

Elton Reservoir, Bury

GM Allocation 7

RESULTS OF DESKTOP STUDY AND SCOPE OF ECOLOGICAL SURVEY

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1.0 INTRODUCTION

- 1.1 ERAP (Consultant Ecologists) Ltd was commissioned by Peel Holding (Land and Property) Limited to carry out an ecological survey and assessment of the Greater Manchester Spatial Framework (GMSF) site at Elton Parkland, Bury / GM Allocation 7 (hereafter referred to as the 'site').
- 1.2 The site covers an area of approximately 248 hectares (2.48 km²) and occupies land between Bury and Radcliffe, Greater Manchester. The site is bound by the A58 (Bury and Bolton Road) to the north, the metrolink line and Bury Road to the east and residential development to the west. The Ordnance Survey (OS) grid reference at the centre of the site is SD 786 089.
- 1.3 The survey was requested in connection with proposals to promote the site within the Greater Manchester Spatial Framework (Greater Manchester Combined Authority, January 2019).
- 1.4 A desktop study was carried out in January 2017, prior to the commencement of a suite of relevant ecological surveys. The aim of this study is to aid the identification of potential ecological constraints to the proposals and inform the further ecological survey work; the further surveys will be required to inform the specification and scope of mitigation and enhancements necessary in accordance with wildlife legislation and planning policy.
- 1.5 This report presents ecological information available for the site and the local area, including data acquired from record centres and review of previous ecological survey work completed at the site.

2.0 METHOD OF SURVEY

- 2.1 The following sources of information and ecological records have been consulted:
 - a. MAGiC: A web-based interactive map which brings together geographic information on key environmental schemes and designations, including details of statutory nature conservation sites;
 - b. Greater Manchester Local Record Centre (GMLRC). Data was requested for a 2 kilometre radius of the site boundary;
 - c. The Greater Manchester Bird Recording Group;
 - d. The Greater Manchester Biodiversity Action Plan (GM BAP);
 - e. Previous ERAP Ltd reports for the ongoing Bellway Homes development at Spen Moor adjacent to the northern site boundary; and
 - f. Previous ERAP Ltd reports for the proposed residential development of a field at Brook Bottom Farm at the west boundary of the site.
- 2.2 As this stage this report does not take into consideration anecdotal wildlife sightings provided through the GMSF consultation process, unless the records were submitted and verified by the GMLRC prior to the request for data in January 2017.
- 2.3 All measurements within this report are approximate only, and have been either estimated whilst on site or calculated using mapping software (QGIS) or internet-based mapping services such as MAGiC and Google Earth.

3.0 DESKTOP STUDY RESULTS

3.1 Statutory Designations for Nature Conservation

- 3.1.1 The site does not hold any statutory designations for nature conservation, such as Special Areas of Conservation (SAC), Special Protection Areas (SPA) or Sites of Special Scientific Interest (SSSI).
- 3.1.2 The site lies within SSSI Impact Risk Zones for Ashclough SSSI, Nob End SSSI and Rochdale Canal SSSI.
- 3.1.3 Ashclough SSSI and Nob End SSSI lie approximately 3 kilometres and 4 kilometres south-west of the site respectively. At its closest point, the Rochdale Canal SSSI lies approximately 9 kilometres to the east of the site.
- 3.1.4 The SSSI Impact Risk Zone requires the Local Planning Authority to consult with Natural England on likely risks from the following development categories (Ordnance Survey, 2019):

Infrastructure:	Airports, helipads and other aviation proposal;
Minerals, Oil and Gas:	Planning applications for quarries, including: new proposals, Review of Minerals Permissions, extensions, variations to conditions etc. Oil and gas exploration/extraction;
Air pollution:	Livestock and poultry units with floorspace greater than 500m ² , slurry lagoons greater than 750m ² and manure stores greater than 3500 tonnes; and
Combustion:	General combustion processes greater than 50 megawatt energy input, including: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/combustion.

- 3.1.5 The use of the site for residential housing does not fall into any of the categories for which further consultation with Natural England is required in relation to statutory designated sites.

3.2 Non-statutory Designations for Nature Conservation

Non-statutory Sites within the Site Boundary

- 3.2.1 Seven Sites of Biological Importance (SBI) are located within the site boundary. A summary of the details of these sites, including their grade and qualifying features for their designation, is presented in **Table 3.1** below. Further details on the rationale for each site's designation (extracted from the citations) is also provided, below **Table 3.1**. Refer to **Figure 1** for the SBI locations.
- 3.2.2 Priority Species listed at being present within the SBIs are highlighted in **bold**.

Table 3.1: Sites of Biological Importance (SBI) within the Site

Site Name, Grade and Grid Reference	Qualifying Features						
	Large Areas of Standing Open Water	Ponds & Small Lodges	Reedbed, Swamp & Fen	Semi-natural Grassland	Birds	Amphibians	Aquatic Invertebrates
Elton Reservoir SBI Grade A SD 788 095				✓	✓		
Withins Reservoir SBI Grade B SD 784 087	✓		✓		✓		
Spenn Moor Ponds SBI Grade B SD 783 094		✓				✓	✓
Elton Goyt SBI Grade B SD 790 086				✓	✓		
Marl Pits at Black Lane SBI Grade A SD 781 084		✓				✓	
Manchester, Bolton and Bury Canal SBI Grade A SD 764 068 to SD 793 096	✓	✓					
Wetland Near Radcliffe SBI Grade C SD 787 078			✓				

Elton Reservoir SBI – Grade A

- 3.2.3 Elton Reservoir is a large reservoir which is reported to be one of the most important reservoirs for birds in Greater Manchester, with around 140 bird species recorded annually and throughout the year; a variety of bird species are attracted to the reservoir during the winter months and during spring and autumn migration times, and a range of breeding bird species are confirmed at the site.
- 3.2.4 Wintering bird species noted on the SBI citation comprise goosander (*Mergus merganser*), snipe (*Gallinago gallinago*) and jack snipe (*Lymnocyptes minimus*), with flocks of wintering redwing (*Turdus iliacus*) and fieldfare (*Turdus pilaris*) using adjacent habitats. Large numbers of gull species are reported to gather at the reservoir including black-headed gull (*Larus ridibundus*), great black-backed gull (*Larus marinus*), lesser black-backed gull (*Larus fuscus*) and **herring gull (*Larus argentatus*)**. Wild duck species occurring regularly at the site include mallard (*Anas platyrhynchos*), teal (*Anas crecca*), tufted duck (*Aythya fuligula*), pochard (*Aythya ferina*), wigeon (*Anas penelope*) and goldeneye (*Bucephala clangula*).
- 3.2.5 Confirmed breeding bird species which are noted on the SBI citation comprise **lapwing (*Vanellus vanellus*)**, **grasshopper warbler (*Locustella naevia*)**, sedge warbler (*Acrocephalus schoenobaenus*), reed warbler (*Acrocephalus scirpaceus*), **reed bunting (*Emberiza schoeniclus*)**, **bullfinch (*Pyrrhula pyrrhula*)**, willow warbler (*Phylloscopus trochilus*), whitethroat (*Sylvia curruca*), **skylark (*Alauda arvensis*)**, grey wagtail (*Motacilla cinerea*), little owl (*Athene noctua*), great crested grebe (*Podiceps cristatus*), mute swan (*Cygnus olor*), Canada goose (*Branta canadensis*), mallard, coot (*Fulica atra*) and moorhen (*Gallinula chloropus*) with probable breeding swallow (*Hirundo rustica*), **grey partridge (*Perdix perdix*)**, little ringed plover (*Charadrius dubius*), ringed plover (*Charadrius hiaticula*) and redshank (*Tringa totanus*), and possible breeding tufted duck.

- 3.2.6 Birds which are noted on the SBI citation as passage species or occasional visitors include stonechat (*Saxicola torquata*), wheatear (*Oenanthe oenanthe*), **spotted flycatcher (*Muscicapa striata*)**, Arctic tern (*Sterna paradisaea*), common tern (*Sterna hirundo*), black tern (*Chlidonias niger*), grebes, dunlin (*Calidris alpina*), **curlew (*Numenius arquata*)**, greenshank (*Tringa nebularia*), green sandpiper (*Tringa ochropus*), sanderling (*Calidris alba*), whooper swan (*Cygnus cygnus*) and whimbrel (*Numenius phaeopus*). Swallow, sand martin (*Riparia riparia*) and swift (*Apus apus*) are known to gather to feed over the reservoir during the summer months and swallow also congregate at the site before the autumn migration.
- 3.2.7 Visiting raptors including buzzard (*Buteo buteo*), kestrel (*Falco tinnunculus*), hobby (*Falco subbuteo*) and sparrowhawk (*Accipiter nisus*), with grey heron (*Ardea cinerea*), kingfisher (*Alcedo atthis*) and oystercatcher (*Haematopus ostralegus*) also feeding regularly at the site.
- 3.2.8 Grassland adjacent to the reservoir is semi-improved and species-poor with some neutral grassland to the north, however historic surveys found species-rich marshy grassland in the south, supporting Lesser Spearwort (*Ranunculus flammula*), Marsh Pennywort (*Hydrocotyle vulgaris*) and Gypsywort (*Lycopus europaeus*).
- 3.2.9 The site is noted for being well-used by walkers for informal recreation, and also by a sailing club for water-based activities.

Within Reservoir SBI – Grade B

- 3.2.10 This site supports a reservoir, and boundary habitats including neutral grassland, acid grassland, marsh, flush and a stream. The SBI citation recognises both the ornithological value of the site and the value of these associated boundary habitats, which include grassland which is Greater Manchester Priority Habitat.
- 3.2.11 A wide range of bird species are noted as being recorded at the site on the SBI citation, and include gadwall (*Anas strepera*), great northern diver (*Gavia immer*), teal, tufted duck, pink-footed goose (*Anser brachyrhynchus*), goosander, cormorant (*Phalacrocorax carbo*), goldeneye, **grey partridge**, pheasant (*Phasianus colchicus*), oystercatcher, little gull (*Larus minutus*), **skylark**, grey wagtail, robin (*Erithacus rubecula*), redstart (*Phoenicurus phoenicurus*), **willow tit (*Parus montanus*)**, which is additionally a GM BAP species, blackcap (*Sylvia atricapilla*) and chiffchaff (*Phylloscopus collybita*). **Mistle thrush (*Turdus viscivorus*)**, **starling (*Sturnus vulgaris*)**, lesser whitethroat (*Sylvia curruca*), reed warbler, sedge warbler, garden warbler, **grasshopper warbler**, willow warbler, **reed bunting**, fieldfare, swallow, swift and house martin (*Delichon urbica*) have also been recorded.
- 3.2.12 Birds which have been confirmed as breeding at the site include mute swan, moorhen, coot, little grebe (*Tachybaptus ruficollis*), mallard, black-headed gull, grey heron, kingfisher, grey wagtail, blackbird (*Turdus merula*), magpie (*Pica pica*), kestrel and Canada goose.
- 3.2.13 Important habitats adjacent to the reservoir described in the SBI citation include areas of neutral and acid grassland, an area of marshland to the east of the reservoir, and a stream and marsh area at the western end of the reservoir.
- 3.2.14 In addition, invertebrates, amphibians and mammals are noted on the citation, with a range of pond snails and diving beetles, dragonflies and damselflies, seven-spot ladybird (*Coccinella septempunctata*) and water ladybird (*Anisosticta 19-punctata*), breeding common frog (*Rana temporaria*) and **common toad (*Bufo bufo*)**, and **brown hare (*Lepus europaeus*)** all recorded at the site; brown hare are additionally a GM BAP species.

Spen Moor Ponds SBI – Grade B

- 3.2.15 This site supports a collection of six field ponds which are of amphibian, aquatic invertebrate and botanical interest.
- 3.2.16 In the past the ponds have been found to support five species of amphibian, with at least four species found to be breeding, namely **great crested newt (*Triturus cristatus*)**¹, smooth newt (*Lissotriton vulgaris*), **common toad** and common frog. Palmate newt (*Lissotriton helveticus*) is suspected of breeding here also. Comprehensive amphibian surveys have been carried out by ERAP (Consultant Ecologists) Ltd in recent years, and the results are summarised in **Section 3.4**.
- 3.2.17 The ponds are noted as having a high number and species diversity of aquatic invertebrates, with the beetle species *Ilybius guttiger*, *Helochares lividus*, *Rhantus suturalis* and *Dytiscus circumflexus* noted on the citation.
- 3.2.18 In terms of botanical interest, the SBI citation notes the ponds have been recorded supporting Bogbean (*Menyanthes trifoliata*) and Greater Spearwort (*Ranunculus lingua*), both of which are rare within the borough.
- 3.2.19 The citation also states that the fields and hedgerows within the SBI have been recorded to support breeding **lapwing, skylark, bullfinch, linnet (*Carduelis cannabina*)** and **grasshopper warbler**. **Reed bunting** has been recorded breeding at the ponds. **Brown hare** have been recorded in the fields and in the wider landscape.

Elton Goyt SBI – Grade B

- 3.2.20 Elton Goyt comprises an area of marshy pasture, which provides a mosaic of marshy grassland and improved grassland which is used by a range of feeding and breeding birds.
- 3.2.21 Bird species which have been recorded breeding within the SBI (both probable and possible) comprise snipe, **lapwing, reed bunting, grasshopper warbler, skylark**, sedge warbler, lesser whitethroat, whitethroat, garden warbler, blackcap and chiffchaff. Flocks of at least 40 **lapwings** have been observed.
- 3.2.22 Other bird species which have been recorded within the SBI include great tit (*Parus major*), whinchat (*Saxicola rubetra*), stonechat, **grey partridge**, kestrel, merlin (*Falco columbarius*), peregrine (*Falco peregrinus*), great spotted woodpecker (*Dendrocopos major*), fieldfare, redwing, mistle thrush, pied wagtail (*Motacilla alba*), **spotted flycatcher**, pied flycatcher, brambling (*Fringilla montifringilla*), siskin (*Carduelis spinus*) and **yellow wagtail (*Motacilla flava*)**. Swallow, house martin and goldfinch (*Carduelis carduelis*) have been recorded feeding over the site.
- 3.2.23 The marshy grassland, a stream running from Elton Reservoir to the Manchester, Bolton and Bury Canal, the associated marginal vegetation of the stream and hedgerows are stated as noteworthy habitats on the SBI citation.

¹ A European Protected Species under the *Conservation of Habitats and Species Regulations 2017*, which receives full protection under Schedule 5 of the *Wildlife and Countryside Act 1981* (as amended), and is a Priority Species and GM BAP species.

Marl Pits at Black Lane SBI – Grade A

- 3.2.24 The SBI supports a cluster of ponds within a complex matrix of habitats including grassland, hedgerows and marshland. The ponds are known to support populations of breeding **great crested newt** and **common toad**.
- 3.2.25 Terrestrial habitats within the SBI are noted as of importance for amphibians, which include grasslands, hedgerow and allotments.
- 3.2.26 The citation also states the ponds are in a variety of stages of succession, with notable aquatic, emergent and marginal plant communities as well as the SBI supporting large areas of rich marsh flora.

Manchester, Bolton & Bury Canal SBI – Grade A

- 3.2.27 The Manchester, Bolton and Bury Canal is a disused waterway with the SBI area including the canal, and associated towpath, pools and grassland. The SBI citation notes the important diverse submerged plant communities present along the disused canal, with the presence of Water-soldier (*Stratiotes aloides*) and Frogbit (*Hydrocharis morsus-ranae*); both species are noted as having limited distribution in Greater Manchester. Associated marsh and towpath communities are also noted, as well as plant communities within the stonework of the canal.
- 3.2.28 Much of the SBI citation is dedicated to an area at the western end of the SBI, which lies outside of the proposed development site. This area was formerly an independent SBI which has since been incorporated into the Manchester, Bolton & Bury Canal SBI. This area supports pockets of acid grassland, developing woodland and marsh.
- 3.2.29 A variety of freshwater invertebrate species have been recorded within the SBI, including a range of pond snails, freshwater shrimp and dragonfly and damselfly species. Smooth newt breed in the canal, and **great crested newt** and **common toad** breed in ponds to the west of the proposed development site. **Lapwing**, **song thrush** (*Turdus philomelos*), **willow tit**, **linnet**, **bullfinch** and **reed bunting** have also been recorded within the SBI.

Wetland Near Radcliffe SBI – Grade C

- 3.2.30 The Wetland Near Radcliffe SBI supports two areas of open water with associated marsh and swamp habitats. The ponds, marsh vegetation and emergent vegetation sit within an area which was formerly species-rich grassland which has now been colonised by scrub and coarse grasses. Species characteristic of species-rich grassland are now a rare occurrence in the area.
- 3.2.31 Four species of amphibian, namely **common toad**, common frog, smooth newt and palmate newt, have been recorded at the wetland. **Reed bunting** is described as probably breeding at the site.

Non-statutory Designated Sites in the Wider Area

- 3.2.32 There are an additional 16 SBIs within a 2 kilometre radius of the site boundary, refer to **Figure 4**.
- 3.2.33 The details of these sites, including the distance from the site boundary, are presented in **Table 3.2** below. Refer to **Figure 1** for the location of the sites.

Table 3.2: Sites of Biological Importance in the Wider Area

Site Name & OS Grid Reference	Distance and Direction from the Site	Reasons for Designation
Daisyfield SBI SD 79216 09891	Adjacent to north-eastern site boundary	Reedbed & Swamp (Fw1); Ponds & small lodges (Fw2); Grassland (Gr2); Aquatic invertebrates (AI1); Woodland (Wd1)
Lower Hinds SBI SD 79487 09596	16 metres to the east	Calcareous grassland (Gr3)
Starling Road Reservoir SBI SD 77338 09829	48 metres to the east	Ponds & Small Lodges (Fw2); Grassland (Gr2)
Swan Lodge SBI SD 79680 08517	202 metres to the north-west	Open Water (Fw3); Running water (Fw4); Aquatic Invertebrates (AI1)
Cockey Moor Wood Pasture and Marsh SBI SD 77213 10736	342 metres to the east	Wood Pasture (Wd4); Grassland (Gr2)
Ainsworth Lodge SBI SD 76975 09328	443 metres to the north-west	Ponds & Small Lodges (Fw2); Amphibians (Am1)
Barracks Lodge SBI SD 78473 10342	448 metres to the west	Ponds & Small Lodges (Fw2); Aquatic Invertebrates (AI1); Amphibians (Am1)
Wetlands & Meadows near Coggra Fold SBI SD 76591 08670	668 metres to the north	Ponds (Fw2); Amphibians (AI1); Aquatic Invertebrates (AI1)
Sailor's Brow & Springwater Park SBI SD 79799 06777	758 metres to the west	Ponds & Small Lodges (Fw2); Habitat Mosaic (HM); Aquatic Invertebrates (AI1)
Ponds off Cockey Moor Road SBI SD 76669 10515	784 metres to the south	Ponds (Fw2)
Cyrus Ainsworth's Nurseries & Parkers Lodges SBI SD 78257 11053	805 metres to the north-west	Open water (Fw3)
Townside Pond SBI SD 80528 10302	1226 metres to the north	Ponds & Small Lodges (Fw2); Amphibians (Am1)
Reservoirs at Chapelfield SBI SD 78965 06195	1312 metres to the north-east	Ponds & Small Lodges (Fw2)
Kirklees Brook SBI SD 78369 12956	1772 metres to the south	Woodland (Wd1); Ponds & Small Lodges (Fw2); Aquatic Invertebrates (AI1); Bats (Mm1)
Ringley Woods (East) SBI, SD 78388 04655	2000 metres to the north	Ancient Woodland (Wd1); Grassland (Gr2)

3.3 Protected and Notable Species Records

Amphibians

3.3.1 **Table 3.3** presents the records of amphibian species held by GMLRC for the site and surrounding area.

Table 3.3: Records of Protected and Notable Amphibian Species Within the Site

Species	Designations	Notes ¹
Common toad (<i>Bufo bufo</i>)	S41	32 records are held for within the site, with the most recent records from 2012 and oldest records from 1992. Records are restricted to the Spen Moor Ponds SBI, Marl Pits at Black Lane SBI and an area including the Wetland Near Radcliffe SBI at the south of the site. 149 records are held for the wider area, the closest of which is 74 metres from the site. The oldest record is from 1996, and the most recent from 2013.
Great crested newt (<i>Triturus cristatus</i>)	EPS, WCAs5, S41 & GMBAP	38 47 records are held for within the site, with the most recent records from 2012 and oldest record from 19882. Records are restricted to the Spen Moor Ponds SBI and Marl Pits at Black Lane SBI. GMLRC hold 189 records outside the site in the wider area, the closest of which is 24 metres to the north-east of the site, within the Spen Moor Ponds SBI. The oldest record is 1985, and the most recent 2013.
¹ Key to Designation Codes: European Protected Species under the <i>Conservation of Habitats and Species Regulations 2017</i> ; WCAs5 = Species receives full protection under the Schedule 5 of the <i>Wildlife and Countryside Act 1981</i> (as amended); S41 = Priority Species listed under Section 41 of the 2006 Natural Environment and Rural Communities (NERC) Act GMBAP = Greater Manchester Biodiversity Action Plan (BAP) Priority Species		

3.3.2 As illustrated at **Figure 2**, the 47 historic records of great crested newt within the site boundary are restricted to the Spen Moor Ponds SBI at the centre and north-western areas of the site, and Marl Pits at Black Lane SBI at the west of the site. There are no known records of great crested newt in southern or eastern areas of the site. It is noted that the majority (81%) of the records are historic, with only 9 of the 47 records dated from 2011 onwards.

3.3.3 GMLRC hold 19 records of absence for great crested newt at ponds within the Spen Moor Ponds SBI from 2012 onwards; the majority of these surveys have been completed by ERAP Ltd and are discussed further at **Section 3.4**.

3.3.4 The 32 common toad records within the site boundary are of localised distribution within the site, and are centred on the Spen Moor Ponds SBI, Marl Pits at Black Lane SBI and associated within the Wetland Near Radcliffe SBI at the southern end of the site, and located to the south of the Manchester, Bolton and Bury Canal.

3.3.5 Records are held for great crested newt and common toad in the wider area surrounding the site.

Terrestrial Mammals

3.3.6 The GMLRC records of terrestrial mammals within the site and surrounding area are summarised in **Table 3.4** below. Species which have been recorded within the site are highlighted in **bold**.

Table 3.4: Records of Protected and Notable Terrestrial Mammals Species within the Site and Surrounding Area

Species	Designations	Notes
Badger (<i>Meles meles</i>)	PBA	No records of badger are held for the site. The closest record of badger is more than 1120 metres from the site.
Bats – bat species (<i>Chiroptera sp.</i>)	EPS, WCAs5 & GMBAP	Roosts One record of a roost at Higher Spen Moor Farm at the northern end of the site, from 2001. 10 records of roosts are held for the wider area, dated between 1991 and 2014, with the closest roost 590 metres to the south-west of the site. Activity GMLRC hold 3 records of bat species activity, all from 1989 and all located at the north-eastern end of the site. 12 records of bat activity are held for the wider area, dated between 1995 and 2008 with the closest record 40 metres from the site boundary.
Bats – brown long-eared bat (<i>Plecotus auritus</i>)	EPS, WCAs5, S41 & GMBAP	Roosts No records of roosts are held for the site or wider area. Activity 2 records of bat activity are held for the wider area, dated 2009 and 2014 with the closest record 1390 metres from the site boundary.
Bats – common pipistrelle (<i>Pipistrellus pipistrellus</i>)	EPS, WCAs5 & GMBAP	Roosts No records of roosts are held for the site. 40 records are of roosts are held for the wider area, dated between 1995 and 2015, with the closest 40 metres from the north-western site boundary. Activity 12 records of common pipistrelle activity are held for the site, dated between 1990 and 2014. These records are located at the northern end of the site near Spen Moor Farm, to the north and south of Elton Reservoir, and to the south of the Manchester, Bolton & Bury Canal. 263 records of bat activity are held for the wider area, dated between 1989 and 2015, with the closest 17 metres from the site boundary.
Bats – Daubenton’s bat (<i>Myotis daubentonii</i>)	EPS, WCAs5 & GMBAP	Roosts No records of roosts are held for the site. 2 records of roosts are held for the wider area, dated 1995 and 2004, with the closest record 330 metres to the north-east of the site. Activity Three records of bat activity area held for the site, with bats detected at the eastern edge of Elton Reservoir and near Elton Goyt. The records are dated between 1999 and 2014. 63 records of bat activity are held for the wider area, dated between 1995 and 2014 with the closest record 320 metres from the site boundary.
Bats – Myotis species (<i>Myotis sp.</i>)	EPS, WCAs5 & GMBAP	Roosts No records of roosts are held for the site or wider area. Activity One record of bat activity is held for the site, located at the eastern bank of Elton Reservoir, and dated 2014. 3 records of bat activity are held for the wider area, dated between 2002 and 2014 with the closest record 1140 metres from the site boundary.

Species	Designations	Notes
Bats – Nathusius' pipistrelle (<i>Pipistrellus nathusii</i>)	EPS, WCAs5 & GMBAP	<i>Roosts</i> No records of roosts are held for the site or wider area. <i>Activity</i> Two records of Nathusius' pipistrelle activity are held for the site, both associated with the eastern end of Elton Reservoir, both dated 2014. No records of bat activity are held for the wider area.
Bats – Natterer's bat (<i>Myotis nattereri</i>)	EPS, WCAs5 & GMBAP	<i>Roosts</i> No records of roosts are held for the site or wider area. <i>Activity</i> 1 record of bat activity is held for the wider area, dated 2002 and located 420 metres from the site boundary.
Bats – noctule (<i>Nyctalus noctula</i>)	EPS, WCAs5, S41 & GMBAP	<i>Roosts</i> No records of roosts are held for the site. 2 records of roosts are held for the wider area, dated 1997 and 2011, with the closest roost 80 metres to the south of the site. <i>Activity</i> 14 records of noctule activity are held for the site, concentrated across Elton Reservoir and the Manchester, Bolton and Bury Canal, dated between 1988 and 2014. 24 records of bat activity are held for the wider area, dated between 1989 and 2013 with the closest record 280 metres from the site boundary.
Bats – pipistrelle species (<i>Pipistrellus sp.</i>)	EPS, WCAs5 & GMBAP	<i>Roosts</i> No records of roosts are held for the site. <i>Activity</i> 119 records of roosts are held for the wider area, dated between 1985 and 2015, with the closest 40 metres from the north-western site boundary. 20 records of pipistrelle activity are held for the site, with activity concentrated at Elton Reservoir and to the east to the Manchester, Bolton & Bury Canal. The records date from 1988 to 2014. 190 records of bat activity are held for the wider area, dated between 1988 and 2014 with the closest record 80 metres from the site boundary.
Bats – soprano pipistrelle (<i>Pipistrellus pygmaeus</i>)	EPS, WCAs5, S41 & GMBAP	<i>Roosts</i> No records of roosts are held for the site. 2 records of roosts are held for the wider area, dated 2005 and 2010, with the closest 340 metres to the north of the site. <i>Activity</i> One record of soprano pipistrelle activity is held for the site, at the south-eastern end of Elton Reservoir, dated 2014. 23 records of bat activity are held for the wider area, dated between 2001 and 2014, with the closest record 470 metres from the site.
Bats – whiskered bat (<i>Myotis mystacinus</i>)	EPS, WCAs5 & GMBAP	<i>Roosts</i> No records of roosts are held for the site or wider area. <i>Activity</i> 6 records of bat activity are held for the wider area, dated between 1995 and 2014 with the closest record 1030 metres from the site boundary.
Bats – whiskered/Brandt's bat (<i>Myotis mystacinus/M. brandtii</i>)	EPS, WCAs5 & GMBAP	<i>Roosts</i> No records of roosts are held for the site or wider area. <i>Activity</i> 3 records of bat activity are held for the wider area, dated between 2011 and 2014 with the closest record 370 metres from the site boundary.

Species	Designations	Notes
Brown hare <i>(Lepus europaeus)</i>	S41 & GMBAP	39 records of brown hare are held for the site, dated between 1997 and 2015. Records are clustered in the fields at the north-western end of the site to the west of Higher Spen Moor Farm, and in fields to the south-east of Elton Reservoir, including within Elton Goyt SBI. 2 records are held for the southern end of Withins Reservoir, and 1 record is reported from Marl Pits at Black Lane SBI. 14 records are held for the wider area, dated between 1987 and 2015 with the closest record 20 metres from the site boundary.
Hedgehog <i>(Erinaceus europaeus)</i>	S41	No records are held for the site. Two are held for the wider area, dated between 2013 and 2014 with the closest record 1130 metres from the site boundary.
Water vole <i>(Arvicola amphibious)</i>	WCAs5, S41 & GMBAP	3 records relating to water vole for the wider area, all of which are located to the south east of the site and are dated from 2009. Two of the records (located 1830 and 1140 metres from the site) describe a reported absence of water vole at a pond to the east of Outward Gate Farm and at a pipeline in Sailor's Brow and Spring Water Park SBI. A third record (located 1420 metres from the site) states that a further survey within the Sailor's Brow & Spring Water Park SBI was inconclusive.
Otter <i>(Lutra lutra)</i>	EPS, WCAs5, S41 & GMBAP	3 records for otter within the wider area, dated between 2009 and 2014. The records are associated with the River Irwell and are located 710 metres to the north-east and 1100 and 910 metres to the south-east of the site.
EPS = European Protected Species WCAs5 = Listed on Schedule 5 of the <i>Wildlife and Countryside Act 1981</i> (as amended) PBA = Protection of Badgers Act 1992 S41 = Priority Species listed under Section 41 of the 2006 Natural Environment and Rural Communities (NERC) Act GMBAP = Greater Manchester Biodiversity Action Plan (BAP) Priority Species		

- 3.3.7 One bat roost (of an unidentified bat species) is reported at Higher Spen Moor Farm, located at the north-western end of the site from 2001. No further bat roosts are reported within the site boundary. Five different species of bat have been confirmed at the site, namely common pipistrelle, soprano pipistrelle, Nathusius's pipistrelle, Daubenton's bat and noctule, with additional records of *Pipistrelle* species, *Myotis* species and bat species; records of bat activity are concentrated to the east of Elton Reservoir and along the Manchester, Bolton and Bury Canal at the east of the site.
- 3.3.8 These species are also reported for the wider area. Low numbers of activity records for brown long-eared bat (*Plecotus auritus*), Natterer's bat (*Myotis nattereri*) and Whiskered/Brandt's bats (*Myotis mystacinus* /*M. brandtii*) are held for the wider area.
- 3.3.9 There are no records of further protected or Priority Species such as badger (*Meles meles*), water vole (*Arvicola amphibius*), otter (*Lutra lutra*) or hedgehog (*Erinaceus europaeus*) within the site boundary (although habitats may be suitable for these species).
- 3.3.10 Thirty-nine records of brown hare are held for the site, and are concentrated at the north-western end of the site and at fields to the west of Elton and Withins Reservoir.

Birds

GMLRC Records

- 3.3.11 GMLRC hold records for 7 bird species listed under Schedule 1 (Part 1) of the *Wildlife and Countryside Act 1981* (as amended), and a further 14 Priority Species of bird within the site and surrounding area. These records are summarised at **Table 3.5**, below.

Table 3.5: Records of Priority Species of Birds Held by GMLRC for the Site

Species	Designations and BOCC ¹ Status	Notes
Bullfinch (<i>Pyrrhula pyrrhula</i>)	S41, (Amber)	12 records within the site, dated between 1999 and 2013. The records are concentrated at the northern end of the site and to the north of Withins Reservoir. 6 records are reported for the wider area.
Barn owl (<i>Tyto alba</i>)	WCAs1 (Amber)	2 records, both within the site, dated 1995 and 2012. Both records are located near Spen Moor Farm.
Bittern (<i>Botaurus stellaris</i>)	WCAs1 (Red)	1 record, located at Elton Reservoir and dated 2009.
Common scoter (<i>Melanitta nigra</i>)	WCAs1 (Red)	16 records, dated between 1992 and 2009, and all associated with Elton Reservoir.
Curlew (<i>Numenius arquata</i>)	S41, (Amber)	13 records within the site, dated between 2012 and 2013. The records are concentrated on fields to the west of Spen Moor Farm. 2 records are reported for the wider area.
Dunnock (<i>Prunella modularis</i>)	S41, (Amber)	19 records within the site, dated between 2012 and 2013. The records are concentrated along the northern site boundary, and in the fields to the west of Spen Moor Farm. 6 records are reported for the wider area.
Grasshopper warbler (<i>Locustella naevia</i>)	S41, (Red)	6 records within the site, dated between 2012 and 2012. The records are concentrated around Spen Moor Farm, and the Spen Moor Ponds SBI. 1 record is reported for the wider area.
Herring gull (<i>Larus argentatus</i>)	S41, (Red)	4 records within the site, dated between 2012 and 2013. The records are concentrated around the fields to the west of Spen Moor Farm and Elton Reservoir. No records are reported for the wider area.
House sparrow (<i>Passer domesticus</i>)	S41, (Red)	44 records within the site, dated between 2012 and 2014. The records are concentrated to the north of Withins Reservoir and the fields to the west of Spen Moor Farm. 18 records are reported for the wider area.
Kingfisher (<i>Alcedo atthis</i>)	WCAs1 (Amber)	50 records, dated between 1988 and 2015. 24 records are reported for the site, centred on Elton and Withins Reservoir.
Lapwing (<i>Vanellus vanellus</i>)	S41, (Red)	27 records within the site, dated between 1991 and 2014. The records are distributed fairly evenly across the site, with the majority of records located within the Spen Moor Ponds SBI, around Withins Reservoir, and in the fields to the south of Withins Reservoir. 14 records are reported for the wider area.
Lesser redpoll (<i>Carduelis cabaret</i>)	S41, (Red)	1 record within the site, dated 2013. The record is located within the Elton Goyt. 2 records are reported for the wider area.
Linnet (<i>Carduelis cannabina</i>)	S41, (Red)	3 records within the site, dated between 1999 and 2012. The records are located at Elton Reservoir and at the fields to the west of Spen Moor Farm. 2 records are reported for the wider area.
Little ringed plover (<i>Charadrius dubius</i>)	WCAs1 (Green)	35 records, dated between 1985 and 2015. 25 records are reported for the site, centred upon Elton Reservoir.
Peregrine (<i>Falco peregrinus</i>)	WCAs1 (Green)	25 records, dated between 1992 and 2013, with 23 reported for the site, centred upon Elton Reservoir and Spen Moor Ponds SBI.
Reed bunting (<i>Emberiza schoeniclus</i>)	S41, (Amber)	59 records within the site, dated between 1999 and 2013. The records are concentrated at and between Withins and Elton Reservoir, and in the fields to the west of Spen Moor Farm. 20 records are reported for the wider area.
Scaup (<i>Aythya marila</i>)	WCAs1 (Red)	12 records, dated between 1992 and 2001, 10 of which are for the site. The records are all centred upon Elton Reservoir.

Species	Designations and BOCC ¹ Status	Notes
Skylark (<i>Alauda arvensis</i>)	S41, (Red)	22 records within the site, dated between 1991 and 2014. The records are concentrated at the fields between Withins Reservoir and Spen Moor Ponds SBI. 2 records are reported for the wider area.
Song thrush (<i>Turdus philomelos</i>)	S41, (Red)	17 records within the site, dated between 1999 and 2013. The records are distributed to the west of Spen Moor Ponds and to the north of Elton Reservoir. 22 records are reported for the wider area.
Starling (<i>Sturnus vulgaris</i>)	S41, (Red)	30 records within the site, dated between 2012 and 2014. The records are distributed to the west of Spen Moor Ponds and to the north of Elton Reservoir. 8 records are reported for the wider area.
Yellowhammer (<i>Emberiza citrinella</i>)	S41, (Red)	1 record within the site, dated 2000. The record is located within the Spen Moor Ponds SBI. No records are reported for the wider area.
S41 = Priority Species listed under Section 41 of the 2006 Natural Environment and Rural Communities (NERC) Act WCAs1 = Species listed under Schedule (Part 1) 1 of the <i>Wildlife and Countryside Act 1981</i> (as amended) BOCC: Birds of Conservation Concern (Eaton, et al., 2015)		

3.3.12 Greater Manchester Bird Recording Group (GMBRG) hold extensive records of protected and Priority Species of bird within the site boundary. A single record of honey buzzard (*Pernis apivorus*) is held for the wider area (more than 2 kilometres from the site). No further species are recorded outside the site and not within the site; only birds recorded within the site are reported in the table below.

3.3.13 The records are summarised at **Table 3.6**, below.

Table 3.6: GMBRG Records of Schedule 1 Birds within the Site Boundary

Species	Designations and BOCC Status ¹	Notes
Avocet (<i>Recurvirostra avosetta</i>)	EPS, WCAs1 & Amber	3 records are held for the site, (all not breeding), dated between 2009 and 2014. The largest number reported for any one record is 1.
Barn owl (<i>Tyto alba</i>)	WCAs1 & Amber	21 records are held for the site, (all breeding), dated between 2013 and 2016. The largest number reported for any one record is 5.
Bittern (<i>Botaurus stellaris</i>)	EPS, WCAs1, S41 & Amber	2 records are held for the site, (both breeding), dated between 2009 and 2009. The largest number reported for any one record is 1.
Black redstart (<i>Phoenicurus ochruros</i>)	WCAs1 & Amber	4 records are held for the site, (all 4 not breeding), dated between 2012 and 2012. The largest number reported for any one record is 1.
Black tern (<i>Chlidonias niger</i>)	EPS, WCAs1 & Amber	32 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 4
Black-necked grebe (<i>Podiceps nigricollis</i>)	WCAs1 & Amber	25 records are held for the site, (all not breeding), dated between 2012 and 2015. The largest number reported for any one record is 3
Black-tailed godwit (<i>Limosa limosa</i>)	WCAs1, S41 & Red	31 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 11.
Brambling (<i>Fringilla montifringilla</i>)	WCAs1 & Green	6 records are held for the site, (all not breeding), dated between 2009 and 2015. The largest number reported for any one record is 30.
Common scoter (<i>Melanitta nigra</i>)	WCAs1, S41 & Red	56 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 15.
Cuckoo (<i>Cuculus canorus</i>)	S41 & Red	4 records are held for the site, (2 breeding, 2 not breeding), dated between 2011 and 2015. The largest number reported for any one record is 1.
Curlew (<i>Numenius arquata</i>)	S41 & Amber	129 records are held for the site, (15 breeding, 114 not breeding), dated between 2008 and 2016. The largest number reported for any one record is 12.
Dunnock (<i>Prunella modularis</i>)	S41 & Amber	103 records are held for the site, (25 breeding, 78 not breeding), dated between 2008 and 2016. The largest number reported for any one record is 8.

Species	Designations and BOCC Status ¹	Notes
Fieldfare (<i>Turdus pilaris</i>)	WCAs1 & Red	218 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 5141.
Garganey (<i>Anas querquedula</i>)	WCAs1 & Amber	5 records are held for the site, (all not breeding), dated between 2015 and 2015. The largest number reported for any one record is 2.
Golden plover (<i>Pluvialis apricaria</i>)	EPS & Amber	11 records are held for the site, (all not breeding), dated between 2008 and 2015. The largest number reported for any one record is 8.
Goldeneye (<i>Bucephala clangula</i>)	Amber	299 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 19.
Grasshopper warbler (<i>Locustella naevia</i>)	S41 & Red	84 records are held for the site, (67 breeding, 17 not breeding), dated between 2008 and 2016. The largest number reported for any one record is 4.
Great Northern diver (<i>Gavia immer</i>)	EPS, WCAs1 & Amber	4 records are held for the site, (all not breeding), dated between 2015 and 2015. The largest number reported for any one record is 1.
Green sandpiper (<i>Tringa ochropus</i>)	WCAs1 & Amber	60 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 4.
Greenshank (<i>Tringa nebularia</i>)	WCAs1 & Green	32 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 8.
Grey wagtail (<i>Motacilla cinerea</i>)	Amber	186 records are held for the site, (22 breeding, 164 not breeding), dated between 2008 and 2016. The largest number reported for any one record is 9.
Hen harrier (<i>Circus cyaneus</i>)	EPS, WCAs1 & Red	1 record is held for the site, (not breeding), dated 2013. The record is for 1 bird.
Herring gull (<i>Larus argentatus</i>)	S41 & Red	100 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 1040.
Hobby (<i>Falco subbuteo</i>)	WCAs1 & Green	40 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 2.
House sparrow (<i>Passer domesticus</i>)	S41 & Red	101 records are held for the site, (26 breeding, 75 not breeding), dated between 2008 and 2016. The largest number reported for any one record is 80.
Kingfisher (<i>Alcedo atthis</i>)	EPS, WCAs1 & Amber	185 records are held for the site, (185 breeding, 0 not breeding), dated between 2008 and 2016. The largest number reported for any one record is 4.
Kittiwake (<i>Rissa tridactyla</i>)	Amber	6 records are held for the site, (all 6 not breeding), dated between 2008 and 2015. The largest number reported for any one record is 1.
Lapwing (<i>Vanellus vanellus</i>)	S41 & Red	379 records are held for the site, (108 breeding, 271 not breeding), dated between 2008 and 2016. The largest number reported for any one record is 450
Lesser redpoll (<i>Carduelis cabaret</i>)	S41 & Red	50 records are held for the site, (1 breeding, 49 not breeding), dated between 2008 and 2016. The largest number reported for any one record is 18
Linnet (<i>Carduelis cannabina</i>)	S41 & Red	108 records are held for the site, (35 breeding, 73 not breeding), dated between 2008 and 2016. The largest number reported for any one record is 40.
Little bittern (<i>Ixobrychus minutus</i>)	WCAs1	4 records are held for the site, (all not breeding), dated between 2014 and 2014. The largest number reported for any one record is 1.
Little ringed plover (<i>Charadrius dubius</i>)	WCAs1 & Green	395 records are held for the site, (363 breeding, 32 not breeding), dated between 2008 and 2016. The largest number reported for any one record is 19.
Little tern (<i>Sterna albifrons</i>)	EPS, WCAs1 & Amber	13 records are held for the site, (all not breeding), dated between 2008 and 2014. The largest number reported for any one record is 2.
Long-eared owl (<i>Asio otus</i>)	Green	11 records are held for the site, (all not breeding), dated between 2010 and 2012. The largest number reported for any one record is 2.
Long-tailed duck (<i>Clangula hyemalis</i>)	WCAs1 & Green	70 records are held for the site, (all not breeding), dated between 2014 and 2015. The largest number reported for any one record is 1.
Marsh harrier (<i>Circus aeruginosus</i>)	EPS, WCAs1 & Amber	1 record is held for the site, (not breeding), dated 2016. 1 bird was recorded.
Mediterranean gull (<i>Larus melanocephalus</i>)	EPS, WCAs1 & Amber	33 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 3.
Merlin (<i>Falco columbarius</i>)	EPS, WCAs1 & Amber	10 records are held for the site, (all not breeding), dated between 2008 and 2015. The largest number reported for any one record is 1.

Species	Designations and BOCC Status ¹	Notes
Mistle thrush (<i>Turdus viscivorus</i>)	Amber	134 records are held for the site, (32 breeding, 102 not breeding), dated between 2008 and 2016. The largest number reported for any one record is 32.
Osprey (<i>Pandion haliaetus</i>)	EPS, WCAs1 & Amber	10 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 1.
Peregrine (<i>Falco peregrinus</i>)	EPS, WCAs1 & Green	120 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 2.
Pied flycatcher (<i>Ficedula hypoleuca</i>)	Amber	1 record is held for the site, (not breeding), dated 2015. 1 bird was recorded.
Pintail (<i>Anas acuta</i>)	Amber	19 records are held for the site, (all not breeding), dated between 2008 and 2015. The largest number reported for any one record is 2.
Pochard (<i>Aythya ferina</i>)	Amber	154 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 16.
Red kite (<i>Milvus milvus</i>)	EPS, WCAs1 & Amber	2 records are held for the site, (all not breeding), dated between 2011 and 2011. The largest number reported for any one record is 2.
Redwing (<i>Turdus iliacus</i>)	WCAs1 & Red	165 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 2000.
Reed bunting (<i>Emberiza schoeniclus</i>)	S41 & Amber	196 records are held for the site, (81 breeding, 115 not breeding), dated between 2008 and 2016. The largest number reported for any one record is 20
Ring ouzel (<i>Turdus torquatus</i>)	S41 & Red	1 record is held for the site, (not breeding), dated 2016. 1 bird was recorded.
Ringed plover (<i>Charadrius hiaticula</i>)	Amber	293 records are held for the site, (10 breeding, 283 not breeding), dated between 2008 and 2016. The largest number reported for any one record is 27.
Ruff (<i>Philomachus pugnax</i>)	EPS, WCAs1 & Red	26 records are held for the site, (all not breeding), dated between 2011 and 2016. The largest number reported for any one record is 2.
Scaup (<i>Aythya marila</i>)	WCAs1, S41 & Red	23 records are held for the site, (all not breeding), dated between 2010 and 2016. The largest number reported for any one record is 3.
Short-eared owl (<i>Asio flammeus</i>)	EPS & Amber	6 records are held for the site, (all not breeding), dated between 2009 and 2012. The largest number reported for any one record is 1.
Skylark (<i>Alauda arvensis</i>)	S41 & Red	180 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 180.
Slavonian grebe (<i>Podiceps auritus</i>)	EPS, WCAs1 & Amber	6 records are held for the site, (all not breeding), dated between 2011 and 2011. The largest number reported for any one record is 1.
Song thrush (<i>Turdus philomelos</i>)	S41 & Red	154 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 31.
Spotted flycatcher (<i>Muscicapa striata</i>)	S41 & Red	105 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 9.
Starling (<i>Sturnus vulgaris</i>)	S41 & Red	168 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 1955.
Tree pipit (<i>Anthus trivialis</i>)	S41 & Red	10 records are held for the site, (all not breeding), dated between 2014 and 2016. The largest number reported for any one record is 2.
Tree sparrow (<i>Passer montanus</i>)	S41 & Red	7 records are held for the site, (all not breeding), dated between 2009 and 2012. The largest number reported for any one record is 3.
Twite (<i>Carduelis flavirostris</i>)	S41 & Red	4 records are held for the site, (all not breeding), dated between 2009 and 2010. The largest number reported for any one record is 3.
Whimbrel (<i>Numenius phaeopus</i>)	WCAs1 & Red	33 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 9.
Whinchat (<i>Saxicola rubetra</i>)	Amber	44 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 7.
White-winged black tern (<i>Chlidonias leucopterus</i>)	EPS	3 records are held for the site, (all not breeding), dated between 2008 and 2014. The largest number reported for any one record is 2.
Whooper swan (<i>Cygnus Cygnus</i>)	EPS, WCAs1 & Amber	50 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 46.

Species	Designations and BOCC Status ¹	Notes
Willow tit (<i>Parus montanus</i>)	S41 & Red	44 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 5.
Wood sandpiper (<i>Tringa glareola</i>)	EPS, WCAs1 & Amber	7 records are held for the site, (all not breeding), dated between 2009 and 2010. The largest number reported for any one record is 1.
Woodcock (<i>Scolopax rusticola</i>)	Amber	40 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 3.
Yellow wagtail (<i>Motacilla flava</i>)	S41 & Red	81 records are held for the site, (all not breeding), dated between 2008 and 2016. The largest number reported for any one record is 4.
EPS = European Protected Species under the Habitats Directive WCAs1 = Species listed under Schedule 1 of the <i>Wildlife and Countryside Act 1981</i> (as amended) S41 = Priority Species listed under Section 41 of the 2006 Natural Environment and Rural Communities (NERC) Act BOCC: Birds of Conservation Concern (Eaton, et al., 2015)		

3.3.14 Four species listed under Schedule 1 of the *Wildlife and Countryside Act 1981* (as amended) have been reported to breed within the site, namely barn owl (*Tyto alba*), bittern (*Botaurus stellaris*) also a Priority Species, kingfisher (also an EPS under the Habitats Directive) and little ringed plover. Barn owl, kingfisher and little ringed plover were all last confirmed as breeding at the site in 2016, whereas bittern has not been a confirmed breeder at the site since 2009.

3.3.15 31 other Schedule 1 species have been recorded at the site, but not breeding.

3.3.16 Nine further Priority Species (not counting bittern) have been confirmed to breed at the site, namely cuckoo (*Cuculus canorus*), curlew, dunnock, grasshopper warbler, house sparrow, lapwing, lesser redpoll, linnet and reed bunting.

3.3.17 Ringed plover, mistle thrush and grey wagtail (all 'Amber' listed by the BOCC) are also recorded as breeding with the site.

Other Wildlife

Invertebrates

3.3.18 GMLRC holds two records of Wall (*Lasiommata megera*) butterfly, a Priority Species within the site; both records are dated from 2011. Both records are reported for the north-eastern end of Elton Reservoir.

3.3.19 Six records of cinnabar (*Tyria jacobaea*) moth, a Priority Species, are reported for wider area, dated between 2009 and 2012, and all to the north-east of Elton Reservoir; the closest record is 18 metres from the site boundary, and within Daisyfield SBI.

3.3.20 No further records of protected or Priority Species of invertebrate are held for the site or wider area.

Reptiles

3.3.21 No records of reptile species are held for site.

3.3.22 One record of common lizard (*Zootoca vivipara*) reported, 1.5 kilometres to the south-east of the site, dated 2015. The record is reported from the back garden of a property on Cromwell Road, Whitefield. Common lizard is a protected species under Schedule 5 of the *Wildlife and Countryside Act 1981* and is also a Priority Species. There are no further records of reptile species in the wider area.

Flowering Plants

- 3.3.23 GMLRC report one record of Floating Water-plantain (*Luronium natans*), dated 2014 and located approximately 900 metres to the west of the site (at a pond within the Wetland & Meadows near Coggra Fold SBI). Floating Water-plantain is a European Protected Species under the *Conservation of Habitats and Species Regulations 2017*.
- 3.3.24 Two records of Yellow Bird's-nest (*Monotropa hypopitys*), a Priority Species, are held for the wider area, dated 2010 and 2013 with the closest record 1570 metres from the site boundary
- 3.3.25 There are no further records of any protected or notable flowering plants in the wider area of the site.

3.4 Previous Surveys Conducted By ERAP Ltd at the Site

ERAP Ltd Surveys at Spen Moor

- 3.4.1 ERAP Ltd has previously conducted survey and assessment of areas within the northern-western end of the site in association with the ongoing Bellway Homes development at fields adjacent to the northern site boundary, and to the east of Higher Spen Moor Farm. This survey area has been referred to as 'Spen Moor' in previous reports.
- 3.4.2 The previous surveys at Spen Moor included great crested newt presence / absence surveys, water vole presence / absence surveys, a brown hare survey and a ground-nesting bird survey, all at areas within the Elton site boundary. ERAP Ltd is also conducting annual monitoring surveys of ponds at Spen Moor over a 5 year period (surveys commenced in 2016), including surveys at five ponds within the Elton site boundary.
- 3.4.3 The comprehensive 2016 monitoring surveys conducted at five ponds within the Elton site, as reported in *2014-069f Land at Spen Moor, Bury - 2016 Ecological Monitoring Surveys* (ERAP Ltd., 2016) and four further ponds to the north of the site boundary, as reported in *2014-069e Land at Spen Moor, Bury - 2016 Ecological Monitoring Surveys* (ERAP Ltd., 2016), did not detect great crested newt at any pond. The surveys were carried out in full accordance with the current survey guidelines as stated in the *Great Crested Newt Mitigation Guidelines* (English Nature, 2001).
- 3.4.4 Two ground-nesting bird surveys were conducted at fields at the north-western end of the Elton site in May and June 2012, following the standard RSPB breeding bird survey methods described in *Bird Monitoring Methods* (RSPB, 1998). No ground-nesting birds, such as lapwing or skylark, were detected during these surveys, as reported in *2012/021 Spen Moor Proposed Residential Development - Surveys of Grasslands, Ground Nesting Birds and Field Conditions of the Wider Area Outside the Application Site* (ERAP Ltd., 2012).
- 3.4.5 Also in 2012, water vole presence / absence surveys were conducted at Spen Moor Brook (located to the north-west of Elton Reservoir), and at Doffer Fold Brook (located to the south-west of Elton Reservoir). The surveys were completed in accordance with the guidelines relevant at the time, as detailed in the *Water Vole Conservation Handbook* (Strachan, et al., 2011). Absence of water vole was confirmed in both cases. The water vole survey at Spen Moor Brook to the north-west of Elton Reservoir was updated in 2015; again water vole were confirmed as absent from the brook.

ERAP Ltd Surveys at Brook Bottom Farm

- 3.4.6 ERAP Ltd. has also conducted previous ecological surveys at the proposed residential development of a field unit at the western boundary of the site, to the south of Brook Bottom Farm. This survey area has been referred to as 'Brook Bottom' in previous reports.
- 3.4.7 These previous surveys included an Extended Phase 1 Habitat Survey, as reported *2014-299c Land to East of Warwick Road and Coventry Road, Radcliffe - Ecological Survey and Assessment* (ERAP Ltd., 2016), and great crested newt presence / absence surveys, as reported in *2014-299b Land at East of Warwick Road and Coventry Road, Radcliffe - Great Crested Newt Survey and Ecological Enhancement Strategy* (ERAP Ltd., 2015). These surveys include areas within areas of the Elton site boundary.
- 3.4.8 Great crested newt presence / absence surveys were conducted in 2015 at four ponds within the Elton site, four ponds within the East Lancashire Crematorium and nine further ponds within the Marl Pits at Black Lane SBI to the west of the site boundary.
- 3.4.9 The surveys detected breeding great crested newt at two ponds within the site boundary and at three ponds within the adjacent grounds of the East Lancashire Crematorium. Great crested newt absence was confirmed at the further ponds surveyed within the Marl Pits at Black Lane SBI. The location of the ponds surveyed, and whether great crested newt were found to be present or absent in 2015, are illustrated at **Figure 3**.

3.5 Land Classifications and Priority Habitats

- 3.5.1 In accordance with MAGiC Map, the site supports several areas of Priority Habitat. The Priority Habitats reported to be within the site boundary are detailed in **Table 3.8** below.

Table 3.7: Reported Priority Habitats within the Site Boundary

Priority Habitat	Grid Ref	Area	Location
Purple Moor Grass and Rush Pasture	SD 7908 0873	1.31 hectares	Part of Elton Goyt SBI at the eastern end of the site.
Lowland Fen	SD 7817 0848, SD 7865 0871 and SD 7929 0920 to SD 7861 0778	Total of 5.8 hectares	Three locations within the site boundary, namely the wetland surrounding Withins Reservoir, land within Marl Pits at Black Lane SBI at the west of the site, and the banks of the Manchester, Bolton and Bury Canal at the east of the site.
Coastal and Floodplain Grazing Marsh	SD 7923 0882	Total 13.56 hectares	At the east of the site, part of the Elton Goyt SBI and land to the east of the Manchester, Bolton and Bury Canal SBI.
Deciduous Woodland	SD 7898 1003	0.88 hectares	At the northern boundary of the site

3.5.2 Additionally, MAGIC Map identifies a 9.9 hectare area at the centre of the site, to the east of Withins Reservoir and south of Elton Reservoir, as '*good quality semi-improved grassland*'; this habitats is not however listed as Priority Habitat.

3.5.3 The site is not classified as an Important Bird Area in accordance with the JNCC.

4.0 ASSESSMENT AND CONSIDERATIONS

4.1 Designations for Nature Conservation

4.1.1 This desktop study has confirmed that there are no statutory designated sites, such as Special Protection Areas (SPAs) or Sites of Special Scientific Interest (SSSI), within the site or within a 2 kilometre radius of the site boundary. The site does lie within a SSSI Impact Risk Zone, however this zone (at over 3 kilometres from the nearest SSSI) does not require any further consultation with Natural England for any development or than aviation proposals, pig and poultry units, slurry lagoons, and general combustion processes, such as waste incineration and sewage treatment.

4.1.2 This study has confirmed that the site contains seven non-statutory Sites of Biological Importance (SBIs), which can be broadly categorised as the two reservoirs within the site (Elton Reservoir (*Grade A*) and Withins Reservoir (*Grade B*)), two areas supporting ponds of importance to great crested newt (Spen Moor Ponds (*Grade B*) and Marl Pits at Black Lane (*Grade A*)), two areas of wetland and marsh (Elton Goyt (*Grade B*) and Wetland Near Radcliffe (*Grade C*)) and the Manchester, Bolton and Bury Canal (*Grade A*).

4.1.3 These non-statutory sites are designated for a variety of reasons, including importance for wildlife such as birds, amphibians and invertebrates, and also the importance of their associated habitats, such as grasslands, swamp, ponds and open water habitats.

4.1.4 The seven SBIs form a mosaic over the Elton Reservoir site and occupy a total of approximately 67.3 hectares (27%) of the site area, with approximately 40.2 hectares (16.2% of the site area) classified as Grade A SBI, approximately 26.4 hectares (10.6% of the site area) classified as Grade B SBI, and 0.74 hectares (0.3% of the site) classified as Grade C SBI.

4.1.5 There are also a further 16 SBIs within a 2 kilometre radius of the site boundary and with habitat connectivity to the site.

4.1.6 The presence of the SBIs and the reasons for their designation are significant considerations in the allocation, and in informing the scope of ecological surveys necessary.

4.2 Protected and Notable Species

4.2.1 This study demonstrates there are records of protected and notable species for the site and the wider area, most notably extensive records of protected and Priority Species of bird species, including a range of breeding, passage and wintering bird species. A variety of protected bird species, including species which will utilise open water habitats within the site, those which are attracted by farmland habitats and those which are indicative of wetland and marshland, are reported for the site.

4.2.2 Great crested newt (a protected species) and common toad (a Priority Species) are reported for the site. These amphibian species depend on ponds and other open water habitats for breeding, and also high quality terrestrial habitats such as grasslands and hedgerows for foraging, refuge and hibernation. Recent surveys by ERAP Ltd have indicated an absence of great crested newt at many of the ponds within the northern area of the site (at Spen Moor Ponds SBI)², however surveys in 2015 found great crested newt presence at ponds at the west of the site³, and there are a number of ponds within the site for which no recent survey data are currently available.

4.2.3 Bats have been recorded both within the site and the wider area. Bats will utilise suitable buildings, trees and other features for roosting and are attracted to forage for invertebrates over habitats such as ponds / reservoirs / water bodies, woodland, woodland edge habitat, hedgerows and grasslands.

4.2.4 Brown hare (a Priority Species) records are held for the site and the wider area. This species is typical of the open farmland habitats which characterise the majority of the fields within the site.

4.2.5 There are also records of water vole, otter and badger in the wider area. The Manchester, Bolton & Bury Canal will likely provide suitable habitat for otter and water vole, with the ponds and brooks within the site also suitable for use by water vole (although previous surveys by ERAP Ltd at ditches and ponds have not found water vole presence to date). The hedgerow, scrub and wooded habitats within the site will provide favourable habitat for sheltering badger, with the grasslands providing suitable foraging habitat.

4.3 Scope of Ecological Survey

4.3.1 At the time of the request and collation of these data (January 2017) ecological surveys have commenced and are ongoing. The surveys are required to inform the baseline ecological conditions of the site in order to fully assess the potential ecological constraints on the proposals and to inform the specification and scope of mitigation and enhancements which will be required at the site in accordance with wildlife legislation and planning policy.

4.3.2 Following the findings of this desktop report, it is considered the following initial surveys are required:

- *Wintering / Passage Migrant Bird Surveys*: Three surveys have already been conducted to date, with further monthly surveys proposed from September 2017 to December 2017;

² Refer to 2014-069f Land at Spen Moor, Bury - 2016 Ecological Monitoring Surveys (ERAP Ltd., 2016).

³ Refer to 2014-299b Land at East of Warwick Road and Coventry Road, Radcliffe - Great Crested Newt Survey and Ecological Enhancement Strategy (ERAP Ltd., 2015)

- *Breeding Bird Surveys:* Monthly breeding bird surveys are proposed throughout the bird breeding season from March to August 2017;
- *Phase 1 Habitat Survey:* A walkover survey is required to map the habitats and to assess the suitability of habitats for protected species. This will include mapping and assessment of habitats within the SBIs, an assessment of the suitability of ponds within the site for breeding amphibians and the search for invasive plant species;
- *Great Crested Newt Surveys:* Presence / absence surveys are required at ponds assessed as being suitable for use by breeding great crested newt. The survey season is restricted to mid-March to mid-June inclusive; and
- *Bat Surveys:* Bat activity surveys will be required to determine the usage of habitats within the site by foraging and commuting bats. Bat roost presence / absence surveys may also be required at any buildings or trees identified as suitable for roosting bats. The survey window for bat surveys extends between May to September inclusive.

Scoped Out Surveys

4.3.3 Further surveys for protected species may be required and will be informed by the initial surveys listed above, particularly the Phase 1 Habitat Survey. However, at this stage, based on the habitats present and the results of the desktop study the need for surveys for the following relevant fauna are reasonably scoped out:

- a. Reptile species.

Future Surveys

4.3.4 The following surveys are likely to be required to form part of a future and more detailed assessment of the impacts of the proposals and progress a planning application:

- a. Licensed daylight bat survey and assessment of any buildings, structures, trees, bridges and culverts likely to be affected by the proposals;
- b. Dusk emergence and dawn re-entry surveys for bat activity;
- c. Bat activity transects at specific areas of the site (once the proposals are confirmed); and
- d. Updates of surveys for protected species to inform Natural England licence applications, as appropriate.

4.4 Provisional Recommendations in Relation to Site Layout

4.4.1 At this early stage, general recommendations can be made regarding the design of the site layout of the site, to ensure important habitat features and species are protected and providing opportunities for ecological enhancements at the site. More detailed and specific recommendations will be provided following the site surveys listed at **Section 4.3** above.

SBI Protection

4.4.2 It is recommended that the areas of the site which are designated as Sites of Biological Importance should be retained and protected in the design of the site layout, particularly those SBIs which are classified as Grade A (namely Elton Reservoir SBI, Marl Pits at Black Lane SBI and the Manchester, Bolton and Bury

Canal SBI). It is also important to consider the qualifying features of interest of the SBIs. For example Elton Goyt, Elton Reservoir and Withins Reservoir are designated as important for birds, and in order to ensure these features are not negatively affected by the proposals, it may be necessary to establish appropriate undeveloped buffer zones around the SBIs to ensure the important bird populations are not significantly disturbed or displaced from using the site.

- 4.4.3 If becomes apparent that encroachment into an area of SBI is necessary to facilitate a viable development, it will be necessary to provide extensive and appropriate mitigation and compensation, appropriate to the features of interest of the SBI.

5.0 CONCLUSION

- 5.1 This report has presented the information available for the site, including the presence of designated sites, protected and notable species, broad land / habitat classifications and previous ecological survey work conducted at the site.
- 5.2 Comprehensive ecological surveys are ongoing and proposed which are required to appropriately inform the baseline ecological conditions at the site. These surveys will allow comprehensive assessment of the potential ecological constraints of the proposals and will inform the specification and scope of mitigation and enhancements which will be required at the site in accordance with wildlife legislation and planning policy.
- 5.3 Provisional broad site layout recommendations have been proposed which aim to inform early site layout discussions and design. More detailed recommendations will be made following the conclusion of the ongoing baseline condition surveys.

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7.0 FIGURES

Figure 1: Plan to Show Locations of Sites of Biological Importance



Figure 2: Plan to Show Location of Great Crested Newt Records

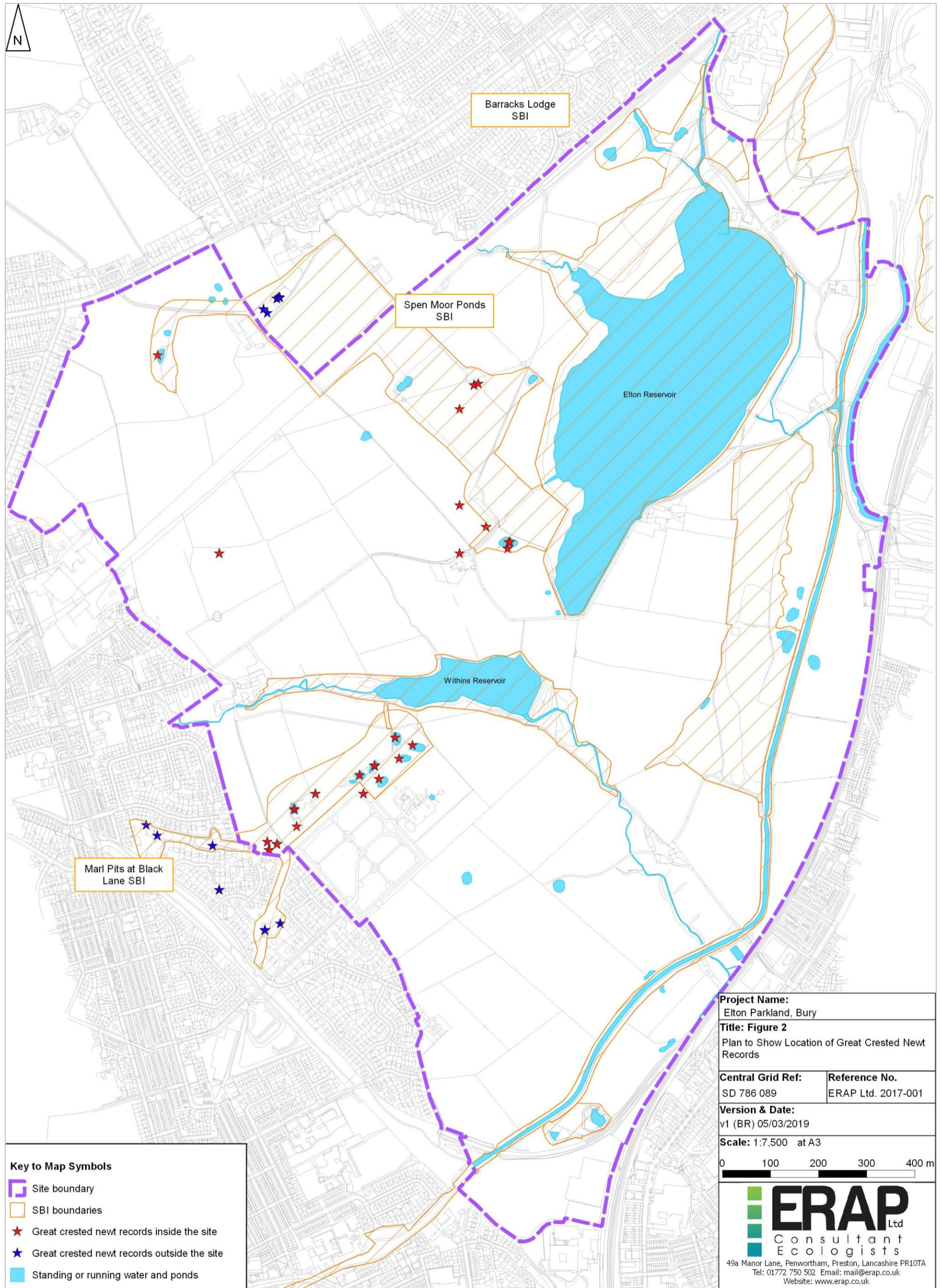


Figure 3: Plan to Show Results of Previous ERAP Ltd. Surveys

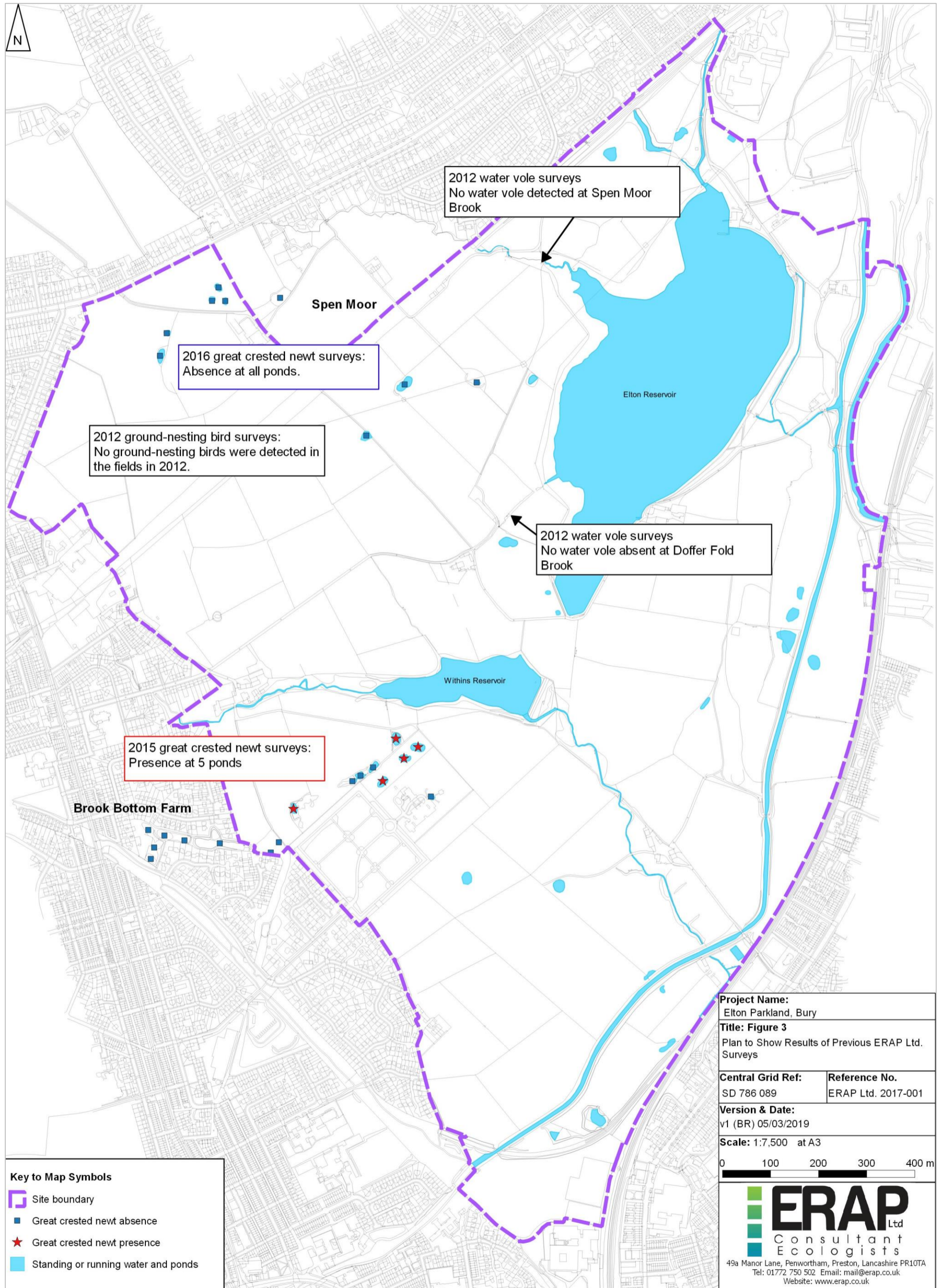
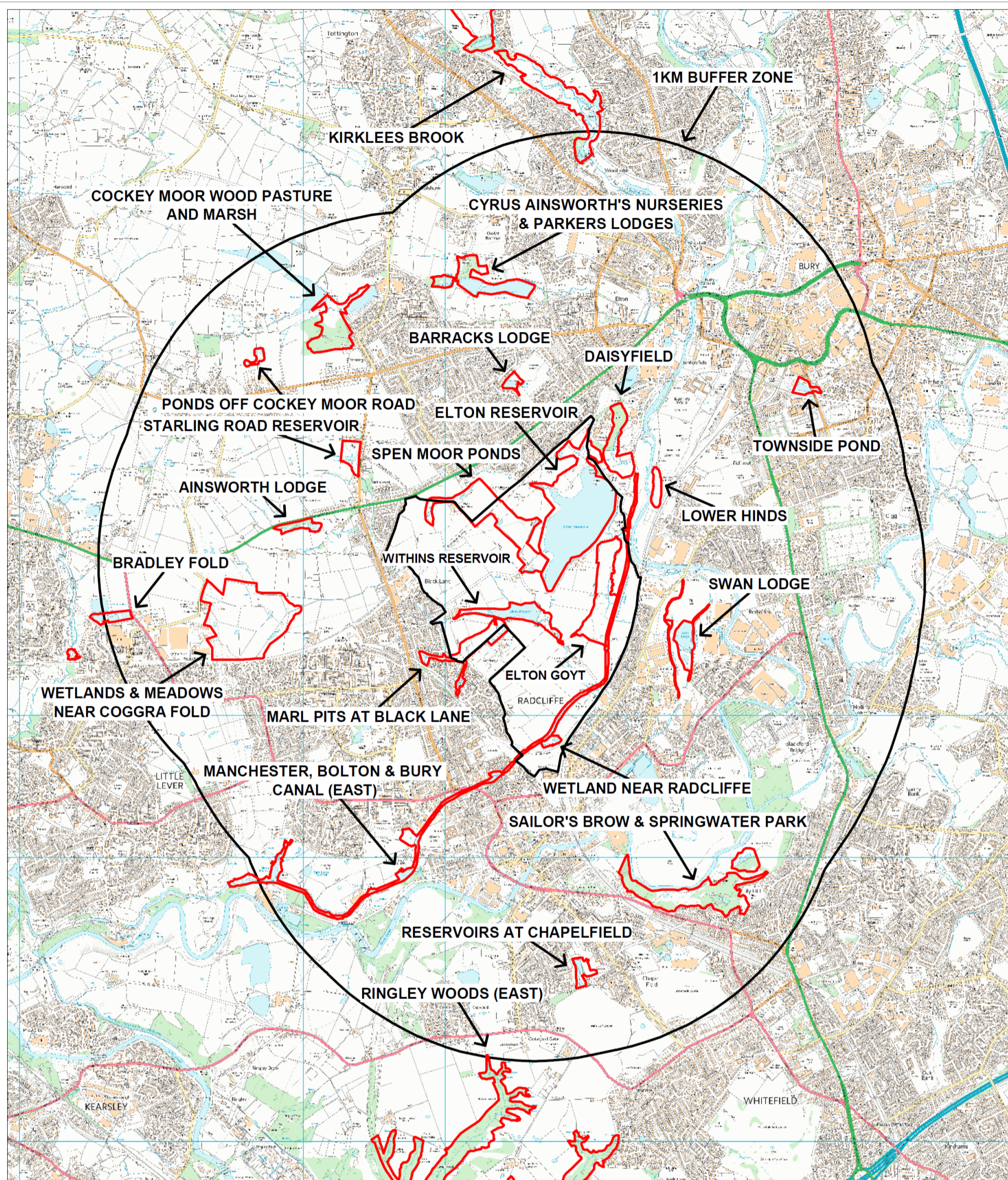



Figure 4: Plan to Show SBIs in the Wider Area



KEY

SITE OF BIOLOGICAL IMPORTANCE

 SBI BOUNDARY

GREATER MANCHESTER ECOLOGY UNIT
ECOLOGICAL SEARCH - SD 7852 0904

ELTON - MAP 1

SCALE 1:25,000

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