested newt is the only amphibian listed on Annex II of the Habitats Directive.

²⁹ Great crested newt, Natterjack toad and Common toad are listed as Species of Principal Importance in England in Section 41 of the NERC Act 2006 and under Section 7 of the Environment (Wales) Act (2016) <http://www.legislation.gov.uk/ukpga/2006/16/contents>.

³⁰ Under the Wildlife and Countryside Act it is illegal to take or sell white clawed crayfish under the WCA. A licence is required to survey (hand net or trap) for the species. To undertake work within WCC inhabited rivers a Class Licence maybe issued by the relevant authority to move WCC away from harm prior to works. Although WCC are not protected from killing or injury Natural England state in their Class licence that due to declining numbers all efforts should be made to conserve the species.

³¹ White clawed crayfish are listed under Annex II and V of the Habitats Directive.

³² To view the current list of invertebrates that are protected under this Act either in part or full visit: <http://www.legislation.gov.uk/ukpga/1981/69/schedule/5> [Accessed 15.01.2018].

³³ The Large blue butterfly (*Maculinea arion*), Fisher's estuarine moth (*Gortyna borelii lunata*) and Lesser whirlpool ram's-horn snail (*Anisus vorticulus*) are the only invertebrates to be designated European Protected Species.

³⁴ There are currently twelve invertebrates listed in Annex II of the Habitats Directive; White-clawed crayfish (*Austropotamobius pallipes*), Southern damselfly (**Coenagrion mercuriale**), Marsh fritillary butterfly (*Eurodryas aurinia*), Violet click beetle (*Limoniscus violaceus*), Stag beetle (*Lucanus cervus*), Freshwater pearl mussel (*Margaritifera margaritifera*), Narrow-mouthed whorl snail (*Vertigo angustior*), Round-mouthed whorl snail (*Vertigo genesii*), Geyer's whorl snail (*Vertigo geyeri*), Desmoulin's whorl snail (*Vertigo moulinsiana*), Lesser whirlpool ram's-horn snail (*Anisus vorticulus*) and Fisher's estuarine moth (*Gortyna borelii lunata*).

³⁵ There are currently 379 invertebrate species (not including marine species) listed as Species of Principal Importance in England http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=4&ved=0ahUKEwivvu7J9trSAhXiCsAKHX4TBGcQFggvMAM&url=http%3A%2F%2Fpublications.naturalengland.org.uk%2Ffile%2F6518755878240256&usq=AFQjCNEpiUWYuOghVcfSDvi_3iK2TJytfQ and 188 species in Wales http://www.eryri-npa.gov.uk/data/assets/pdf_file/0003/486156/SpeciesList.pdf listed under Section 41 of the NERC Act 2006 and listed under Section 7 of the of the Environment (Wales) Act 2016. [Accessed 15.01.2018]

³⁶ To view the current list of UK BAP priority invertebrates visit: <http://jncc.defra.gov.uk/page-5169> [Accessed 15.01.2018].

³⁷ To view the current list of fish either part or fully protected under the Act visit: <http://www.legislation.gov.uk/ukpga/1981/69/schedule/5> [Accessed 15.01.2018].

³⁸ Sturgeon (*Acipenser sturio*) is the only fish to be designated a European Protected Species.

³⁹ There are eight fish species listed on Annex II of the Habitats Directive. To view the current list visit: <http://jncc.defra.gov.uk/page-1523> [Accessed 15.01.2018].

⁴⁰ There are 35 species of fish listed as Species of Principal Importance in England listed under Section 41 of the NERC Act 2006 and 10 species in Wales listed under Section 7 of the Environment (Wales) Act 2016.

⁴¹ To view the current list of UK BAP priority fish visit: <http://jncc.defra.gov.uk/page-5164> [Accessed 15.01.2018].

⁴² To view the current list of Schedule 8 listed plants visit: <http://www.legislation.gov.uk/ukpga/1981/69/schedule/8> [Accessed 15.01.2018].

⁴³ There are nine plant species designated as European Protected Species. To view the current list visit: <http://www.legislation.gov.uk/ukxi/2010/490/schedule/5/made> [Accessed 15.01.2018].

⁴⁴ To view the current list of plant species on Annex II of the Habitats Directive visit: <http://jncc.defra.gov.uk/page-1523> [Accessed 15.01.2018].

⁴⁵ There are currently 152 vascular plants listed as Species of Principal Importance in England listed under Section 41 of the NERC Act 2006 and 77 species in Wales listed under Section 7 of the Environment (Wales) Act 2016.³¹ To view the current list of UK BAP priority plants visit: <http://jncc.defra.gov.uk/page-5171> and <http://jncc.defra.gov.uk/page-5168> [Accessed 15.01.2018].

⁴⁶ To view the current list of UK BAP priority plants visit: <http://jncc.defra.gov.uk/page-5171> and <http://jncc.defra.gov.uk/page-5168> [Accessed 15.01.2018].

Appendix B



SUMMARY OF ECOLOGICAL DESK STUDY DATA

Table 7 - Non-statutory designated sites within 2km of the Survey Area

Site Name	Designation	Distance from Site
Birchwood Nature Park	Local Wildlife Site (LWS)	3.56
Bloxholm Lane	LWS	0.11
Boultham Main Drain	LWS	4.83
Boultham Mere	LWS	4.92
Boultham Park	LWS	3.05
Branston, Sleaford Road Verges	LWS	3.85
Brayford Pool	LWS	4.60
Canwick Park Gold Course	LWS	3.00
Canwick Road Cemetery	LWS	3.35
Canwick Road New Cemetery & St Swithin's Ce.	LWS	3.48
Catchwater Drain, Lincoln	LWS	3.44
Cinder Plot	LWS	3.04
Cliff Farm Footpaths	LWS	2.42
Coleby, Heath Road Verges	LWS	3.97
Cow Paddle	LWS	3.45
Cow Paddle East	LWS	3.72
Cow Paddle Railway Embankment East	LWS	3.80
Greetwell Junction Railway Embankment	LWS	4.00
Harmston Quarry	LWS	3.28
Harstholme Country Park	LWS	4.09
Hartsholme West	LWS	4.23
High Dike, Coleby Mill to Harmston Verges	LWS	2.86
Hospital Plantation	LWS	3.60
Hurn Wood, Eagle	LWS	4.89
Hykeham Railway Line, East	LWS	2.62
Hykeham Railway Line, Whisby Nature Park	LWS	1.61
Mr Neville's Pits East, Whisby Pits Complex	LWS	1.72
Mr Neville's Pits West, Whisby Pits Complex	LWS	1.92
Newark Road to River Witham Drain	LWS	2.30



Nocton Heath, Grange Lane Verges	LWS	4.47
North Hykeham Gravel Pit	LWS	0.74
North Hykeham Hayfield	LWS	0.79
Potterhanworth, Station Road Verges	LWS	4.24
Richmond Lakes	LWS	2.80
Ski World, Whisby Pits Complex	LWS	0.76
South Common	LWS	2.12
South Witham Marshes	LWS	2.29
Starmer's Pit	LWS	3.88
Swan Pool	LWS	4.91
Teal's Lake, Whisby Pits Complex	LWS	1.29
The Jungle	LWS	3.50
Tunman Wood	LWS	2.87
Waddington Grassland (Viking Way)	LWS	0.00
Whisby Nature Park, Whisby Pits Complex	LWS	1.32
Whisby Stocking	LWS	4.52
Willingham Fen West	LWS	4.46
Witham Corridor, East of City Centre	LWS	4.14
Witham Corridor, North of Bracebridge	LWS	2.58
Witham Corridor, South of Bracebridge	LWS	1.92
Witham Leas	LWS	2.18
Witham Marshes	LWS	2.67
Witham Valley South Drain	LWS	2.29
Tunman Wood North		2.99
Main Drain, Tritton Road	LWS	4.42
Brant Plantation	LWS	2.11
Brant Washlands	LWS	0.29
River Witham, Bracebridge to South Hykeham	LWS	0.00
River Witham, Auburn to Beckingham	LWS	1.85
North Hykeham Meadows	LWS	0.85
Waddington Brick Pit	Local Geological Site (LGS)	0.30
Cliff Farm Stream	Site of Nature Conservation Interest (SNCI)	3.87

Morton Lane	SNCI	3.79
Old Orchard	SNCI	3.79
Pickworth's Plot	SNCI	3.54
South Hykeham Meadows 1	SNCI	0.27
South Hykeham Meadows 3	SNCI	0.28
Washingborough Junction	SNCI	4.43

Table 8 - Protected and notable species (excluding birds) for which records have been identified within 2km

Species common name	Species Latin name	No. of records	Date Range
Common toad	<i>Bufo bufo</i>	177	1977-2016
Great crested newt	<i>Triturus cristatus</i>	64	1977-2014
Common lizard	<i>Zootoca vivipara</i>	71	1977-2016
Grass snake	<i>Natrix Helvetica</i>	76	1977-2016
Slow-worm	<i>Anguis fragilis</i>	22	1977-2016
Brandt's bat	<i>Myotis brandtii</i>	1	2004
Brown long-eared bat	<i>Plecotus auritus</i>	50	1968-2013
Common pipistrelle	<i>Pipistrellus pipistrellus senu stricto</i>	117	1999-2016
Daubenton's bat	<i>Myotis daubentonii</i>	46	1978-2016
Nathusius's pipistrelle	<i>Pipistrellus nathusisi</i>	2	2008-2013
Natterer's bat	<i>Myotis nattereri</i>	1	1997
Noctule	<i>Nyctalus noctula</i>	81	1966-2016
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	60	2004-2016
Western barbastelle	<i>Barbastella barbastellus</i>	3	2006-2010
Whiskered bat	<i>Myotis mystacinus</i>	3	1989-2015
Brown hare	<i>Lepus europaeus</i>	583	1893-2016
Eurasian badger	<i>Meles meles</i>	93	1906-2016
Eurasian red squirrel	<i>Sciurus vulgaris</i>	2	1977-2008
European otter	<i>Lutra lutra</i>	71	1946-2016
European water vole	<i>Arvicola amphibious</i>	221	1977-2017
West European hedgehog	<i>Erinaceus europaeus</i>	374	1965-2016
Barbel	<i>Barbus barbus</i>	5	1998-2005
European eel	<i>Anguilla anguilla</i>	178	1985-2017
Spined loach	<i>Cobitis taenia</i>	37	1981-2016

Table 9 - Protected and notable birds for which records have been identified within 2km

Species common name	Species Latin name	No. of records
Avocet	<i>Recurvirostra avosetta</i>	3
Barn owl	<i>Tyto alba</i>	226
Barnacle goose	<i>Branta leucopsis</i>	38
Bean goose	<i>Anser fabalis</i>	2
Bearded tit	<i>Panurus biarmicus</i>	2
Bewick's swan	<i>Cygnus columbianus subsp. bewickii</i>	28
Bittern	<i>Botaurus stellaris</i>	202
Black redstart	<i>Phoenicurus ochruros</i>	24
Black-necked grebe	<i>Podiceps nigricollis</i>	73
Black-tailed godwit	<i>Limosa limosa</i>	85
Brent goose	<i>Branta bernicla</i>	6
Bullfinch	<i>Pyrrhula pyrrhula</i>	1954
Common scoter	<i>Melanitta nigra</i>	32
Corn bunting	<i>Emberiza calandra</i>	48
Curlew	<i>Numenius arquata</i>	256
Dark-bellied brent goose	<i>Branta bernicla subsp. bernicla</i>	1
European greater white-fronted goose	<i>Anser albifrons subsp. albifrons</i>	1
Fieldfare	<i>Turdus pilaris</i>	1006
Gadwall	<i>Anas strepera</i>	2258
Garganey	<i>Anas quereedula</i>	26
Goldeneye	<i>Bucephala clangula</i>	2043
Goshawk	<i>Accipiter gentilis</i>	4
Grasshopper warbler	<i>Locustella naevia</i>	119
Great northern diver	<i>Gavia immer</i>	33
Green sandpiper	<i>Tringa ochropus</i>	732
Greenshank	<i>Tringa nebularia</i>	192
Grey partridge	<i>Perdix perdix</i>	794
Greylag goose	<i>Anser anser</i>	2061
Hawfinch	<i>Coccothraustes coccothraustes</i>	5

Table 10 - Protected and notable invertebrates for which records have been identified within 2km

Species common name	Species Latin name	No. of records	Legal / Conservation Status⁴⁷
White-clawed crayfish	<i>Austropotamobius pallipes</i>	2	2005-2007
Crucifix ground beetle	<i>Panagaeus cruxmajor</i>	2	2011
Hazel pot beetle	<i>Cryptocephalus coryli</i>	36	2000-2013
Small heath	<i>Coenonympha pamphilus</i>	342	1922-2015
Wall	<i>Lasiommata megera</i>	371	1898-2016
White admiral	<i>Limenitis Camilla</i>	11	1950-2014
White-letter hairstreak	<i>Satyrrium w-album</i>	8	1894-2010
Five-banded weevil-wasp	<i>Cerceris quinquefasciata</i>	1	2011
Autumnal rustic	<i>Eugnorisma glareosa</i>	2	2011
Beaded chestnut	<i>Agrochola lychnidis</i>	39	1982-2011
Blood-vein	<i>Timandra comae</i>	61	1981-2014
Brindled beauty	<i>Lycia hirtaria</i>	8	1985-2011
Broom moth	<i>Ceramica pisi</i>	3	1982-2006
Brown-spot pinion	<i>Agrochola litura</i>	2	2006-2010
Buff ermine	<i>Spilosoma lutea</i>	148	1981-2014
Centre-barred sallow	<i>Atethmia centrago</i>	7	2007-2011

⁴⁷ HabReg = Conservation of Habitats and Species Regulations (2010), W&CA = Wildlife and Countryside Act (1981), NERC = Schedule 41 Natural Environment and Rural Communities Act (2006), LBAP = Local Biodiversity Action Plan, RD1 (UK) = UK Red Data Book listing based on IUCN guidelines, RD2 (UK) = UK Red Data Book listing not based on IUCN guidelines (Nationally Rare and Scarce).

Cinnabar	<i>Tyria jacobaeae</i>	172	1977-2016
Crescent	<i>Helotropha leucostigma</i>	2	2010
Dark spinach	<i>Pelurga comitata</i>	5	2011
Dark-barred twin-spot carpet	<i>Xanthorhoe ferrugata</i>	49	1982-2011
Deep brown dart	<i>Aporophyla lutulenta</i>	2	2003
Dot moth	<i>Melanchra pericariae</i>	52	1981-2013
Double dart	<i>Graphiphora augur</i>	9	1982-2006
Dusky brocade	<i>Apamea remissa</i>	28	1984-2011
Dusky thorn	<i>Ennomos fuscantaria</i>	2	1981-2002
Flounced chestnut	<i>Agrochola helvola</i>	1	2011
Forester	<i>Adscita statures</i>	3	1981-2017
Garden tiger	<i>Arctia caja</i>	9	1982-2009
Ghost moth	<i>Hepialus humuli</i>	16	1982-2017
Green-brindled crescent	<i>Allophyes oxyacanthae</i>	41	1982-2011
Grey dagger	<i>Acronicta psi</i>	25	1982-2010
Knot grass	<i>Acronicta rumicis</i>	32	1971-2010
Lackey	<i>Malacosoma Neustria</i>	8	1982-2002
Large nutmeg	<i>Apamea anceps</i>	3	2004-2011
Large wainscot	<i>Rhizedra lutosa</i>	23	2003-2011
Latticed heath	<i>Chiasmia clathrata</i>	25	2002-2013
Minor shoulder-knot	<i>Brachylomia viminalis</i>	1	2003
Mottled rustic	<i>Caradrina Morpheus</i>	107	1979-2013
Mouse moth	<i>Amphipyra tragopoginis</i>	48	1982-2011

Oak hook-tip	<i>Watsonalla binaria</i>	7	2001-2011
Pale eggar	<i>Trichiura crataegi</i>	7	1981-2006
Powdered quaker	<i>Orthosia gracilis</i>	7	2010-2011
Rosy minor	<i>Litoligia literosa</i>	7	2003-2009
Rosy rustic	<i>Hydraecia micacea</i>	54	2002-2011
Rustic	<i>Hoplodrina blanda</i>	96	2001-2013
Sallow	<i>Cirrhia icteritia</i>	49	1985-2011
September thorn	<i>Ennomos erosaria</i>	11	1986-2011
Shaded broad-bar	<i>Scotopteryx chenopodiata</i>	75	1993-2017
Shoulder-striped wainscot	<i>Leucania comma</i>	23	1994-2013
Small phoenix	<i>Ecliptopera silaceata</i>	52	1982-2011
Small square-spot	<i>Diasia rubi</i>	26	1981-2012
Spinach	<i>Eulithis mellinata</i>	7	1981-2004
Sprawker	<i>Asteroscopus sphinx</i>	9	2003-2012
Streak	<i>Chesias legatella</i>	7	1998-2005
White ermine	<i>Spilosoma lubricipeda</i>	74	1981-2013

Appendix C



TARGET NOTES

- 1: Pond A, located to east of Game Keeper pub (Photograph 8).
- 2: Pond B, located to the south-east of Hykeham Roundabout (Photograph 9).
- 3: Small area of poor semi-improved grassland with scattered scrub (Photograph 5).
- 4: proposed scheme el crossing Wath Lane; location of some large oak trees (Photograph 15).
- 5: Poor semi-improved grassland occurring along an embankment running parallel with a drain running into the River Witham (Photograph 6).
- 6: Small block of broad-leaved plantation woodland dominated by field maple (Photograph 3).
- 7: Field drain running parallel with western bank of River Witham (Photograph 14).
- 8: Location of fresh otter spraint on a concrete mooring platform, west of River Witham (Photograph 18).
- 9: Location of barn owl box with fresh owl pellets beneath (Photograph 19).
- 10: Narrow wedge of poor semi-improved grassland with boundary hedge and trees (Photograph 7).
- 11: Small block of semi-natural broad-leaved woodland behind houses along Station Road.
- 12: Small block of semi-natural broad-leaved woodland surrounding Ponds C 1 and C2.

Appendix D



PHOTOGRAPHS

Table 11 - Photographs



Photo 1: Edge of Danker Wood



Photo 2: New Zealand pigmyweed in Pond C2



Photo 3: Field maple dominated woodland at TN6



Photo 4: Improved grassland & shelters at Wath Lane



Photo 5: Poor SI grassland and scrub at TN3



Photo 6: Poor SI grassland at TN5



Photo 7: Poor SI grassland at TN10



Photo 8: Pond A at TN1



Photo 9: Pond B at TN2

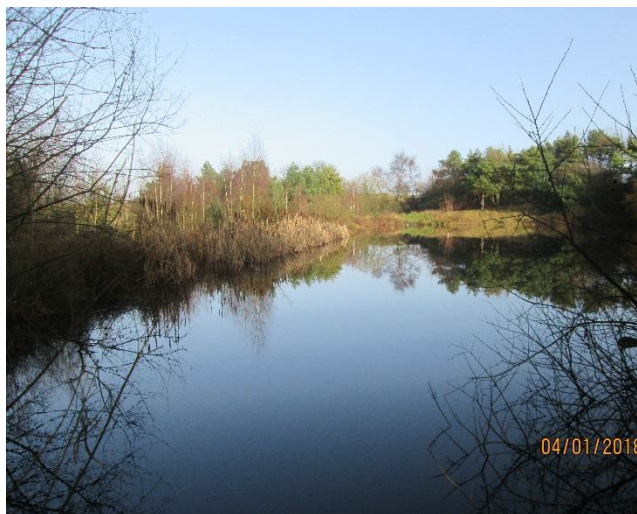


Photo 10: Pond C1 at TN12



Photo 11: Pond C2 at TN12



Photo 12: Recently cleared and re-profiled drain with adjacent recently flailed hedge



Photo 13: River Witham, facing west



Photo 14: Drain to west of and parallel with River Witham



Photo 15: Large oak trees along Wath Lane

Photo 16: Large ash trees along Somerton Gate Lane