



Ashfield Land Management and Gazeley GLP Northampton s.à.r.l

Annex A: Background Data Search Report (Part 2 - Junction 15a)

Rail Central

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RSK GENERAL NOTES

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Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

This work has been undertaken in accordance with the quality management system of RSK Environment Ltd.

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1 METHODS

Background Data Search

A search was made in January 2018 for reference materials relating to the ecology of the study area (*Figure A1*), and a list of sources is given in *Table A1*.

Table A1: Data Sources

Information Obtained	Available From
Protected and Noteworthy species-records	Northamptonshire Biodiversity Records Centre
Designated site locations and citations	Natural England website
Designated site locations and citations	Northamptonshire Biodiversity Records Centre
Designations and legal protection of noteworthy species	Joint Nature Conservation Committee (JNCC) website
Details of species and habitats listed on the LBAP	Local BAP website

A search was made for information on International statutory designated sites, important globally for ecology within 10 km of the site boundary. National statutory designated sites that are important nationally were searched for within 5 km of the site boundary and non-statutory designated sites, often important in a local context, were searched for within 2 km of the site boundary. A search was made for records of noteworthy species within the same 2 km area extending to 5 km for Bats. Species included in the search parameters were:

- European protected species (listed on *Schedules 2 and 4 of The Conservation of Habitats and Species (Amendment) Regulations 2012*);
- Nationally protected species under *Schedules 1, 5 and 8 of The Wildlife & Countryside Act 1981* and *The Protection of Badgers Act 1992*;
- Species listed as Critically Endangered, Endangered or Vulnerable on the *IUCN 2001 Red List*
- All species listed on the RSPB *Birds of Conservation Concern 4* as Red or Amber;
- Species listed on *The Convention for the Protection of the Marine Environment of the North-East Atlantic* (the OSPAR Convention);
- Nationally Rare or Nationally Scarce species;
- Notable invertebrates; and
- Species of Principal Importance under *The Natural Environment and Rural Communities (NERC) Act (2006)* or Priority Species under the Local Biodiversity Action Plan.

2 RESULTS

Background Data Search

Biodiversity Action Plans

Habitats that might qualify as Habitats of Principal importance (Habitats of Principal Importance) under *The Natural Environment and Rural Communities (NERC) Act (2006)* are Hedgerows, Arable Field Margins, and Rivers and Ponds.

The latest Northamptonshire local biodiversity action plan (LBAP) lists 16 Habitat Action Plans (HAPs) and two Species Action Plans (SAPs). The local HAPs and SAPs that are relevant to the proposed development are;

Habitats:

- Arable field margins
- Eutrophic standing waters
- Floodplain grazing marsh
- Hedgerows
- Lowland calcareous grassland
- Lowland dry acid grassland
- Lowland fen
- Lowland heathland
- Lowland meadow
- Lowland mixed deciduous woodland
- Open mosaic habitats on previously developed land
- Ponds
- Reedbed
- Rivers
- Traditional orchards
- Wet woodland
- Wood-pasture and parkland

Species

- *Physcia clementii* (a Lichen)
- Barn Owl
- Black Hairstreak
- Black Poplar
- Plot's Elm
- Lime Bark Beetle
- Nightingale

Designated Sites

Statutory Sites

There are 2 international statutory designated sites within 10km of the site boundary, comprising 1 RAMSAR and 1 Special Protection Area (SPA). There are also 6 national statutory designated sites within 5 km of the site boundary, comprising 2 Sites of Special Scientific Interest (SSSI) and 4 Local Nature Reserves (LNR). These sites are shown on *Figure A2.2* and are listed in *Table A2* in order of proximity to the site; short descriptions (when available) are given for the sites within 2km of the site boundary.

Table A2: Statutory Designated Sites

Site Name	Designation	Approximate Distance (m)
Storton's Pits	LNR	2080
Blisworth Rectory Farm Quarry	SSSI	3130
Road Cutting	SSSI	3520
Tiffield Pocket Park	LNR	3560
Barnes Meadow	LNR	4180
Kingsthorpe	LNR	4760
Upper Nene Valley Gravel Pits	RAMSAR & SPA	5740

SSSI Impact Risk Zones

There are several SSSIs in the wider area. The site intersects SSSI Impact Risk Zones for these sites. Natural England will need to be consulted if the proposed works meets any of the following criteria.

- Airports, helipads and other aviation proposals.
- Solar schemes with footprint > 0.5ha, all wind turbines.
- Pig & poultry units, slurry lagoons > 4000m³.
- General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.
- Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill.
- Any discharge of water or liquid waste that is more than 20m³/day. The water needs to either be discharged to ground (ie to seep away) or to surface water, such as a beck or stream. Discharges to mains sewer are excluded.

Non-statutory Sites

There are 39 non-statutory designated sites within 2 km of the site boundary, comprising 15 Local Wildlife Sites (LWS) two of which are also designated as Local Geological Site (LGS) and 24 Potential Wildlife Sites (pWS). They are listed in *Table A3* in order of proximity to the site; short descriptions are given for the sites within 1km

of the site boundary. Some areas identified as potential wildlife sites have not been assessed by the designating authority and therefore full descriptions are unavailable.

Table A3: Non-Statutory Designated Sites

Site Name	Designation	Approximate Distance (m)
Grand Union Canal - Northampton Arm	LWS	On site
This narrow arm of the Grand Union connects the main Grand Union Canal with the River Nene via Northampton City. Despite its usefulness as a through fare the locks are neglected and frequently stopped and the waterway at the city end has litter hazards and rampant aquatic vegetation; on the whole it seems the waterway is not used.		
239	pWS	On Site
No description available for this potential wildlife site. The site is located south of the M1 and West of the A43. Aerial imagery suggests that the area consists of woodland or scrub and an area of grassland which is also adjacent to the Grand Union Canal so it may also be marshy.		
250	pWS	10
No description available for this potential wildlife site. The site is located southwest of the proposed development area. Aerial imagery shows a small area of woodland.		
249	pWS	230
No description available for this potential wildlife site. The site is located southwest of the proposed development area. Aerial imagery shows a grassland field.		
Shelfleys Lake	LWS	350
A lake on the edge of Northampton with a wide marginal fringe of wetland vegetation. This site qualifies as a Wildlife Site with 11 wetland indicators recorded and supports a range of invertebrates.		
248	pWS	530
No description available for this potential wildlife site. The site is located southwest of the proposed development area. Aerial imagery shows a grassland field.		
Hunsbury Hill Country Park	LWS / LGS	550
The site originally qualified as an LWS under the woodland criteria. The grassland also provide a useful habitat alongside the woodland.		
Swan Valley Meadow	pWS	590
The site is situated between a brook and the Northampton arm of the Grand Union canal. In the south of the site is a lake with a small island. A brief view of the lake produced 9 species from the Fen, Swamp and Marsh indicator species list.		
Wootton Railway Embankments	LWS	860
The west side of this high embankment is now beginning to scrub over, but there is still a fair area of grassland present, especially in the central part of the site. This is an unusual grassland for the area as it appears to be on a slightly acid, Northampton Sand substrate.		
Hunsbury Hill Spinney	pWS	1030
238	pWS	1060

Site Name	Designation	Approximate Distance (m)
Banbury Lane Meadow	pWS	1060
Hunsbury Hill Cutting	LWS / LGS	1080
Land adjacent to Wootton Railway Embankment	pWS	1090
241	pWS	1230
Grange Wood (Penn Valley)	pWS	1250
Collingtree Golf Course	LWS	1260
Duston Mill Fields South	pWS	1280
Upton East Field	LWS	1290
Hill Farm Quarry East	pWS	1350
246	pWS	1380
Upton Mill South Lake	LWS	1420
240	pWS	1420
Gayton Reserve Lake	LWS	1450
Gayton Meadow	pWS	1460
Camp Lane & Drain	LWS	1530
Duston West Meadow	LWS	1600
Duston Mill Fields	pWS	1650
Duston West Wood	pWS	1670
242	pWS	1760
Upton Mill Dyke	LWS	1790
244	pWS	1790
Upton Mill North Lake	LWS	1810
243	pWS	1910
Upton Pasture East	pWS	1940
Duston Gravel Pit	LWS	1960
Duston Flood Channel	pWS	1970
247	pWS	1990
Bottom Spinney	LWS	1990

Other Notable Sites

There are no areas of ancient woodland within 2k of the site boundary.

Protected and Noteworthy Species

At least 170 protected or noteworthy species are recorded from places within 2 km of the site boundary, extending to 5km for bats. Of these, 2 are amphibians, 35 are birds, 1 is a crustacean, 1 is a fish, 63 are invertebrates, 14 are mammals (of these 9 are bats), 53 are plants and 1 is a reptile. Species that are protected by law under *Schedules 2 and 5 of The Conservation of Habitats and Species (Amendment)*

Regulations 2012, Schedules 2, 5 and 8 of The Wildlife and Countryside Act 1981 or The Protection of Badgers Act 1992 and have been recorded in the search area are listed in the Table A4 below (excluding species protected only against collection for sale); a full species list is given in Appendix 1.

Table A4: Protected Species Records

Latin Name	Common Name	Designation	Within 100m	Within 2km	Within 5km (Bats only)
Amphibians					
<i>Triturus cristatus</i>	Great Crested Newt	EPS (Sch2), WCA5		☒	
Birds					
<i>Alcedo atthis</i>	Kingfisher	WCA1.1	P	☒	
<i>Anas querquedula</i>	Garganey	WCA1.1		☒	
<i>Anser anser</i>	Greylag Goose	WCA1.2		☒	
<i>Falco columbarius</i>	Merlin	WCA1.1		☒	
<i>Falco subbuteo</i>	Hobby	WCA1.1	P	☒	
<i>Tyto alba</i>	Barn Owl	WCA1.1		☒	
Crustacean					
<i>Austropotamobius pallipes</i>	White-clawed Crayfish	WCA5	☒	☒	
Mammals					
<i>Arvicola amphibius</i>	European Water Vole	WCA5	☒	☒	
<i>Lutra lutra</i>	European Otter	EPS (Sch2), WCA5		☒	
<i>Meles meles</i>	Badger	BA		☒	
<i>Myotis daubentonii</i>	Daubenton's Bat	EPS (Sch2), WCA5		☒	☒
<i>Myotis mystacinus</i>	Whiskered Bat	EPS (Sch2), WCA5			☒
<i>Myotis mystacinus / brandti</i>	Whiskered/Brandt's Bat	EPS (Sch2), WCA5		☒	☒
<i>Myotis nattereri</i>	Natterer's Bat	EPS (Sch2), WCA5		☒	☒
<i>Nyctalus noctula</i>	Noctule Bat	EPS (Sch2), WCA5		P	☒
<i>Pipistrellus pipistrellus</i>	Common Pipistrelle	EPS (Sch2), WCA5		P	☒
<i>Pipistrellus pygmaeus</i>	Soprano Pipistrelle	EPS (Sch2), WCA5		☒	☒
<i>Pipistrellus sp.</i>	Pipistrelle Bat Species	EPS (Sch2), WCA5	P	☒	☒
<i>Plecotus auritus</i>	Brown Long-eared Bat	EPS (Sch2), WCA5		☒	☒
Plants					
<i>Lactuca saligna</i>	Least Lettuce	WCA8		P	
Reptiles					
<i>Natrix natrix</i>	Grass Snake	WCA5	P	☒	

Note - P relates to records with 4 figure or tetrad grid references that could potentially be anywhere within a 1 km or 2 km square.

APPENDIX A – NOTEWORTHY SPECIES RECORDS

Table A5 lists all protected and noteworthy species records within the 2km search area, extending to 5 km for bats. The Latin and common names for species are given as well as their level of designation. A glossary defining abbreviations used in the table is given in Table A6, Appendix B. If a species is not included in the table below it does not necessarily mean the species is absent from the search area, but rather that data-holding organizations do not have records of it in these locations.

Table A5: All Protected and noteworthy Species Records:

Latin Name	Common Name	Designation
Amphibians		
<i>Bufo bufo</i>	Common Toad	WCA5, S41
<i>Triturus cristatus</i>	Great Crested Newt	EPS(Sch2), WCA5, S41
Birds		
<i>Acanthis flammea</i>	Common (Mealy) Redpoll	Amber
<i>Actitis hypoleucos</i>	Common Sandpiper	Amber
<i>Alcedo atthis</i>	Kingfisher	WCA1.1, Amber
<i>Anas clypeata</i>	Shoveler	Amber
<i>Anas crecca</i>	Teal	Amber
<i>Anas platyrhynchos</i>	Mallard	Amber
<i>Anas querquedula</i>	Garganey	WCA1.1, Amber
<i>Anas strepera</i>	Gadwall	Amber
<i>Anser anser</i>	Greylag Goose	WCA1.2, Amber
<i>Aythya ferina</i>	Pochard	Red
<i>Chroicocephalus ridibundus</i>	Black-headed Gull	Amber
<i>Columba oenas</i>	Stock Dove	Amber
<i>Cuculus canorus</i>	Cuckoo	S41, Red
<i>Cygnus olor</i>	Mute Swan	Amber
<i>Emberiza citrinella</i>	Yellowhammer	S41, Red
<i>Emberiza schoeniclus</i>	Reed Bunting	S41, Amber
<i>Falco columbarius</i>	Merlin	WCA1.1, Red
<i>Falco subbuteo</i>	Hobby	WCA1.1
<i>Falco tinnunculus</i>	Kestrel	Amber
<i>Motacilla cinerea</i>	Grey Wagtail	Red
<i>Motacilla flava</i>	Yellow Wagtail	S41, Red
<i>Motacilla flava subsp. thunbergi</i>	Grey-headed Wagtail	S41, Red
<i>Passer domesticus</i>	House Sparrow	S41, Red
<i>Passer montanus</i>	Tree Sparrow	S41, Red
<i>Perdix perdix</i>	Grey Partridge	S41, Red
<i>Phylloscopus trochilus</i>	Willow Warbler	Amber
<i>Prunella modularis</i>	Dunnock	S41, Amber

Latin Name	Common Name	Designation
<i>Pyrrhula pyrrhula</i>	Bullfinch	S41, Amber
<i>Sterna hirundo</i>	Common Tern	Amber
<i>Streptopelia turtur</i>	Turtle Dove	S41, Red
<i>Sturnus vulgaris</i>	Starling	S41, Red
<i>Tringa totanus</i>	Redshank	Amber
<i>Turdus philomelos</i>	Song Thrush	S41, Red
<i>Tyto alba</i>	Barn Owl	WCA1.1, Amber
<i>Vanellus vanellus</i>	Lapwing	S41, Red
Crustacean		
<i>Austropotamobius pallipes</i>	White-clawed Crayfish	WCA5, S41
Fish		
<i>Anguilla anguilla</i>	European Eel	S41, OSPAR
Invertebrates		
<i>Abraxas sylvata</i>	Clouded Magpie	Locally Notable
<i>Acronicta psi</i>	Grey Dagger	S41
<i>Acronicta rumicis</i>	Knot Grass	S41
<i>Agrotis cinerea</i>	Light Feathered Rustic	Locally Notable
<i>Amphipyra tragopoginis</i>	Mouse Moth	S41
<i>Angerona prunaria</i>	Orange Moth	Locally Notable
<i>Apamea anceps</i>	Large Nutmeg	S41
<i>Apamea remissa</i>	Dusky Brocade	S41
<i>Apoda limacodes</i>	Festoon	Locally Notable
<i>Aporophyla lutulenta</i>	Deep-brown Dart	S41
<i>Atethmia centrargo</i>	Centre-barred Sallow	S41
<i>Atolmis rubricollis</i>	Red-necked Footman	Locally Notable
<i>Boudinotiana notha</i>	Light Orange Underwing	Locally Notable
<i>Caradrina morpheus</i>	Mottled Rustic	S41
<i>Celaena leucostigma</i>	Crescent	S41
<i>Ceramica pisi</i>	Broom Moth	S41
<i>Chesias legatella</i>	Streak	S41
<i>Cirrhia gilvago</i>	Dusky-lemon Sallow	S41
<i>Cirrhia icteritia</i>	Sallow	S41
<i>Coenonympha pamphilus</i>	Small Heath	S41
<i>Colostygia multistrigaria</i>	Mottled Grey	Locally Notable
<i>Cucullia absinthii</i>	Wormwood	Locally Notable
<i>Diarsia rubi</i>	Small Square-spot	S41
<i>Eilema sororcula</i>	Orange Footman	Locally Notable
<i>Ennomos erosaria</i>	September Thorn	S41
<i>Ennomos fuscantaria</i>	Dusky Thorn	S41
<i>Ennomos quercinaria</i>	August Thorn	S41
<i>Eulithis mellinata</i>	Spinach	S41
<i>Eupithecia insigniata</i>	Pinion-spotted Pug	Locally Notable
<i>Eupithecia valerianata</i>	Valerian Pug	Locally Notable
<i>Eupithecia venosata</i>	Netted Pug	Locally Notable
<i>Euxoa nigricans</i>	Garden Dart	S41

Latin Name	Common Name	Designation
<i>Gyrinus aeratus</i>	Gyrinus aeratus	NS
<i>Heliophobus reticulata</i>	Bordered Gothic	S41
<i>Hemistola chrysoprasaria</i>	Small Emerald	S41
<i>Heterogenea asella</i>	Triangle	Locally Notable
<i>Hydraecia micacea</i>	Rosy Rustic	S41
<i>Hydria cervinalis</i>	Scarce Tissue	Locally Notable
<i>Lasiommata megera</i>	Wall	S41
<i>Leptidea sinapis</i>	Wood White	WCA5, S41, GB RDB(EN)
<i>Litoligia literosa</i>	Rosy Minor	S41
<i>Macaria wauaria</i>	V-Moth	S41
<i>Melanchra persicariae</i>	Dot Moth	S41
<i>Microvelia (Microvelia) pygmaea</i>	Microvelia (Microvelia) pygmaea	Notable:B
<i>Mniotype adusta</i>	Dark Brocade	S41
<i>Mythimna pudorina</i>	Striped Wainscot	Locally Notable
<i>Nyctobrya muralis</i>	Marbled Green	Locally Notable
<i>Orgyia recens</i>	Scarce Vapourer	S41
<i>Orthosia opima</i>	Northern Drab	Locally Notable
<i>Pelurga comitata</i>	Dark Spinach	S41
<i>Perconia strigillaria</i>	Grass Wave	Locally Notable
<i>Photodes fluxa</i>	Mere Wainscot	Locally Notable
<i>Phyllonorycter joannisi</i>	White-bodied Midget	Locally Notable
<i>Plagodis pulveraria</i>	Barred Umber	Locally Notable
<i>Polia bombycina</i>	Pale Shining Brown	S41
<i>Rhizedra lutosa</i>	Large Wainscot	S41
<i>Satyrium pruni</i>	Black Hairstreak	WCA5, GB RDB(EN)
<i>Scotopteryx chenopodiata</i>	Shaded Broad-bar	S41
<i>Spaelotis raveda</i>	Stout Dart	Locally Notable
<i>Synanthedon myopaeformis</i>	Red-belted Clearwing	Locally Notable
<i>Thera juniperata</i>	Juniper Carpet	Locally Notable
<i>Trichopteryx polycommata</i>	Barred Tooth-striped	S41
<i>Tyria jacobaeae</i>	Cinnabar	S41
Mammals		
<i>Arvicola amphibius</i>	European Water Vole	WCA5, S41
<i>Erinaceus europaeus</i>	West European Hedgehog	S41
<i>Lepus europaeus</i>	Brown Hare	S41
<i>Lutra lutra</i>	European Otter	EPS(Sch2), WCA5, S41
<i>Meles meles</i>	Eurasian Badger	BA
<i>Myotis daubentonii</i>	Daubenton's Bat	EPS (Sch2), WCA5
<i>Myotis mystacinus</i>	Whiskered Bat	EPS (Sch2), WCA5
<i>Myotis mystacinus / brandti</i>	Whiskered/Brandt's Bat	EPS (Sch2), WCA5
<i>Myotis nattereri</i>	Natterer's Bat	EPS (Sch2), WCA5
<i>Nyctalus noctula</i>	Noctule Bat	EPS (Sch2), WCA5
<i>Pipistrellus pipistrellus</i>	Common Pipistrelle	EPS (Sch2), WCA5
<i>Pipistrellus pygmaeus</i>	Soprano Pipistrelle	EPS (Sch2), WCA5
<i>Pipistrellus sp.</i>	Pipistrelle Bat Species	EPS (Sch2), WCA5
<i>Plecotus auritus</i>	Brown Long-eared Bat	EPS (Sch2), WCA5

Latin Name	Common Name	Designation
Plants, Trees, Moss and Lichens		
<i>Agrostis vinealis</i>	Brown Bent	Locally Notable
<i>Aira praecox</i>	Early Hair-grass	Locally Notable
<i>Aquilegia vulgaris</i>	Columbine	Locally Notable
<i>Briza media</i>	Quaking-grass	Locally Notable
<i>Bromus racemosus</i>	Smooth Brome	Locally Notable
<i>Campanula rotundifolia</i>	Harebell	Locally Notable
<i>Carex pulicaris</i>	Flea Sedge	Locally Notable
<i>Carex rostrata</i>	Bottle Sedge	Locally Notable
<i>Carlina vulgaris</i>	Carlina Thistle	Locally Notable
<i>Ceratodon conicus</i>	Scarce Redshank	S41, GB RDB(CR), NR
<i>Chenopodium bonus-henricus</i>	Good-King-Henry	GB RDB(VU), ENG BSBI RDB(VU)
<i>Cichorium intybus</i>	Chicory	ENG BSBI RDB(VU)
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	Locally Notable
<i>Equisetum sylvaticum</i>	Wood Horsetail	Locally Notable
<i>Filago vulgaris</i>	Common Cudweed	Locally Notable
<i>Fragaria vesca</i>	Wild Strawberry	Locally Notable
<i>Glebionis segetum</i>	Corn Marigold	GB RDB(VU), ENG BSBI RDB(VU)
<i>Hyacinthoides non-scripta</i>	Bluebell	WCA8
<i>Juncus compressus</i>	Round-fruited Rush	ENG BSBI RDB(VU)
<i>Knautia arvensis</i>	Field Scabious	Locally Notable
<i>Lactuca saligna</i>	Least Lettuce	WCA8, S41, GB RDB(EN), ENG BSBI RDB(EN), NR
<i>Lathyrus linifolius</i>	Bitter-vetch	Locally Notable
<i>Mentha arvensis</i>	Corn Mint	Locally Notable
<i>Menyanthes trifoliata</i>	Bogbean	Locally Notable
<i>Myriophyllum verticillatum</i>	Whorled Water-milfoil	GB RDB(VU)
<i>Narcissus pseudonarcissus</i> subsp. <i>pseudonarcissus</i>	Daffodil	Locally Notable
<i>Nitellopsis obtusa</i>	Starry Stonewort	S41, GB RDB(VU)
<i>Oenanthe fistulosa</i>	Tubular Water-dropwort	S41, GB RDB(VU), ENG BSBI RDB(VU)
<i>Ononis spinosa</i>	Spiny Restharrow	Locally Notable
<i>Oxalis acetosella</i>	Wood-sorrel	Locally Notable
<i>Papaver argemone</i>	Prickly Poppy	GB RDB(VU), ENG BSBI RDB(EN)
<i>Pinus sylvestris</i>	Scots Pine	NS
<i>Plantago media</i>	Hoary Plantain	Locally Notable
<i>Poa humilis</i>	Spreading Meadow-grass	Locally Notable
<i>Potamogeton compressus</i>	Grass-wrack Pondweed	S41, GB RDB(EN), ENG BSBI RDB(EN), NS
<i>Potamogeton friesii</i>	Flat-stalked Pondweed	ENG BSBI RDB(VU), NS
<i>Potamogeton praelongus</i>	Long-stalked Pondweed	ENG BSBI RDB(EN)
<i>Potentilla erecta</i>	Tormentil	Locally Notable
<i>Pterygoneurum lamellatum</i>	Spiral Chalk-moss	NR

Latin Name	Common Name	Designation
<i>Ranunculus flammula</i>	Lesser Spearwort	ENG BSBI RDB(VU)
<i>Ranunculus peltatus</i>	Pond Water-crowfoot	Locally Notable
<i>Sagina nodosa</i>	Knotted Pearlwort	ENG BSBI RDB(VU)
<i>Sanicula europaea</i>	Sanicle	Locally Notable
<i>Sedum telephium</i>	Orpine	Locally Notable
<i>Senecio aquaticus</i>	Marsh Ragwort	Locally Notable
<i>Silene noctiflora</i>	Night-flowering Catchfly	GB RDB(VU), ENG BSBI RDB(VU)
<i>Spergula arvensis</i>	Corn Spurrey	GB RDB(VU), ENG BSBI RDB(VU)
<i>Spergularia rubra</i>	Sand Spurrey	Locally Notable
<i>Umbilicus rupestris</i>	Navelwort	Locally Notable
<i>Valeriana dioica</i>	Marsh Valerian	Locally Notable
<i>Valeriana officinalis</i>	Common Valerian	Locally Notable
<i>Verbascum lychnitis</i>	White Mullein	NS
<i>Veronica officinalis</i>	Heath Speedwell	Locally Notable
Reptiles		
<i>Natrix natrix</i>	Grass Snake	WCA5, S41

APPENDIX B – ABBREVIATIONS

Table A6 displays abbreviations of protected species legislation.

Table A6: Glossary of Abbreviations Used in this Report:

Code	Full Title	Explanation
Amber	Amber list	Amber listed species have a population status in the UK of medium conservation concern.
BA	The Protection of Badgers Act 1992	Legislation making it an offence to kill, injure or take a Badger, or to damage or interfere with a sett unless a licence is obtained from a statutory authority.
BAP	Biodiversity Action Plan	A plan that identifies threats to significantly important species and habitats, and sets out targets and actions to enhance or maintain biodiversity.
DA	The Deer Act 1991	All wild deer with the exception of Muntjac (<i>Muntiacus reevesi</i>) and Chinese Water deer (<i>Hydropotes inermis</i>) are protected by a closed season.
EPS (Sch 2)	European Protected Species (Schedule 2)	Animals protected on <i>Schedule 2 of the Conservation (Natural Habitats &c.) Regulations 1994</i>
HAP	Habitat Action Plan	A plan that identifies threats to a priority habitat and sets out targets and actions to enhance or maintain that habitat.
IUCN	International Union for Conservation of Nature and Natural Resources (also known as The World Conservation Union)	A worldwide partnership and conservation network to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable.
LBAP	Local Biodiversity Action Plan	A plan that identifies threats to locally important species and habitats, and sets out targets and actions in Species Action Plans and Habitat Action Plans to enhance or maintain biodiversity at the county or regional level.
LHAP	Local Habitat Action Plan	A plan that identifies threats to a locally important priority habitat and sets out targets and actions to enhance or maintain that habitat.
LSAP	Local Species Action Plan	A plan that identifies threats to locally important species, and sets out targets and actions to

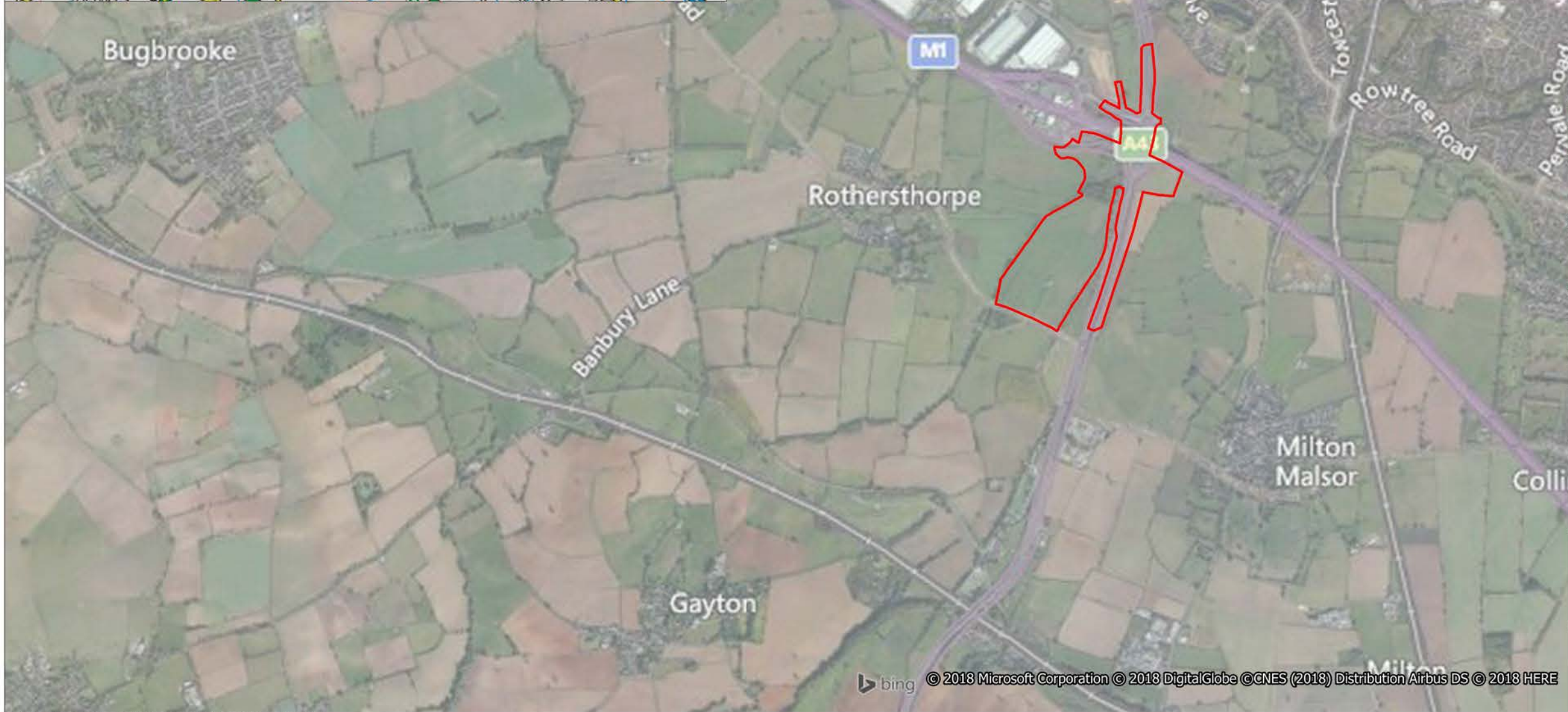
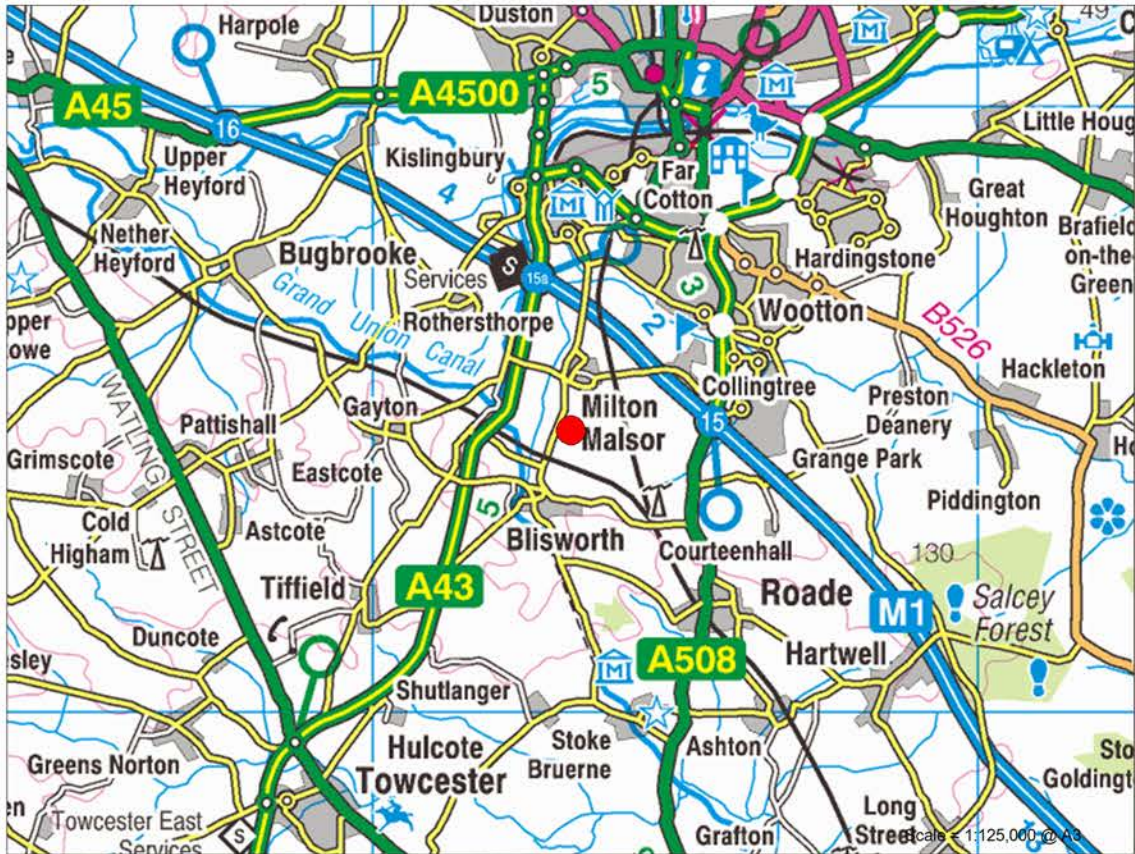
Code	Full Title	Explanation
		prevent losing that species from the local area.
Notable	Scarce and threatened invertebrates	Invertebrate species which are estimated to occur within the range of 16 to 100 10km squares but subdivision into Notable A and Notable B categories is not possible as there is insufficient information available).
Notable:A	Scarce and threatened invertebrates	Taxa which do not fall within Red Data Book categories but which are none-the-less uncommon in Great Britain and thought to occur in 30 or fewer 10km squares of the National Grid or, for less well-recorded groups, within seven or fewer vice-counties.
Notable: B	Scarce and threatened invertebrates	Taxa which do not fall within Red Data Book categories but which are none-the-less uncommon in Great Britain and thought to occur in between 31 and 100 10km squares of the National Grid or, for less-well recorded groups between eight and twenty vice-counties.
NN	Nationally Notable	Designation for invertebrate taxa that are thought to be notably important in the UK.
NR	Nationally Rare	Species in 15 or fewer hectads in Great Britain.
NS	National Scarce	Species in 16-100 hectads in Great Britain.
Red	Red List	Red listed species have a population status in the UK with high conservation concern.
RDB	Red Data Book Species	Species identified in one of the UK Red Data books.
RDB(CR)	Critically Endangered	An IUCN Red List designation for species at an extremely high risk of extinction.
RDB(EN)	Endangered	An IUCN Red List designation for species at a very high risk of extinction.
RDB(VU)	Vulnerable	An IUCN Red List designation for species at high risk of extinction.
SAP	Species Action Plan	A plan that identifies threats to significantly important species, and sets out targets and actions to prevent losing that species to extinction.
UKBAP	UK Biodiversity Action Plan	A plan that identifies threats to locally important species and habitats, and sets out targets and actions in Species Action Plans and Habitat Action Plans to enhance or maintain biodiversity in the UK.
UKSAP	UK Species Action Plan	A plan that identifies threats to nationally important species, and sets out targets and actions to prevent the decline or extinction of the species in the UK.
WCA	<i>The Wildlife and Countryside Act 1981</i>	Containing 4 Parts and 17 Schedules, the Act covers protection of wildlife (birds, and some

Code	Full Title	Explanation
	(as amended)	animals and plants), the countryside, National Parks, and the designation of protected areas, and public rights of way. All wild plants in Britain are protected from intentional uprooting by an unauthorized person, but land owners, land occupiers, persons authorized by either of these or persons authorized in writing by the Local Authority for the area are exempt. Protection for some species may be limited to certain Sections of the Act (e.g. S13(2)).
WCA1	Schedule 1 of <i>The Wildlife and Countryside Act 1981</i> (as amended)	<p>This Schedule lists birds protected by special penalties at all times, but virtually all wild birds have some protection in law.</p> <p>Acts which are prohibited for all wild birds (except derogated 'pest' species) include intentional killing, injuring or taking; taking, damaging or destroying nests in use or being built; taking or destroying eggs; possessing or having control of (with certain exceptions but including live for dead birds, parts or derivative); setting or permitting certain traps, weapons, decoys or poisons. Selling, offering or exposing for sale, possessing or transporting for sale any live wild bird, egg or part of an egg or advertising any of these for sale, or dead wild bird including parts or derivatives are also prohibited. Many birds must be formally registered and ringed if kept in captivity.</p> <p>Schedule I WCA birds are additionally protected from intentional or reckless disturbance while building a nest, or when such a bird is in, on or near a nest containing eggs or young, or intentional or reckless disturbance of dependent young.</p>
WCA5	Schedule 5 of <i>The Wildlife and Countryside Act 1981</i> (as amended)	Schedule 5 animals are protected from intentional killing, injuring or taking; possessing (including parts or derivatives); intentional or reckless damage, destruction or obstruction of any structure or place used for shelter or protection; selling, offering or exposing for sale, possessing or transporting for the purpose of sale (alive or dead, including parts or derivatives). Protection of some species is limited to certain Sections of the Act (e.g. S9(1), S9(4a), S9(4b), S9(5)).
WCA5.9.1	Section 9 (1) under Schedule 5 of <i>The Wildlife and Countryside Act 1981</i> (as amended)	Protection limited to intentional killing, injury or taking.
WCA5.9.4a	Section 9 (4a) under Schedule 5 of <i>The Wildlife and Countryside Act 1981</i> (as amended)	Protection limited to damaging, destroying, or obstructing access to, any structure or place used

Code	Full Title	Explanation
	<i>Wildlife and Countryside Act 1981</i> (as amended)	by the animal for shelter or protection.
WCA5.9.5	Section 9 (5) under Schedule 5 of <i>The Wildlife and Countryside Act 1981</i> (as amended)	Protection limited to selling, offering for sale, possessing or transporting for purpose of sale, or advertising for sale, any live or dead animal, or any part of, or anything derived from, such animal. Note that all cetaceans (whales and dolphins) and the Basking Shark (<i>Cetorhinus maximus</i>) are now protected from intentional or reckless disturbance.
WCA8	Schedule 8 of <i>The Wildlife and Countryside Act 1981</i> (as amended)	Plants and fungi protected from intentional picking, uprooting, destroying, trading (including parts or derivatives), etc.

APPENDIX C – FIGURES

Figure A1.2	Site Location Map
Figure A2.2	Designated Sites Plan



Site boundary (Jan 2018)

00	29.01.18	855950	SP	RG	RE
Rev	Date	Description	Drn	Chk	App

Rail Central

Figure A1.2

Junction 15a

Site Location Plan

0750

Metres

Scale = 1:25,000 @ A3

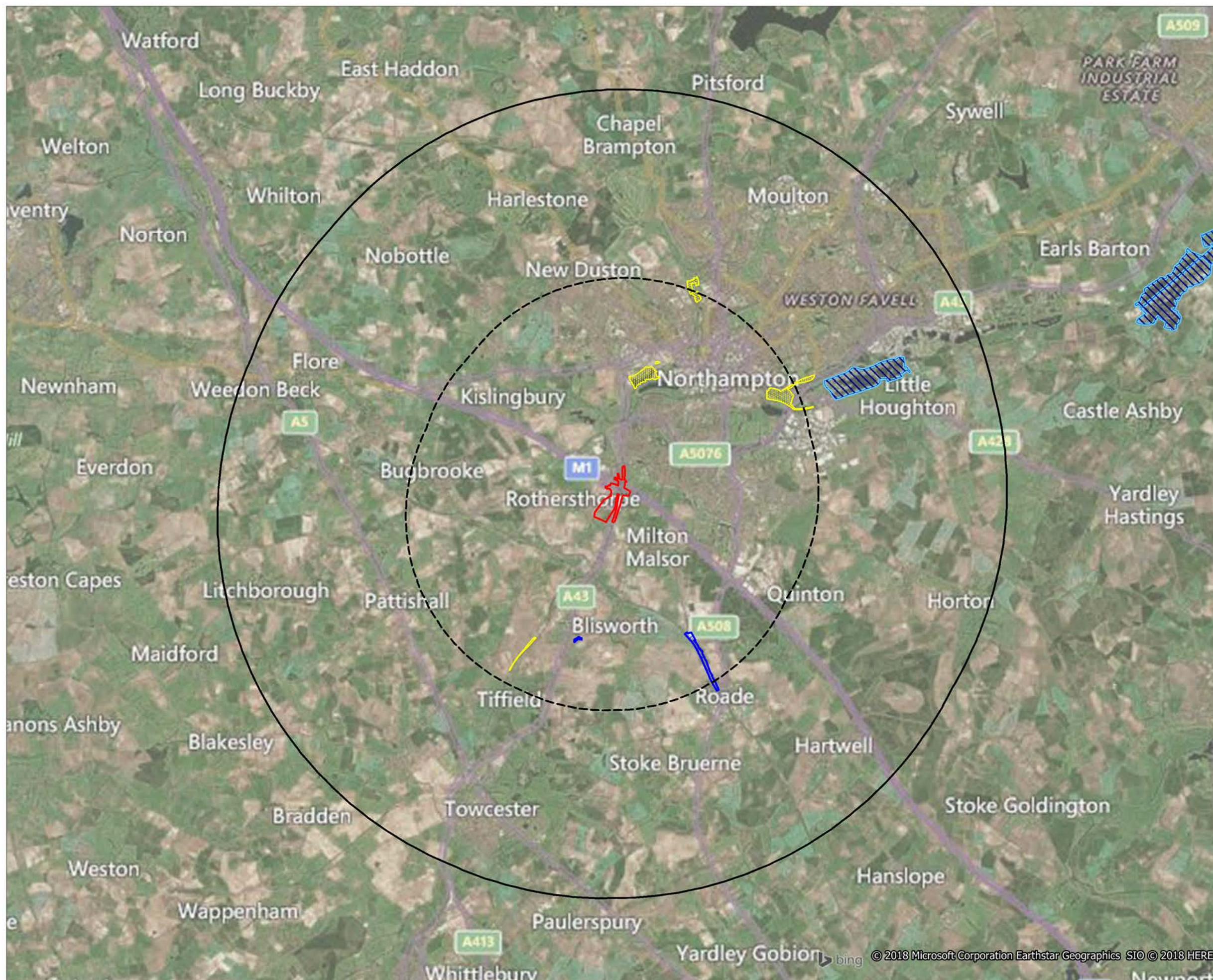
N

E

S

W

REV 00



Site boundary (Jan 2018)

10km buffer

5km buffer

RAMSAR

Special Protection Area

Site of Special Scientific Interest

Local Nature Reserve

00	29.01.18	855950	SP	RG	RE
Rev	Date	Description	Drn	Chk	App

Rail Central

Figure A2.2
Statutory Designated Sites

0

3

km

Scale = 1:100,000 @ A3

N

E

S

W

REV 00