



**North Selsey,
West Sussex**

Winter Bird Survey
2021/2022

For:
Landlink Estates

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April 2022
FINAL

North Selsey, West Sussex 2021/22 Wintering bird survey

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North Selsey, West Sussex 2021/22 Wintering bird survey

Executive summary

- Holbury Consultancy Service Ltd was appointed by Landlink Estates to repeat wintering bird surveys on land north of Selsey, West Sussex. The site lies between Pagham Harbour SPA and Ramsar to the east and Medmerry to the west (Figure 1). The site was previously surveyed over the winters of 2017/18, 2018/2019 and 2020/21.

2017/18 survey

- The 2017/18 wintering bird survey found the site had a role in supporting a nationally important population of wintering brent geese (*Branta bernicla bernicla*) and wintering populations of county importance of Eurasian wigeon (*Anas penelope*), Eurasian teal (*Anas crecca*) and lapwing (*Vanellus vanellus*).
- The site was considered to have a role in supporting wintering populations of district importance for eight species: mallard (*Anas platyrhynchos*), little egret (*Egretta garzetta*), peregrine (*Falco peregrinus*), curlew (*Numenius arquata*), golden plover (*Pluvialis apricaria*), green sandpiper (*Tringa ochropus*), stock dove (*Columba oenas*) and skylark (*Alauda arvensis*).

2018/19 survey

- The findings of the 2018/19 wintering bird surveys largely confirmed those of the previous year. As for the 2017/18 survey, the site was considered to have a role in supporting a nationally important population of wintering brent geese and wintering populations of county importance of Eurasian teal (*Anas crecca*) and lapwing.
- Again, as before, the site was also considered to have a role in supporting wintering populations of district importance for eight species: mallard, little egret, peregrine, curlew, golden plover, green sandpiper, stock dove and skylark. No Eurasian wigeon were recorded feeding on site during the 2018/19 winter.

2020/21 survey

- The findings of the 2020/21 wintering bird surveys largely confirmed those of the previous year. As noted during previous surveys the site is considered to have a role in supporting a nationally important population of wintering brent geese.
- The site was also considered to have a role in supporting wintering populations of district importance for twelve species: mallard, little egret, peregrine, oystercatcher (*Haematopus ostralegus*), curlew, lapwing, golden plover, green sandpiper, stock dove, meadow pipit (*Anthus pratensis*), skylark and pied wagtail (*Motacilla alba yarrellii*).

2021/22 survey

- Two transect surveys a month were undertaken between October 2021 and March 2022. The wintering bird survey used a methodology adapted from the BTO Winter Farmland Bird Survey. The survey visits were timed to coincide with high tide to ensure the site was surveyed when birds present in Pagham Harbour and Medmerry were most likely to be using surrounding habitats.
- During the twelve field surveys a total of 97 species were recorded. Of these, 18 are red list species, 36 are amber list species and the remaining 43 species are included on the green list.
- The findings of the 2020/21 wintering bird surveys largely confirm those of the previous year. Significant changes in the size of wintering populations of some species were recorded. However, the distribution of key species such as curlew, teal, lapwing and golden plover across the site largely mirrored patterns observed in previous surveys. No significant counts of Eurasian wigeon feeding on site were recorded on site for a third consecutive winter.
- In contrast to previous years use of the site by wintering brent geese was very limited; in previous winters the site has had a role in supporting a nationally important population of wintering brent geese. Numbers of wintering Eurasian teal increased due to the resumption of supplementary feeding of the flight ponds, with the site having a role in supporting a population of county importance.
- The site was also considered to have a role in supporting wintering populations of district importance for a further seven species: mallard, peregrine, curlew, golden plover, stock dove, skylark and yellowhammer (*Emberiza citronella*).
- The very low level of site use by brent geese may be due to cropping patterns with favoured fields not being sown with winter cereals in 2021/22. Alternatively it could reflect changes in feeding patterns across the wider area.
- A local and active ornithological group closely monitors Selsey and the surrounding area. It is recommended that this group be contacted to request access to records for the site, to ensure a comprehensive identification of key areas for foraging and roosting birds.

North Selsey, West Sussex 2021/22 Wintering bird survey

1.0 Introduction

- 1.1 Holbury Consultancy Service Ltd was appointed by Landlink Estates to repeat wintering bird surveys on land north of Selsey, West Sussex (Figure 1). The site had previously been surveyed over the winters of 2017/18, 2018/19 and 2020/21. The area covered by the survey is predominately arable land used for salad and cereal crops. Associated with the salad production are a series of irrigation reservoirs. A small shoot is active across the site and the flight ponds are fed over the winter period. Semi-natural habitat is extremely limited.
- 1.2 A series of transect surveys were undertaken, twice a month, between October 2021 and March 2022. The wintering bird survey used a methodology adapted from the BTO Winter Farmland Bird Survey¹. Visits were timed to coincide with high tide, generally starting around two and a half hours before high water and concluding around two and a half hours after high water. A transect covering all fields within the site was walked and all bird activity observed recorded. The starting point, route and the direction the transect was walked were changed each time to ensure each part of the site was surveyed at different points of the tidal cycle. During December and January the survey covered late afternoon periods when crepuscular species such as barn owl (*Tyto alba*) could be active.
- 1.3 The survey visits were timed to coincide with high tide. Undertaking survey work over high tide periods ensures that the site was visited when birds present in Pagham Harbour and Medmerry were most likely to be using surrounding habitats.
- 1.4 The previous surveys had recorded a number of different species using the site including brent geese (*Branta bernicla bernicla*), curlew (*Numenius arquata*), golden plover (*Pluvialis apricaria*) and lapwing (*Vanellus vanellus*); all these species utilise arable habitats for feeding and roosting during the winter.
- 1.5 The objective of the survey work was to record the wintering population of birds on site and evaluate their distribution across the site with reference to previous survey results. The survey specifically focussed on ducks, geese and waders, although a record was made of all species seen.
- 1.6 Jeff Picksley MCIEEM of Artemis Ecological Consulting Ltd conducted the survey work on behalf of Holbury Consultancy Services Ltd. Incidental observations made during other surveys have been used to supplement the bird survey results.

¹ Gillings, S., Wilson, A.M., Conway, G.J., Vickery, J.A., Fuller, R.J., Beavan, P., Newson, S.E., Noble, D.G and Toms, M.P. (2008) Winter Farmland Bird Survey. BTO Research Report No 494. BTO. Thetford, Norfolk.

2.0 Desk-top research

2.1 Recent Sussex Bird Reports^{2,3} were used to establish population levels and abundance of wintering species in Sussex. This allows for an assessment to be made of the significance of the species recorded at a county level. Table 1 below shows the numerical ranges used in the bird reports to describe the status of species in Sussex.

Table 1: Population classification used in Sussex Bird Report.

	Winter/passage
Very rare	1 - 10 records in total
Rare	Less than annual
Very scarce	1 - 20 per year
Scarce	21 - 200
Fairly common	201 – 2,000
Common	2,001 – 10,000
Very common	10,001 – 60,000
Abundant	60,000+

2.2 In addition WEBS data⁴ collected for Pagham Harbour and Medmerry was reviewed to determine the populations of birds using the protected sites. There is likely to be a degree of interchange between the two sites and it is not clear at this stage whether the development of Medmerry has led to a redistribution of wintering birds within the local area.

2.3 Nationally breeding and wintering bird populations in the UK are subject to periodic review to identify species of conservation concern⁵. The review subdivides populations into three categories: red list species are those of highest conservation concern, amber list species are species experiencing moderate declines in populations or range and those on the green list are of no immediate conservation concern. This review uses data from a wide range of sources including WeBS data. The most recent review was undertaken in 2021 (Birds of Conservation Concern 5). Appendix 1 gives further details of the assessment criteria used in the compilation of these lists.

3.0 Survey results

3.1 Table 2 shows the dates, duration and weather conditions during the twelve survey visits. The table also includes the high tide time for Pagham Harbour. The survey visits were timed to coincide with the high water period as it was

² Sussex Ornithological Society (2016) The Sussex Bird Report 2016. No 69.

³ Sussex Ornithological Society (2017) The Sussex Bird Report 2017. No 70.

⁴ Frost, T.M., Calbrade N.A., Birtles, G.A, Hall, C., Robinson, A.E, H.J., Wotton, S.R., Balmer, D.E. and Austin, G.E 2021 Waterbirds in the UK 2019/20: The Wetland Bird Survey. BTO/RSPB/JNCC. Thetford. <https://app.bto.org/webs-reporting/numbers.jsp>

⁵ Stanbury, A., Eaton, M., Aebischer., Balmer, B., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D and Win, I (2021). The status of our bird populations: the fifth *Birds of Conservation Concern in the UK, Channel Islands and Isle of Man* and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds*. (114), pp. 723-747..

considered this was the period when birds using Pagham Harbour and Medmerry were most likely to be displaced onto neighbouring farmland.

Table 2 Survey timings, tide times & weather conditions during surveys

Date	Time	Weather
08/10/21	10:30 – 15:35	Cloudy with light drizzle until 11:10. Very mild. Cloud cover 7/8-8/8. North-east wind BF1. High tide (Pagham Harbour): 13:16 (5.92m)
19/10/21	08:45 – 14:30	Hazy sunshine at start becoming brighter as survey progressed. Very mild. Cloud cover 3/8 at start reducing to 1/8 by finish. South-west wind BF4-5. High tide (Pagham Harbour): 11:32 (5.57m)
5/11/21	08:15 – 14:15	Bright sunshine throughout. Overnight frost but becoming very mild. Cloud cover 2/8. North-west wind backing west and increasing BF1-3. High tide (Pagham Harbour): 11:07 (5.95m)
19/11/21	08:30 – 14:30	Overcast and mild throughout. Cloud 8/8. Variable north to north-west breeze BF1-2. High tide (Pagham Harbour): 11:12 (5.46m)
6/12/21	09:40 – 15:30	Overcast and wet. Light rain at start, becoming persistent between 11:00 and 14:30, very heavy between 12:20-12:40 and 13:50-14:30 (with reduced visibility). Rain cleared after 14:30 becoming bright and sunny. Cloud cover 8/8 at start decreasing to 3/8 by finish. Wind gusty south-west BF3-5. High tide (Pagham Harbour): 12:20 (5.81m)
20/12/21	08:40 – 14:15	Overcast and dull throughout. Cloud cover 8/8. Wind north-east BF2-4. High tide (Pagham Harbour): 11:46 (5.27m)
03/01/22	08:30 – 14:30	Overcast and mild. Cloud cover 8/8 throughout survey. Wind south-west BF3-4. High tide (Pagham Harbour): 11:21 (5.72m)
21/01/22	10:15 – 15:40	Bright and sunny with high cloud. Overnight frost with puddles and some ditches remaining frozen all day. Wind north backing north-west BF2. High tide (Pagham Harbour): 13:13 (5.24m)
02/02/22	09:15 – 14:50	Bright and sunny with high cloud. Very mild. Cloud cover 5/8 at start decreasing to 1/8 at finish. Wind west BF4 at start dropping to BF2 by finish. High tide (Pagham Harbour): 12:08 (5.68m)
19/02/22	10:20 – 15:15	Bright and sunny at start. Rain from 12:00 to 14:00, heavy at times. Cloud 6/8 at start and finish. Very strong and blustery south-west wind BF6-7 but gusts to BF9. High tide (Pagham Harbour): 12:56 (5.44m)
03/03/22	09:30 – 14:35	Bright sunshine at start, clouding over with light rain from 13:00 onwards. Cloud cover 4/8 at start increasing to 8/8 by end of survey. Wind south-east BF3-4. High tide (Pagham Harbour): 11:57 (5.66m)
21/03/22	10:40 – 15:30	Bright sunshine and warm at start, sunshine becoming hazy in afternoon. Cloud cover 6/8 throughout. Wind east BF3. High tide (Pagham Harbour): 13:11 (5.61m)

3.2 Access to the fields was unconstrained during the survey, although the reservoirs are fenced and access was not possible. The survey area is a

working farm and some agricultural activity occurred during the surveys. The site is subject to a degree of public access from the neighbouring areas, mainly walkers and dog walkers. Public access was not restricted to public rights of way and dogs were frequently recorded roaming across fields.

- 3.3 Pigeon shooting was underway during two surveys, which would have had a localised impact on the distribution of birds. However, the effects of the disturbance was not great with birds (not just woodpigeons) noted feeding on surrounding fields whilst shooting was taking place.
- 3.4 During the twelve visits a total of 97 species were recorded during the field surveys. Of the 97 species recorded during the wintering bird survey at Selsey, 18 are red list species, 36 are amber list species and the remaining 43 species are included on the green list.
- 3.5 The number of species recorded in each visit varied between 52 recorded in late February and 65 during early November. The mean number of species recorded per visit was 57. Appendix 2 includes tables detailing the results of each survey.
- 3.6 Forty five species were recorded during nine or more survey visits (46% of the total species recorded). These species represent the core wintering bird community within the survey area. Table 3 lists the species recorded on 75% of survey visits or more. Thirty-two of these species (71%) were also recorded on at least 75% of visits during the other three winter surveys (2017/18, 2018/19 and 2020/21). A further seven of the species recorded on at least 75% of survey visits during three of the four winter surveys periods. Species names are coloured appropriately for those species that occur on the red or amber list (BoCC5).

Table 3 List of species recorded on nine or more survey visits

Species					
Eurasian teal	Mallard	Red-legged partridge	Common pheasant	Common buzzard	Kestrel
Curlew	Golden plover	Lapwing	Cormorant	Black-headed gull	Herring gull
Mediterranean gull	Great black-backed gull	Grey heron	Moorhen	Coot	Jackdaw
Carrion crow	Magpie	Jay	Rook	Green woodpecker	Great spotted woodpecker
Blue tit	Great tit	Skylark	Meadow pipit	Stock dove	Woodpigeon
Collard dove	Blackbird	Song thrush	Common starling	Dunnock	Wren
Robin	Pied wagtail	Grey wagtail	Stonechat	Long-tailed tit	Goldfinch
Greenfinch	Chaffinch	House sparrow			

- 3.7 Of the regularly recorded species seven are red list species and fifteen feature on the amber list. The duck species recorded were largely associated with the flight ponds, irrigation reservoirs and ditches. The gull species were present flying over the site or feeding and loafing on fields.

Lapwing and golden plover were recorded feeding and roosting on arable fields within the site; flocks of both species were also recorded flying over. Curlew were recorded foraging on fields over the high tide period.

- 3.8 Twenty species were recorded on two or fewer survey visits only (21% of the total species recorded). These species are a mix of migrants, birds flying over the site, occasional visitors or those wintering on site in very low numbers. Eleven of these species have been recorded on site during at least one previous winter survey. The other nine species were new records for the site. Table 4 lists those species recorded on two or fewer survey visits.

Table 4 List of species recorded on two or fewer survey visits

Species					
Canada goose	Eurasian wigeon	Pintail	Garganey	Little grebe	Red kite
Water rail	Black-tailed godwit	Greenshank	Knot	Barn owl	Little owl
Short-eared owl	Barn swallow	House martin	Ring ouzel	Northern wheatear	Yellow wagtail
Brambling	Lesser redpoll				

- 3.9 Of the species recorded on two or fewer occasions five are red list species and six are included on the amber list. Little grebe (*Tachybaptus ruficollis*), garganey (*Anas querquedula*), knot (*Calidris canutus*), greenshank (*Tringa nebularia*), short-eared owl (*Asio flammeus*), little owl (*Athene noctua*), ring ouzel (*Turdus torquatus*), yellow wagtail (*Montacilla flava*) and brambling (*Fringilla montifringilla*) were recorded on site for the first time.
- 3.10 Six species have only been recorded in the 2017/18 survey period: spoonbill (*Platalea leucorodia*), ruff (*Calidris pugnax*), spotted redshank (*Tringa erythropus*), jack snipe (*Lymnocyptes minimus*), yellow-browed warbler (*Phylloscopus inornatus*) and bullfinch (*Pyrrhula pyrrhula*). One species has only been recorded in the 2018/19 survey period: avocet (*Recurvirostra avosetta*).
- 3.11 Eurasian white-fronted goose (*Anser albifrons albifrons*), barnacle goose (*Branta leucopsis*), cattle egret (*Bubulcus ibis*), little ringed plover (*Charadrius dubius*), sand martin (*Riparia riparia*), blackcap (*Sylvia atricapilla*) and Richard's pipit (*Anthus richardi*) have only been recorded on site during the 2020/21 survey period.
- 3.12 The remaining thirty two species were recorded on between three and eight of the survey visits. This includes six red list species and fifteen included on the amber list. These species include raptors such as peregrine (*Falco peregrinus*), marsh harrier (*Circus aeruginosus*) and merlin (*Falco columbarius*). Species regularly using the site for foraging including little egret (*Egretta garzetta*), common shelduck (*Tadorna tadorna*), shoveler (*Anas clypeata*) and mute swan (*Cygnus olor*). It also encompasses a large number of species wintering within the survey area at low densities such as green sandpiper (*Tringa ochropus*), common

snipe (*Gallinago gallinago*), yellowhammer (*Emberiza citronella*), reed bunting (*Emberiza schoeniclus*) and Cetti's warbler (*Cettia cetti*), or those present on site sporadically such as common redshank (*Tringa totanus*), dunlin (*Calidris alpina*), oystercatcher (*Haematopus ostralegus*), raven (*Corvus corax*), fieldfare (*Turdus pilaris*) and kingfisher (*Alcedo atthis*).

- 3.13 Table 5 shows the twenty most numerous species recorded during the surveys ranked by the total number of birds recorded over all twelve visits. Woodpigeon (*Columba palumbus*) were the most numerous, with large numbers recorded on every survey visit. Golden plover and lapwing were frequently recorded flying over the site or roosting on ploughed fields. Common starling (*Sturnus vulgaris*) were also very abundant, a reflection of the large wintering populations in the area. Stock dove (*Columba oenas*) were present in good numbers throughout the winter, with sizable flocks recorded feeding on site and flying over the site.
- 3.14 Very few brent geese were recorded feeding on site this winter with most records relating to flocks moving between Medmerry and Pagham Harbour. Eurasian teal (*Anas crecca*) were much higher than recorded during the winter 2020/21 due to the resumption of supplementary feeding of the flight ponds.

Table 5 Twenty most numerous species recorded at Selsey during wintering bird surveys

Species	No of surveys recorded	Peak count	Date peak count	Total number recorded
Woodpigeon*	12	1011	20/12/21	7385
Golden plover*	12	1393	19/02/22	5146
Common starling*	12	757	19/10/21	3230
Lapwing*	11	595	06/12/21	2000
Stock dove*	12	275	21/01/21	1976
Black-headed gull*	12	159	19/10/21 and 19/02/22	1141
Eurasian teal	12	393	19/02/22	1039
Brent goose*	5	503	20/12/21	974
Meadow pipit*	12	163	21/03/22	799
Red-legged partridge*	12	187	08/10/21	647
Skylark*	12	165	19/10/21	633
Carrion crow*	12	100	05/11/21	608
Rook	12	111	21/01/22	490
Goldfinch	12	81	19/11/21	428
Herring gull*	12	47	21/03/22	382
Magpie*	12	40	08/10/21 & 19/11/21	321
Mallard	12	56	05/11/21	302
Curlew*	9	78	03/01/22	260
Linnet*	7	130	08/10/21	254
Jackdaw	11	38	05/11/21	206

* Species that have occurred in the twenty most numerous species recorded on site in each of the four wintering bird surveys

- 3.15 Table 5 shows that 30% of the most numerous wintering species are those associated with wintering populations in Pagham Harbour and Medmerry (brent goose, Eurasian teal, mallard (*Anas platyrhynchos*), lapwing, golden plover and curlew. Eurasian teal numbers were back to levels recorded in the winters of 2017/18 and 2018/19 confirming the effectiveness of the supplementary feeding around the flight ponds in attracting Eurasian teal to the site. Mallard numbers were also higher this winter than recorded over the 2020/21 winter period, probably for the same reason.
- 3.16 Woodpigeon were particularly numerous over the winter with large flocks recorded widely across the site. These flocks were very mobile and some double-counting may have occurred. Herring gull (*Larus argentatus*) and black-headed gull (*Chroicocephalus ridibundus*) records relate mainly to birds flying across the site with only one sizable flock of black-headed gull noted feeding on site over the winter.
- 3.17 The resumption of supplementary feeding at the flight ponds appeared to boost stock dove numbers with large flocks noted around both flight ponds throughout the winter period. The wintering populations of meadow pipit (*Anthus pratensis*) and skylark (*Alauda arvensis*) were relatively modest.
- 3.18 Common starling (*Sturnus vulgaris*), rook (*Corvus frugilegus*) and jackdaw (*Corvus monedula*) records largely related to flocks flying over the site.
- 3.19 Over the four winter seasons surveyed there have been only minor changes in the composition of the twenty most numerous species recorded across the site. Fifteen species have occurred in the twenty most numerous species in each winter period. It is highly likely that, had shooting not been suspended during the winter of 2020/21 and feeding of the flight ponds had occurred as normal, Eurasian teal would also feature on the list. These species are marked with an asterix in table 5.

4.0 Assessment

- 4.1 This assessment considers the significance of the birds recorded at Selsey. In order to provide context, the wintering bird populations on site are considered against the wider wintering populations within the county. The main data sources used for this are Sussex Bird Reports and WEBS data for Pagham Harbour and Medmerry. The assessment focuses mainly on those species of conservation concern (red and amber list species) recorded during the survey. Records of scarce wintering species within the county are also considered, even if the species concerned is not of wider conservation concern. The definition of scarce is taken from the criteria used in the Sussex Bird Report as set out in Table 1. The field names used in the assessment are shown in Figure 2.
- 4.2 The size of the county wintering population for each species is taken from the Sussex bird Report. Where species are resident with numbers augmented by winter visitors the resident population size has been used as the baseline for assessment. As the size of the wintering population will vary each year depending on factors such as severity of winter, this precautionary approach will tend to underestimate the size of the overall wintering population.
- 4.3 The importance of the wintering bird populations has been assessed at five levels: national, regional, county, district and local. A nationally important population relates to a significant proportion of the SPA population occurring on site. A regionally important population will contain a significant proportion of the wintering population of birds within the counties of Hampshire, Sussex and Kent. A population of county importance will support a significant proportion of the wintering population of a species within Sussex, or notable populations of species of conservation concern. Populations of district importance are those considered to be significant in a localised area (in this case the local authority area) and local populations are significant at a parish level.
- 4.4 The distribution maps only show birds recorded feeding or roosting on site. Records of birds flying over the site have not been included on these maps but are shown on the field maps.

Geese, swans, ducks and grebes

- 4.5 Brent geese were only recorded feeding on site on two occasions, a single bird on Norton Corner (5/11/21) and 13 birds on Slurry Farm in December (see Figure 3). All other records relate to birds flying across the site between Pagham Harbour and Medmerry. The lack of records this year is in contrast to the previous winter when birds were recorded feeding on site on eight occasions with flocks of c1800 birds recorded on site in February 2021. The peak count of brent geese using the site represents less than 1% of the current wintering flock within Pagham Harbour (5 yr average 2889 birds (2015/16 to 2019/20)). Previous surveys have shown the site has a role in supporting a nationally important wintering brent

goose population, but site use varies considerably year-to-year, probably in response to cropping cycles.

- 4.6 A pair of Canada geese (*Branta canadensis*) were recorded on the banks of the new irrigation reservoir in March. This record is not considered to be of any conservation significance.
- 4.7 Very small numbers of mute swan were present on site from late December onwards, with birds recorded feeding Pole Field, Slurry Farm, Long Coles and Norton Corner during this period. Birds were also noted using Hogs Marsh reservoirs. Shelduck were recorded on site on seven occasions, most consistently around Hogs Marsh Reservoirs and the associated irrigation reservoirs. Numbers around Hogs Marsh reservoir were generally low (3 or fewer birds) until March when a peak count of 11 birds was made. There were several records of birds flying across the site.
- 4.8 Shoveler were recorded on six visits with birds most often recorded Hogs Marsh reservoirs or associated irrigation reservoirs (maximum count 4 birds), with birds recorded on the western flight ponds on two occasions (maximum count 3 birds). Other records relate to birds flying across the site. The maximum count of shoveler using the site over the winter period was five birds (21/03/22).
- 4.9 Pintail (*Anas acuta*) were recorded on site on one occasion (19/02/22) when a pair were on Pangham Marsh with c220 Eurasian teal (see below). The only other record relates to a flock of 24 birds flying across the site in October. A juvenile garganey was noted on Hogs Marsh reservoir during late autumn (19/10/21); this record relates to a passage bird. This is the first time garganey has been recorded on site during the wintering bird surveys.
- 4.10 Gadwall (*Mareca strepera*) were recorded using the western flight pond on four survey visits. Twelve birds were recorded there in November, but other counts were of 3 or fewer birds. A pair were noted on Hogs Marsh reservoirs during the first March survey, with four birds present during the late March survey. A single Eurasian wigeon (*Mareca penelope*) was noted on the western flight pond during two survey visits in the early winter period. No further records of Eurasian wigeon were made.
- 4.11 Tufted duck (*Aythya fuligula*) were noted on Hogs Marsh reservoirs during the late winter period. The first record was of four birds on 19/02/22 with up to three birds noted there during the March surveys.
- 4.12 None of the species discussed in paragraphs 4.6 to 4.11 occurred on site in any significant numbers and the site is of local importance only for these species.
- 4.13 Eurasian teal were regularly recorded on site in variable numbers throughout the winter (see figure 4). Numbers peaked 19 February when a minimum of c288 birds were noted (68 birds on the western flight pond and c220 on a flooded area of Pangham Marsh). A flock of c100 Eurasian teal were also flushed from the eastern flight pond during this survey but

were considered to have resettled on Pangham Marsh. A flock of 14 Eurasian teal were recorded using Pangham Marsh on 6/12/21.

- 4.14 As recorded in previous surveys, the western flight pond consistently held Eurasian teal over the winter (supplementary feeding had resumed at both flight ponds this winter following a pause in shooting activity over the winter of 2020/21). A peak count of 154 birds using the western flight pond was made 06/12/21, 126 birds were recorded 05/11/21. Other counts on the western flight pond ranged between 4 and 86 over the survey period; counts in excess of 50 birds were only made on five of the twelve survey visits.
- 4.15 The eastern flight pond mainly supported small numbers of Eurasian teal, with counts of less than 20 birds made on six of the twelve survey visits. The highest count of the winter was a flock of c100 birds recorded 19/02/22 (see para 4.13). No other significant concentration of Eurasian teal were recorded on site over the winter.
- 4.16 The peak Eurasian teal count represented about 41% of the current Pagham Harbour wintering population (5 yr average 697 birds (2015/16 to 2019/20)); typical counts over the winter period suggest numbers around the flight ponds fluctuate between 1% and 20% of the Pagham Harbour population. Monitoring over the winter of 2020/21 demonstrated the role the supplementary feeding has in attracting Eurasian teal to the flight ponds. The site is considered to have a role in supporting a wintering Eurasian teal population of county importance when supplementary feeding is provided and of local importance when ponds are not fed.
- 4.17 Variable numbers of mallard were recorded during the survey with a maximum count of 56 birds (5 November). Birds congregated in the largest numbers on the western flight pond and Park Farm reservoirs (see figure 5). The flooded area on Pangham Marsh also provided attractive to this species. The peak count represent around 35% of the wintering population within Pagham Harbour, although for most survey visits fewer than 30 birds were recorded. The site is considered to have a role in supporting a wintering mallard population of district importance.
- 4.18 A little grebe was recorded on Hogs Marsh reservoir 19/02/22 and on the western flight pond 21/03/22. It is thought these records relate to the same individual. This is the first time this species has been recorded on the site during the winter period. This record is not considered to be of any conservation significance.

Hérons, egret and allies

- 4.19 Little egret was only consistently recorded feeding along ditches surrounding Pangham Marsh within the survey area (see figure 6). A single bird was noted in this area on five survey visits. Birds were also noted on Pangham Marsh 2 and feeding in the ditch between Upper Chain Bridge and Lower Chain Bridge during the winter.

- 4.20 Grey heron (*Ardea cinerea*) were recorded feeding in ditches and around the flight ponds, the numbers recorded varied between 0 and 5 birds per visit. The site provides supporting habitat for wintering little egret and grey heron populations that are considered to be of local importance.
- 4.21 Coot (*Fulica atra*) were recorded on Hogs Marsh reservoirs and Park Farm reservoir throughout the survey period, twelve birds were present on Hogs Marsh reservoirs in early February. Moorhen (*Gallinula chloropus*) were recorded in ditches and on other waterbodies across the site, with the wintering population estimated to be in the region of ten birds. Water rail (*Rallus aquaticus*) were heard calling during both November surveys; one bird from a reedy area close to the eastern flight ponds and the second from wet woodland east of Long Slip (outside the survey area). It is not clear if these records relate to migrants or over-wintering individuals. These records are not considered to be of any conservation significance.

Gamebirds

- 4.22 Large numbers of red-legged partridge (*Alectoris rufa*) and small numbers of common pheasant (*Phasianus colchicus*) are present on site, a result of the shooting tenancy. Grey partridge (*Perdix perdix*) was not recorded during the surveys, although a covey of four birds were recorded on fields adjacent to the site (Medmerry) in January 2022. The released populations of pheasant and red-legged partridge are of no conservation significance.

Raptors

- 4.23 Kestrel (*Falco tinnunculus*), sparrowhawk (*Accipiter nisus*) and common buzzard (*Buteo buteo*) were all regularly recorded during the survey hunting across the site. The site is considered to be of local importance for these species.
- 4.24 Peregrine were recorded on four occasions: once in November, December, February and March. The birds were aged as adults on three occasions (November, December and February). A sub-adult bird was watch feeding on a woodpigeon in March. Adult birds were seen in two different locations in February survey, these were possibly different birds. Birds were present within Pagham Harbour, regularly using the tern islands, throughout the survey period. The site would appear to form part of the home range of these birds and has a role in supporting a population of district importance.
- 4.25 Merlin was recorded on three consecutive surveys: 21/01/22, 02/02/22 and 19/02/22. The first sighting related to a bird, considered to be a female perched on the edge of Church Norton East that flew towards Pagham Harbour. The second two sightings relate to a bird considered to be an immature male seen over fields west of the western flight ponds. In February a merlin was regularly recorded hunting birds using the feeders at Pagham Harbour RSPB and these sightings may relate to that bird. Over the four seasons of survey the use of the site by merlin appears to

be sporadic and the site is not considered to be any significant value for this species.

- 4.26 Marsh harrier were recorded during both December surveys flying across the site. A male bird was noted hunting over Home Farm in late March (a bird with damaged primaries that had been present around Pagham Harbour for some time). Marsh harrier were present around Pagham Harbour throughout the winter period. Single red kite (*Milvus milvus*) were noted drifting over the site in November and again in late March. Over the three seasons of survey the use of the site by marsh harrier appears to be sporadic and the site is not considered to be any significant value for this species. The red kite records are considered to relate to wandering non-breeding birds.

Waders

- 4.27 Oystercatcher were recorded during three surveys (see figure 7). Single birds were noted using Long Slip, Park Field and Pangham Marsh 2 on different dates. Unlike the previous winter (2020/21) no regular use of the fields around Park Farm was recorded. The use of the site by oystercatcher over the winter of 2021/22 is not considered to be significant, even at a local level.
- 4.28 Curlew were recorded feeding on site through the survey period in variable numbers (see figure 10). Peak counts were 74 birds on Pole Field 03/01/22, 42 birds on Woolhouse Marsh 08/10/21 and 21 Pangham Marsh 19/02/22. Over the survey period birds were recorded, four times feeding on Woolhouse Marsh and Pangham Marsh, three times on Pangham Marsh 2 and once on Pole Field, Copse Field and Long Slip.
- 4.29 The peak count of 78 curlew during the survey period represents approximately 23% of the wintering population in Pagham Harbour (5 yr average 337 birds (2015/16 to 2019/20)). The survey demonstrated that the fields (both arable and grassland) around the harbour provide foraging opportunities for curlew over the high tide period. The site has a role in supporting a wintering population of district importance.
- 4.30 Lapwing flocks on site of 100 birds or more were recorded on four occasions (see figure 9). A count of 582 birds on Kennets was the highest of the winter period (06/12/21) with 109 birds on Kennets 19/02/22 and 101 21/01/22. The only other count in excess of 100 birds was from the adjacent field (Home Farm) where 330 birds were recorded 02/02/22. Fifty five birds were recorded on Rookery 02/02/22 and 31 birds were noted on Kennets 03/01/22. Flocks of birds were also recorded flying across the site throughout the survey period. In March pairs of birds were noted on Pangham Marsh and Pangham Marsh 2 where birds were beginning to engage in territorial activity.
- 4.31 The survey findings indicate lapwing are attracted to large ploughed fields adjacent to Pagham Harbour for roosting. The peak count of the winter period represents approximately 23% of the wintering population in Pagham Harbour (5 yr average 2514 birds (2015/16 to 2019/20)). The site

is considered to have a role in supporting a wintering lapwing population of district importance but is probably not core foraging habitat.

- 4.32 Golden plover were recorded using the site throughout the survey period with Home Farm supporting the largest flock recorded during the surveys 1097 birds 02/02/22. Settled flocks of 69 and 68 birds, along with a group of 5 birds, were also recorded on Home Farm during the surveys. Other significant settled flocks were 332 on Church Norton West (21/03/22), 287 on Kennets (19/02/22), c200 on Long Coles (19/02/22), 100 on Kennets (19/10/21) and 95 on Kennets (06/12/21). The only other significant settled flock was 57 birds on Long Coles 03/03/22 (see figure 8). Birds were also regularly recorded flying over the site. Flocks of several hundred birds were recorded flying across the site during the survey period.
- 4.33 The survey findings show that golden plover were regularly using the site throughout the winter, mainly for roosting. This species appears to favour areas of ploughed land present on site for roosting and are generally found on the largest fields within the site. The site provides foraging and roosting opportunities for the Pagham Harbour population depending on the site conditions. Large flocks were regularly recorded flying over the site between Pagham Harbour and Medmerry which resulted in high numbers being recorded. It should be noted that as golden plover are not strongly associated with inter-tidal habitats and the WEBS counts often under-record populations. The current 5-year average peak count for golden plover in Pagham Harbour is only 384 birds. The numbers recorded during surveys indicate that this figure is a substantial under-estimation of the population wintering in the Pagham/Medmerry area. The site is considered to have a role in supporting a wintering golden plover population of district importance but is probably not core foraging habitat.
- 4.34 Grey plover (*Pluvialis squatarola*) were recorded feeding on site on two occasions. Single birds were recorded on Church Norton East and Long Slip 06/12/21 and seven were recorded amongst a flock of over 250 golden plover on Kennets 19/02/22. There were also two recorded of small groups of birds flying across the site. Previous surveys have shown this species, which is primarily associated with intertidal habitats, very occasionally makes use fields close to the harbour over high water.
- 4.35 Common snipe were occasionally flushed from fields and ditches across the site (see figure 11) throughout the survey period. The peak count of 12 birds occurred in early December and coincided with a very high tide. This count include birds that appeared to have been displaced from the saltmarsh within Pagham Harbour flying over the site. Typically counts were only of between one and three birds.
- 4.36 The survey results suggest that the site supports very low numbers of common snipe over the winter period and that the wintering population is of no more than local importance.
- 4.37 A single greenshank was recorded circling Hogs Marsh reservoirs before heading towards Medmerry (08/10/21). A flock of 23 knot flew over 19

Acres 20/12/22. Small flocks of black-tailed godwit (*Limosa limosa*) were recorded flying over the site on two dates: 10 birds flew over 19 Acres 20/12/21 and 7 birds flew west over Ferry 2 in late February. The site is not considered to be of any significant value to these species.

- 4.38 Common redshank were recorded feeding on site on one occasion. A single bird was recorded on Pangham Marsh (16/12/21). A single bird was recorded over 19 Acres in late January and 6 birds flew over Pangham Marsh in late March before settling in Pagham Harbour again. Green sandpiper was only recorded on three survey visits (max count 2 birds); all records relate to birds flying over the site. It does not appear the site supported any wintering green sandpiper this year. Dunlin were recorded flying over the site on two occasions (both single birds) and a bird was mixed in with a lapwing and golden plover flock on Kennets in late February.
- 4.39 The habitats within the site remain suitable habitat for wintering green sandpiper, although no birds were recorded on site this winter. The site has previously supported a wintering population considered to be of district importance. The site does not appear to be of any significant value to wintering common redshank or dunlin.

Gulls

- 4.40 Relatively low numbers of gulls were recorded within the survey area, with only peak counts of black-headed gull numbers exceeding 100 birds. Counts of over 100 black-headed gulls were made during five surveys (maximum count 159 birds 19/10/21 and 19/02/22). The next most numerous species on site was herring gull with peak counts between 18 and 47 birds. Great black-backed gull (*Larus marinus*) were regularly recorded flying over the site or roosting on arable fields (maximum count 15 birds)
- 4.41 The black-headed gull activity mainly consisted of birds feeding on the arable fields (e.g. 94 birds following a tractor 19/10/21) or flying over the site (94 flying west of solar farm 19/02/22). Most of the herring gull activity related to birds flying over the site. Small numbers of Mediterranean gull (*Larus melanocephalus*) were present throughout the winter period, with all peaks counts being of 10 birds or fewer. Very low numbers of lesser black-backed gull (*Larus fuscus*) and common gull (*Larus canus*) were recorded, with peak counts of two and four birds respectively.
- 4.42 The numbers of gulls recorded at during the surveys are not exceptional, especially given the coastal location. The site is considered to be of local importance only for wintering gulls.

Pigeons and doves

- 4.43 Woodpigeon are very abundant across the site with counts ranging between 287 and 1011 birds during the survey period. Flocks of over 100 birds were recorded on 9 of the 12 surveys and on three dates two flocks in excess of 100 birds were noted. The largest flocks recorded consisted

of c200 birds. The birds were very mobile and this may have led to some double-counting, however, it was obvious that the wintering population was larger than during the previous winters.

- 4.44 Stock dove (*Columba oenas*) numbers were once again high with birds attracted to the barley dump at the western flight ponds and the feeding area at the eastern flight pond. The wintering population was in excess of 100 birds from late November until the end of March. The peak count of 275 birds was made in late January, but counts in excess of 200 birds were also made in December, February and March. Small numbers of collard dove (*Streptopelia decaocto*) and feral pigeon (*Columba livia*) were recorded using the site.
- 4.45 The wintering population of stock dove are considered to be of district importance. The wintering populations of woodpigeon is considered to be of local importance. The records of feral pigeon and collard dove are of no conservation significance.

Owls

- 4.46 A barn owl was recorded hunting over land west of 19 Acres and Upper Chain Bridge (Medmerry), outside of the survey area during the early January survey (03/01/22). After the survey concluded the barn owl was watched hunting within the site over Upper and Lower Chain Bridge. The grassy field margins and ditch and rife banks provide suitable foraging habitat for barn owl. It is likely that birds make use of the site for foraging. The site is considered to be of local importance for this species.
- 4.47 A short-eared owl was recorded circling Upper and Lower Chain Bridge as it tried to escape the attention of local gulls and crows in early November (05/11/21). Eventually the owl appeared to go to roost in an area of scrubby land east of Lower Chain Bridge. The field is accessible to the public and it is possible the bird was disturbed from a roost site in the field prior to be spotted. This record is likely to relate to a migrant bird and it not considered to be of any conservation significance.
- 4.48 A little owl was heard calling from stables just beyond the site boundary at Park Farm in early March (03/03/22). This species is infrequently noted in this area by local birdwatchers and it is likely that this record relates to a resident pair. The fields around Park Farm may be used by foraging little owl and the site is considered to be of local importance for this species.

Woodpeckers and kingfisher

- 4.49 Kingfisher were recorded making sporadic use of the ditches and rifes on site for feeding; single birds were recorded on three surveys. The site and surrounding area supports two or three pairs of green woodpecker (*Picus viridus*) and at least two pairs of great spotted woodpecker were recorded. The populations of these species wintering on site are considered to be of local importance only.

Corvids

- 4.50 Magpie (*Pica pica*) numbers typically ranged between 24 and 40 birds during the survey period with groups of up to 14 birds recorded. Jackdaw numbers were generally low, with small numbers recorded flying over the site and a maximum count of c30 birds feeding on Long Coles. Rook numbers peaked in late January/early February when maximum counts of over 100 birds were made, including a flock of 55 birds. Generally maximum counts were less than 40 birds with low numbers of birds using the site. Carrion crow (*Corvus corone corone*) numbers ranged between 14 and 100 birds with flocks of up to 36 birds recorded. There appears to be a substantial corvid roost in the off-site woodland area east of Long Slip and Copse Field. Jay (*Garrulus glandarius*) were recorded in low numbers from woodland within and around the survey area, with a maximum count of 5 birds. A count of 10 jay in early October (08/10/21) coincided with a period of autumn passage.
- 4.51 Raven were recorded flying over the site on three different dates. A pair were recorded over Drift Road (5/11/21) and around the eastern flight ponds (21/01/22). A single bird was recorded flying over Church Norton East in early March. It is possible this species is now becoming established in the local area.
- 4.52 The populations of corvids recorded on site are considered to be of local importance only. The records of raven are noteworthy given that this species is scarce breeding resident in Sussex. However, it is not considered that this record is of any particular conservation significance.

Crests and tits

- 4.53 Very small numbers of goldcrest (*Regulus regulus*) were from scrub, hedgerows, woodland and gardens across the survey area. Blue tit (*Cyanistes caeruleus*), great tit (*Parus major*) and long-tailed tit (*Aegithalos caudatus*) were all recorded over the survey period. These populations are considered to be of local importance only.

Wren and dunnock

- 4.54 Wren (*Troglodytes troglodytes*) were recorded during every survey visit with a maximum count of 24 birds. This species is widespread across the site with the wintering population estimated to be a minimum of 20 birds.
- 4.55 Dunnock (*Prunella modularis*) were recorded throughout the survey period, with most maximum counts in single figures. The maximum count was made in early March (13 birds) when territorial activity made this species more obvious. The wintering populations of both species are considered to be of local importance only.

Warblers

- 4.56 Small numbers of chiffchaff (*Phylloscopus collybita*) were recorded in every month except February and are likely to have been present on site throughout the winter period. Peak numbers were recorded in October and late March suggesting passage birds are also using the site. Cetti's warbler was heard singing from ditches near Pangham Marsh, Ferry 2 and Long Slip during the survey.
- 4.57 Small numbers of chiffchaff winter throughout Sussex and Cetti's warbler is an increasing common resident. The wintering populations of all these species is considered to be of local importance only.

Thrushes and starling

- 4.58 The site possibly supports two pairs of mistle thrush (*Turdus viscivorus*) with small numbers of birds infrequently recorded throughout the survey period. Blackbird (*Turdus merula*) numbers were highest throughout November and early December when counts peaked at 27 birds in early November. Although counts fluctuated outside this period the wintering population appeared to be around 20 birds. Song thrush (*Turdus philomelos*) counts were in single figures throughout except for a count of 14 in early December.
- 4.59 Fieldfare were recorded on three occasions, two single figure counts and a count of 18 (group of 9 plus others) in early November. Redwing (*Turdus iliacus*) were only recorded on six survey visits with a peak count of nine birds in early November. The peak counts of fieldfare and redwing occurred on the same day. A male ring ouzel was recorded in a willow between Ferry 1 and Ferry 2 in late March, this record relates to a passage bird.
- 4.60 Large flocks of common starling were observed to the west of the survey area associated with the waste water treatment works. Flocks flying over the site or perching on powerlines and hedgerows within the site provided many of the records of common starling with flock sizes ranging between 90 and 361 birds and peak counts of more than 700 birds on two surveys. A flock of c250 birds on Pangham Marsh 19/02/22 was the only significant flock recorded feeding on site.
- 4.61 The populations of wintering thrushes and starling are considered to be of local importance only. The numbers recorded were generally low, presumably because of the unsuitability of much of site for these species.

Larks, pipits and wagtails

- 4.62 Skylark numbers were highest during October, during the autumn passage period when a peak count of 165 birds was made (19/10/21). This was the only three figure count of the survey period. Although numbers fluctuated over the winter (e.g. 4 birds recorded 20/12/21 and 47 birds 19/02/22) as in previous surveys the site is estimated to have regularly supported 40-60 birds over the winter. Peak counts of meadow

pipit occurred during October and late March, coinciding with the passage period. Counts of over 100 birds were made during these surveys. Fluctuating numbers of meadow pipit were present on site between November and early March with recorded numbers varying between 19 and 81 birds. The wintering population was estimated to be in the region of 60 birds distributed widely across the site.

- 4.63 The wintering population of skylark site during 2021/22 is considered to be of district importance and the wintering population of meadow pipit of local importance.
- 4.64 The site supports a small number of wintering grey wagtail (*Motacilla cinerea*) (max count 2) with the areas around the reservoirs and flooded ground around Park Farm regularly attracting birds. Two passage yellow wagtail were recorded flying over Norton Corner 08/10/21; this is the first time this summer visitor has been recorded during the wintering bird surveys. Pied wagtail (*Motacilla alba yarrellii*) numbers peaked in late November (23 birds), but maximum counts across the site during the winter were mainly in single figures. The wintering grey and pied wagtail population is considered to be of local importance only.

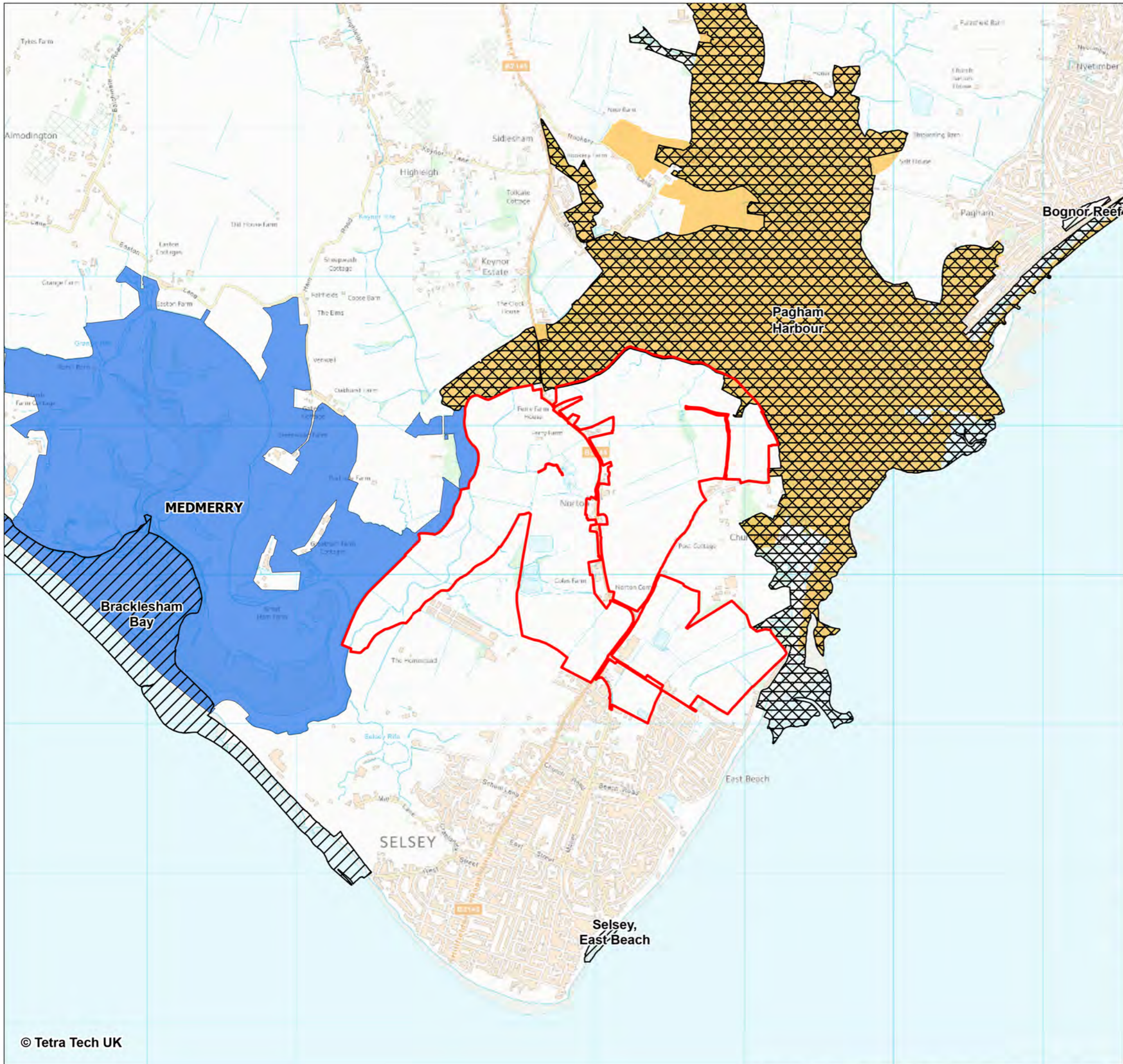
Finches, sparrows and buntings

- 4.65 Linnet (*Linaria cannabina*) were only present on site in notable numbers during the early winter and late winter periods. A flock of c35 feeding on Long Coles (08/10/21) and c30 feeding on Drift Road, with 22 feeding on Long Coles (19/10/21) were the largest flocks recorded on site. A flocks of c90 flew over 19 Acres on (08/10/21). Small numbers were noted on site again during March. Small numbers of finches on passage were recorded including siskin (*Carduelis spinus*), brambling and lesser redpoll (*Carduelis cabaret*).
- 4.66 Chaffinch (*Fringilla coelebs*) and greenfinch (*Carduelis chloris*) counts varied across the survey period with the wintering population estimated to be around 15 to 20 birds. Goldfinch (*Carduelis carduelis*) numbers also fluctuated with a peak counts of 81 birds, more birds were recorded during the early winter period than the late winter period. Flocks of 30 goldfinch were recorded on two separate dates.
- 4.67 The site did not support a significant wintering linnet population over the winter. Flocks of linnet were recorded at Medmerry during the course of the survey. The site is likely to form part of the wintering range of a population of linnet of at least district importance. The populations of other finch species are considered to be of local importance only.
- 4.68 Small numbers of house sparrow (*Passer domesticus*) were recorded during the surveys, mostly associated with human habitation around Park Farm or game feeders. A peak count of 14 birds was made in January, which included a flock of 13 birds in a hedge adjacent to a house. The house sparrow population is considered to be of local importance only.

- 4.69 Reed bunting was regularly recorded throughout the survey period, with between one and two birds noted. Low numbers of yellowhammer were recorded during the early winter period (peak count 11), with no records after early December. These birds were recorded around the solar farm, or close to game feeders.
- 4.70 The small wintering population of reed bunting is considered to be of local importance only. The wintering population of yellowhammer is considered to be of district importance.

5.0 Limitations and further work

- 5.1 The survey route kept to existing public rights of way and field edges. This may have resulted in the under-recording of passerines and certain wader species such as common snipe. The main purpose of the survey was to record ducks, geese and waders using the site so under-recording of passerines utilising the fields for foraging is not considered a significant limitation.
- 5.2 As noted earlier the site is subject to a degree of public access which is not restricted to recognised public rights of way. It is possible that birds feeding or roosting on fields may have been disturbed prior to the surveyor arriving. Normal agricultural activities may also have influenced bird distribution during the surveys, either through displacing birds or attracting them (i.e. following the plough).
- 5.3 Very heavy rain reduced visibility and hampered the use of binoculars and telescopes for brief periods during the survey 06/12/21. A similar situation occurred 19/02/22 with high winds and heavy rain. Smaller birds may have been missed but it is considered larger waders, ducks and geese would still have been detectable by the surveyor during these periods of inclement weather. Comparing results from these surveys to the other surveys did not highlight any discernible differences in numbers and species of waders, ducks and geese recorded.
- 5.4 The surveys were undertaken during daylight hours. It is known that certain wader species will feed at night on arable land, notably golden plover and lapwing. Common snipe will also utilise sites at night and other species such as wigeon may also use grassland areas. It is possible that birds are utilising the site at night.
- 5.5 Surveys over four winters have shown only minor differences in the composition of the wintering bird community on site. The surveys show that the use of the site by some species, notably golden plover and brent geese, depends on the state of the fields and also the availability of other suitable habitat around the harbour. Other wader species and gulls also make temporary use of the fields in hard weather or after surface water flooding.
- 5.6 The Sesley area is monitored daily by an active ornithological group (<https://selseybirder.blogspot.co.uk>). The sightings posted on their website show various records of waders, ducks and geese present within the survey area over the winter period. Were they available, the records of this group would help to identify key areas used by birds for foraging or roosting within the survey area over the winter period.



Wintering bird survey 2021/22
Figure 1: Site Context



-  Estate boundary
-  SSSI - Site of Special Scientific Interest
-  SPA – Special Protection Area
-  Ramsar
-  LNR – Local Nature Reserve
-  RSPB Reserve



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Drawing No. 1
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20 April 2022
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Wintering bird survey 2021/22
Figure 2: Field Names



- Estate boundary
- Solar Farm
- Fields



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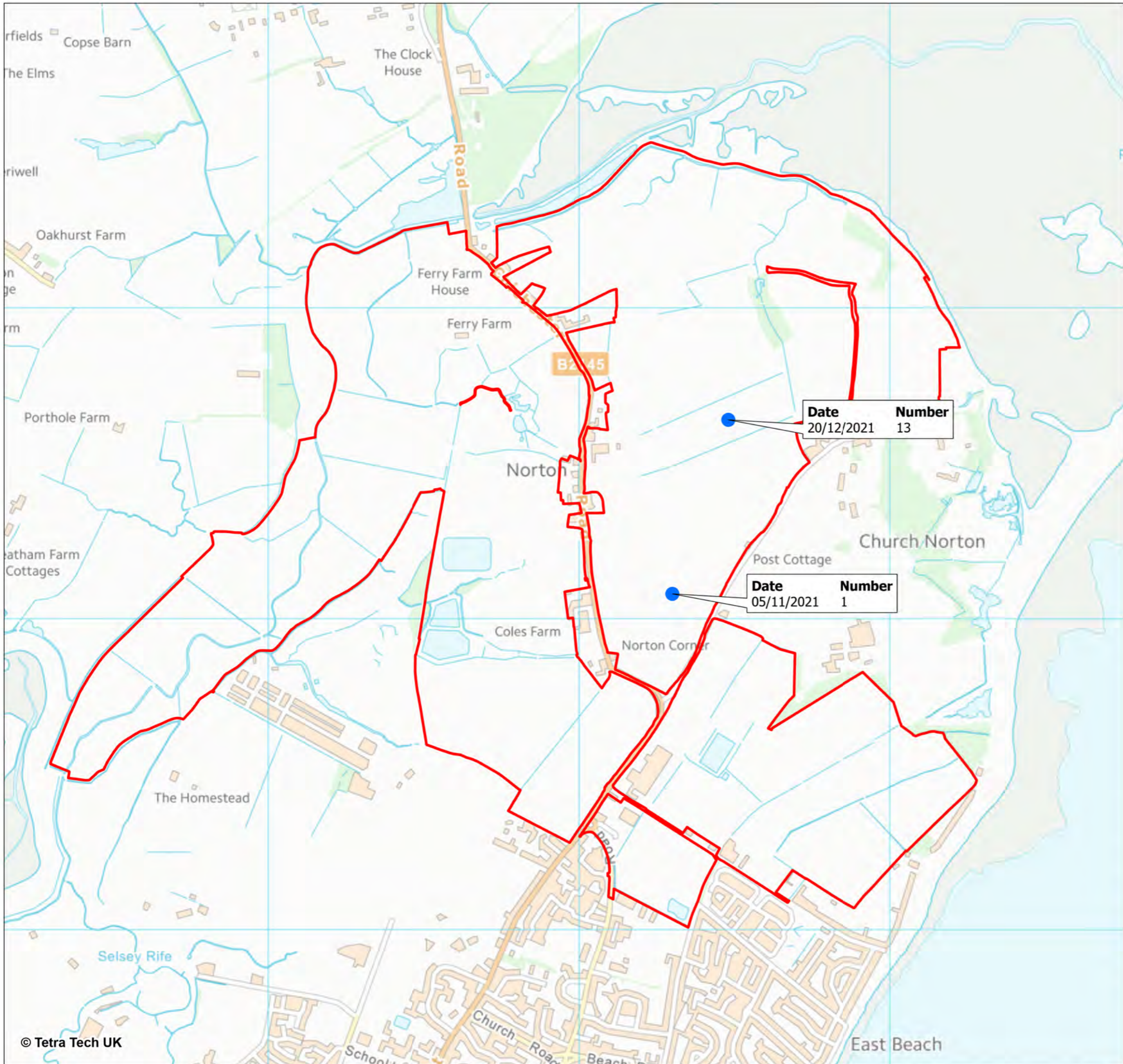
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Wintering bird survey 2021/22
Figure 3: Brent goose sightings



Survey Area

Distribution of sightings over survey period

- 1 - 3 records
- 4 - 6 records
- 7 - 9 records
- 10+ records

Date 20/12/2021 **Number** 13

Date 05/11/2021 **Number** 1



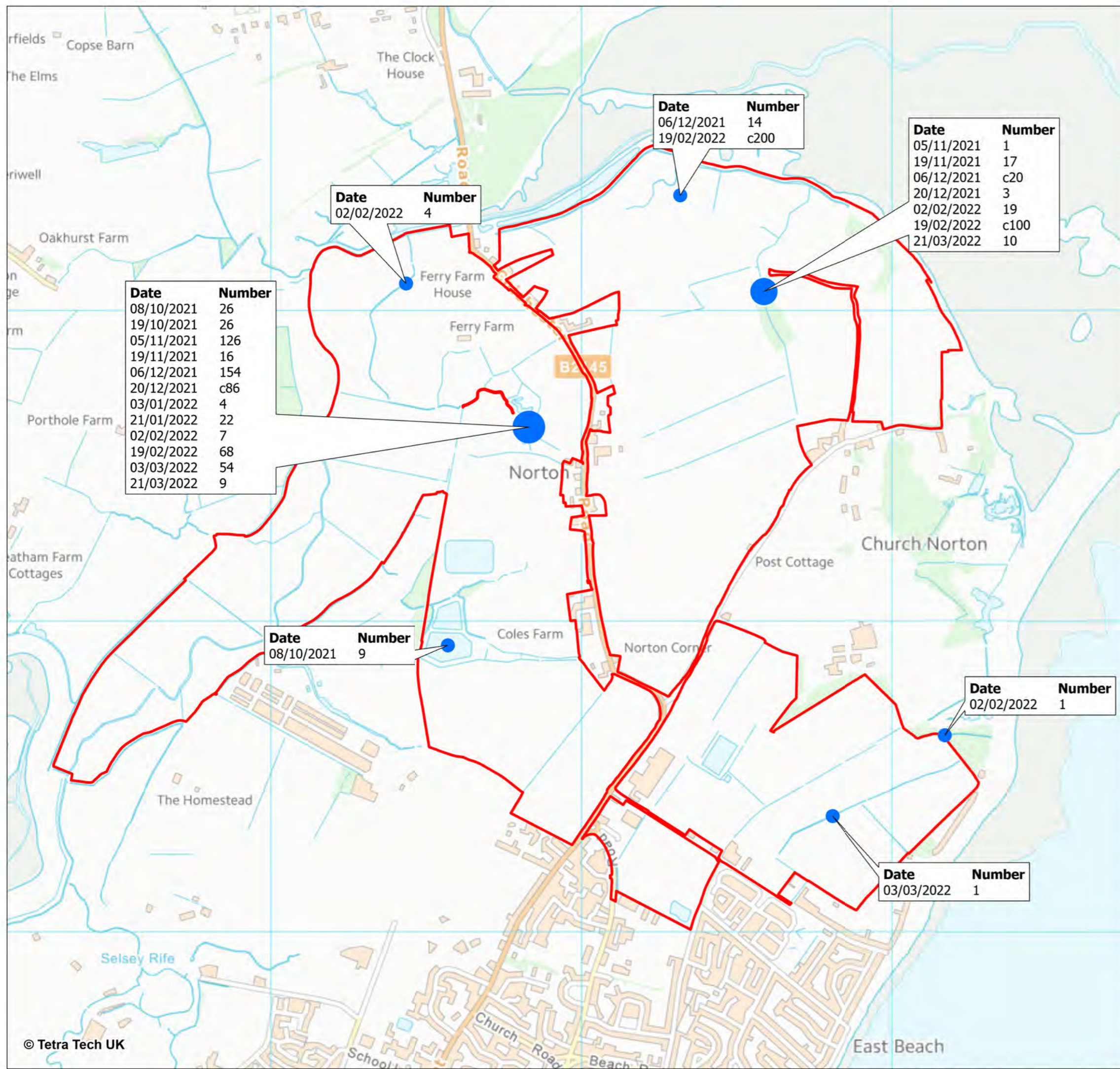
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Wintering bird survey 2021/22
Figure 4: Eurasian teal sightings



- Survey Area
- Distribution of sightings over survey period
- 1 - 3 records
 - 4 - 6 records
 - 7 - 9 records
 - 10+ records



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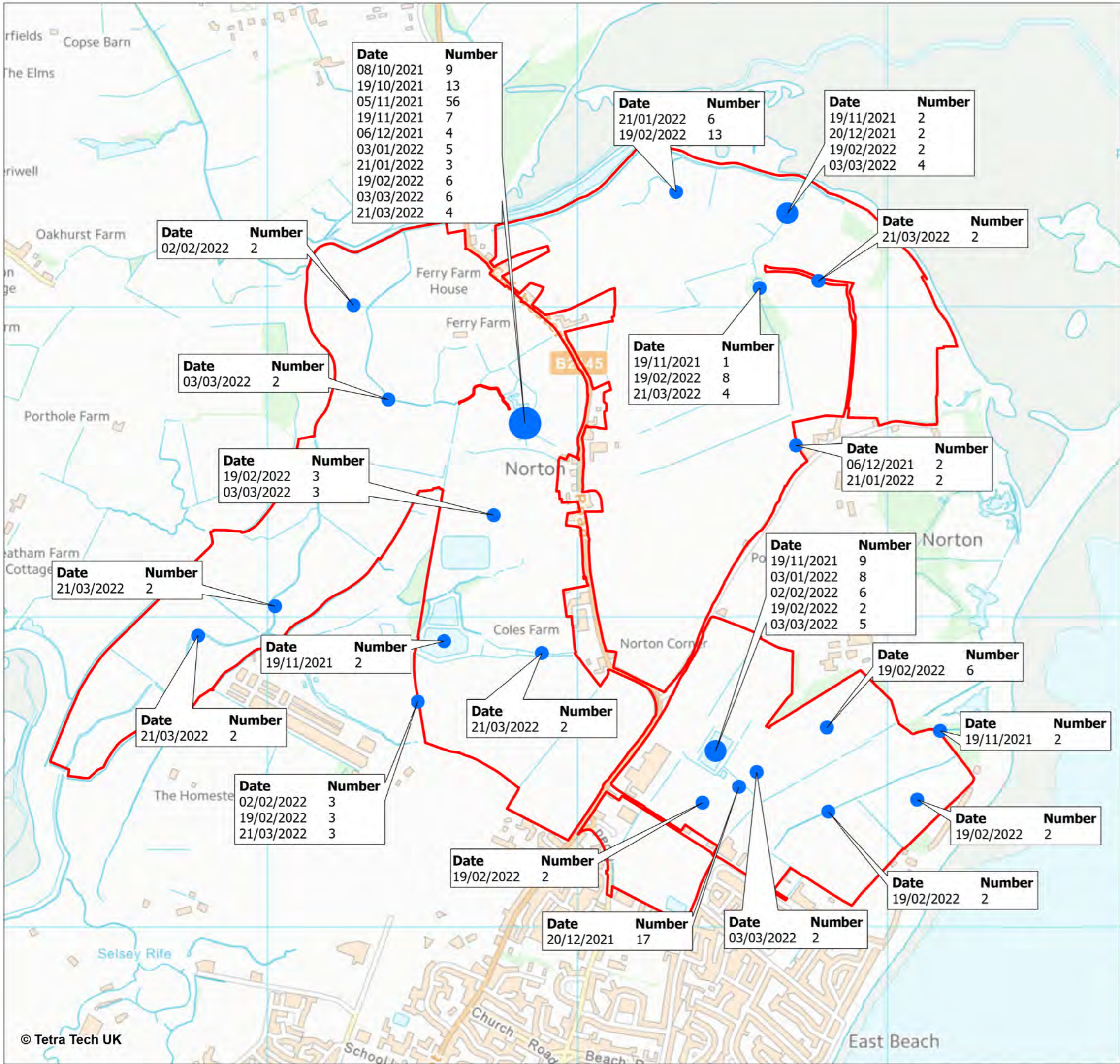
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Figure 5: Mallard sightings



Survey Area

Distribution of sightings over survey period

- 1 - 3 records
- 4 - 6 records
- 7 - 9 records
- 10+ records



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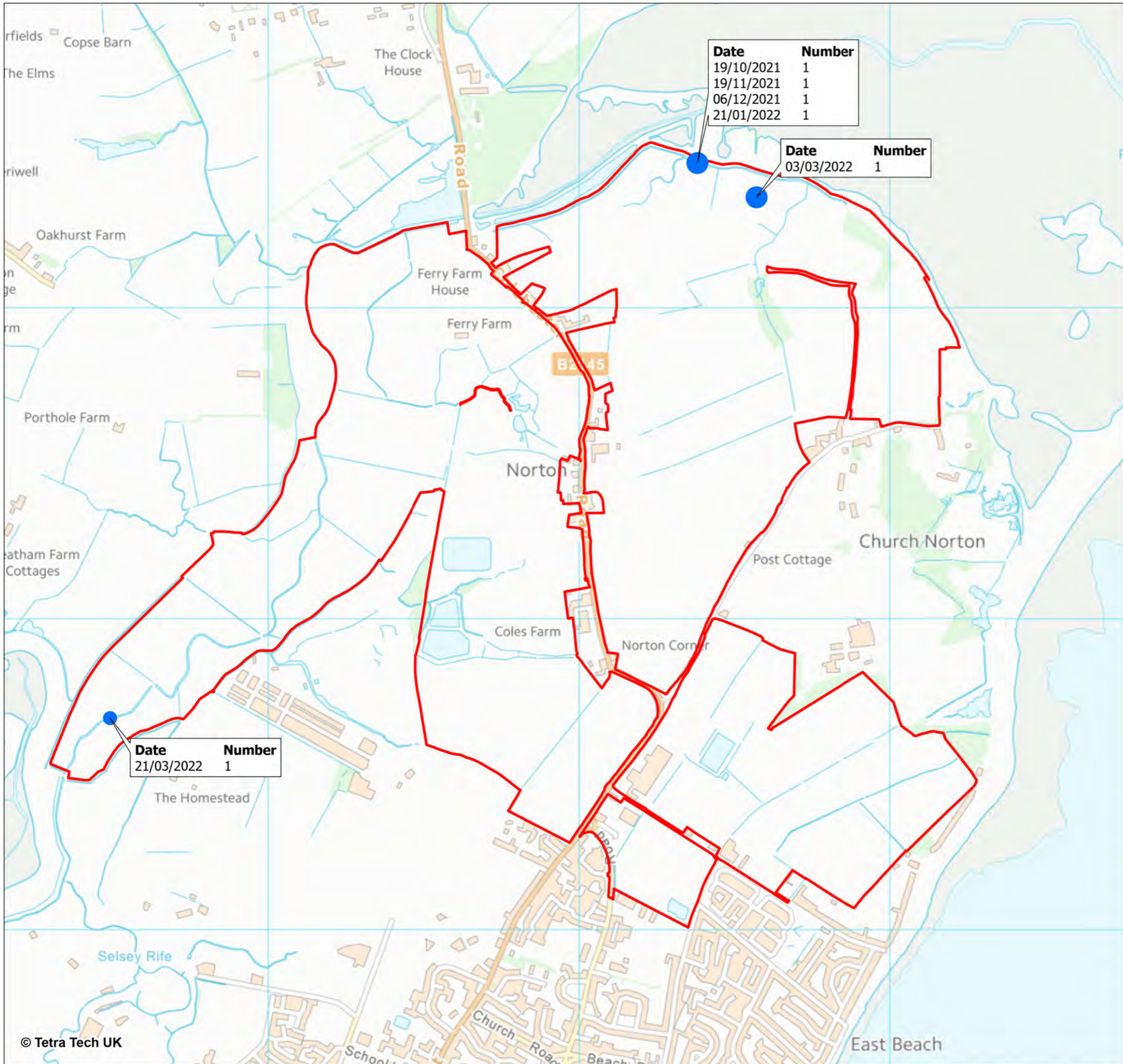
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Wintering bird survey 2021/22
Figure 6: Little egret sightings



Survey Area

Distribution of sightings over survey period

- 1 - 3 records
- 4 - 6 records
- 7 - 9 records
- 10+ records



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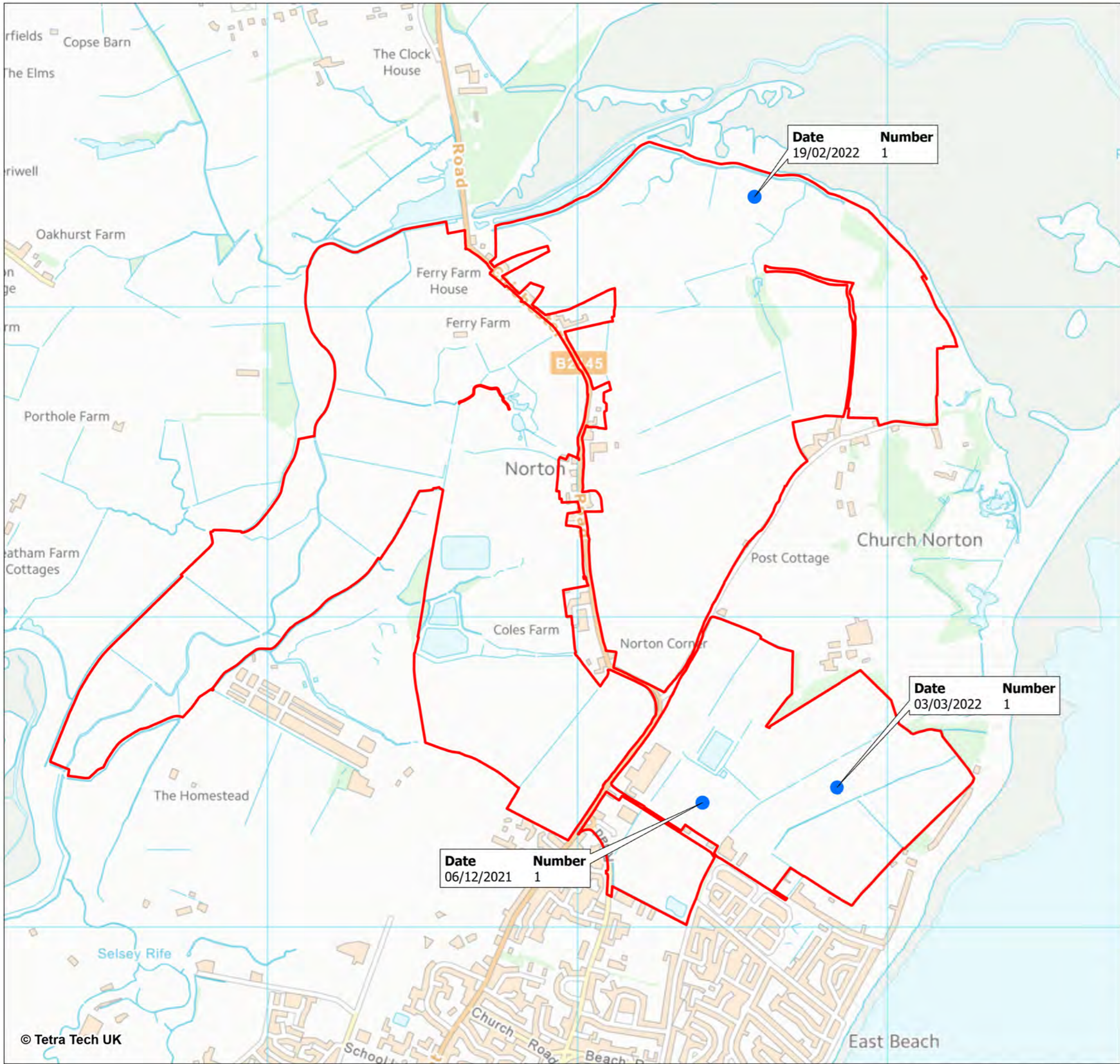
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Wintering bird survey 2021/22
Figure 7: Oystercatcher sightings



Survey Area

Distribution of sightings over survey period

- 1 - 3 records
- 4 - 6 records
- 7 - 9 records
- 10+ records



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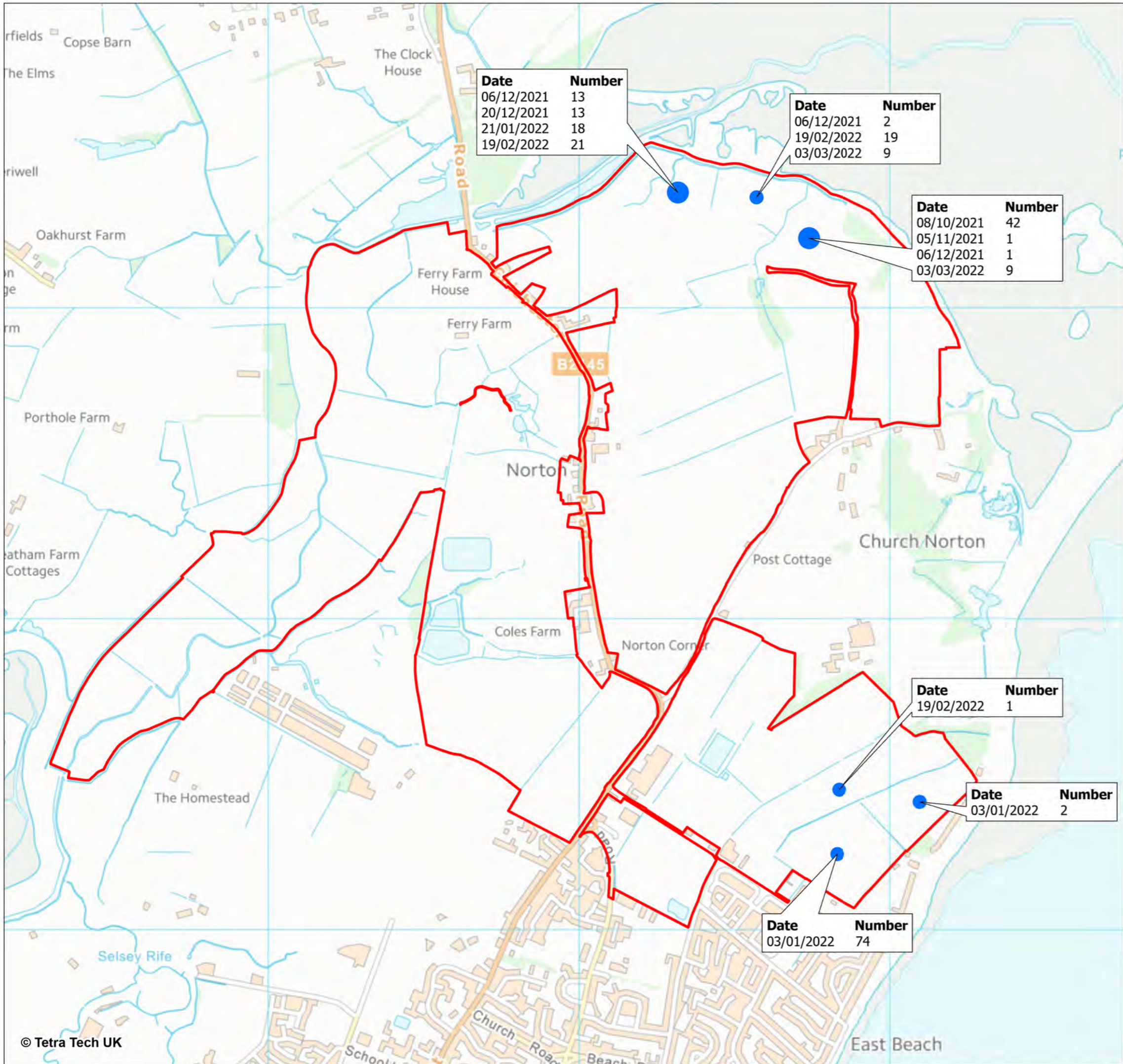
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Wintering bird survey 2021/22
Figure 8: Curlew sightings



Survey Area

Distribution of sightings over survey period

- 1 - 3 records
- 4 - 6 records
- 7 - 9 records
- 10+ records



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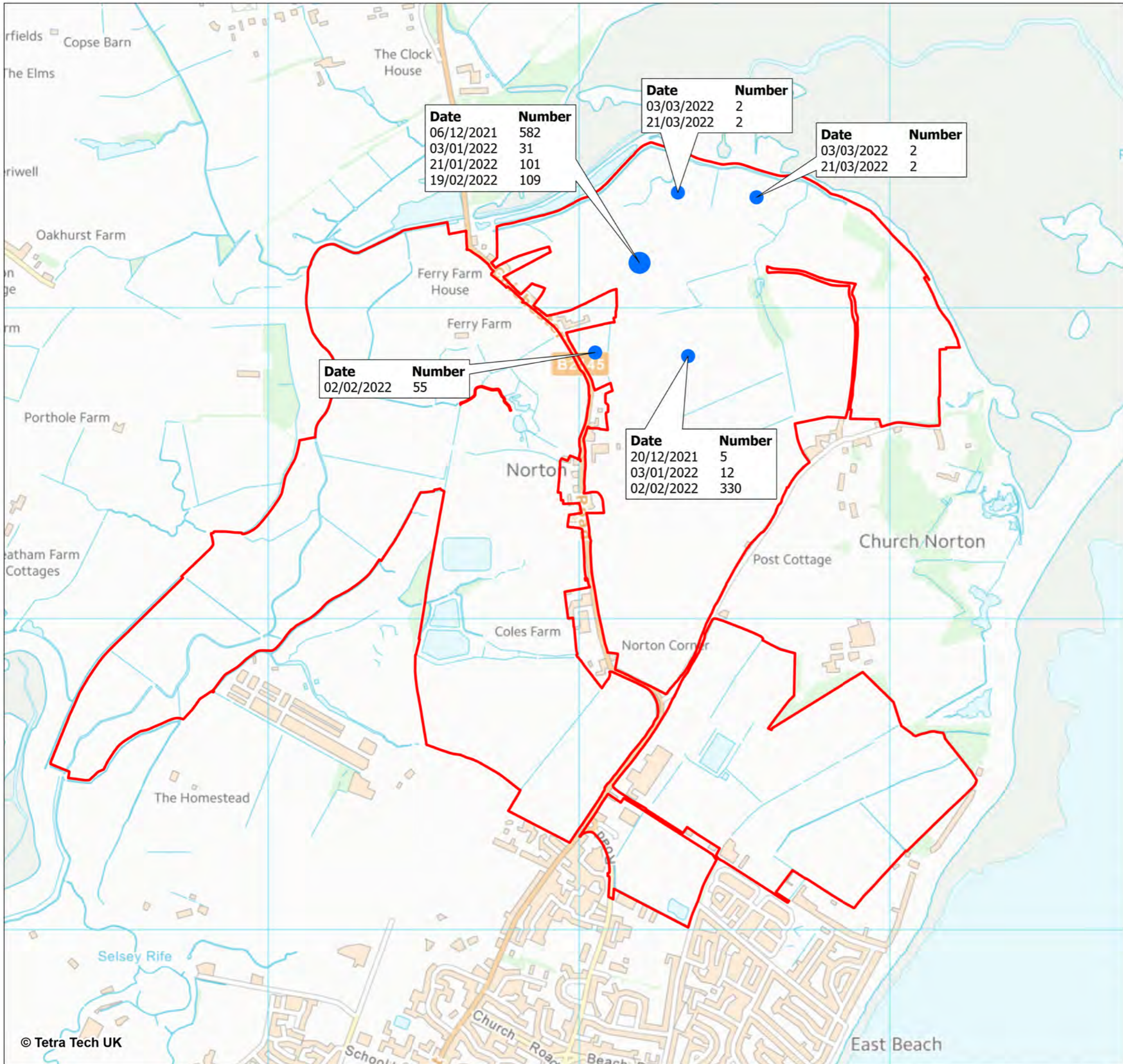
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Wintering bird survey 2021/22
Figure 9: Lapwing sightings



Survey Area

Distribution of sightings over survey period

- 1 - 3 records
- 4 - 6 records
- 7 - 9 records
- 10+ records



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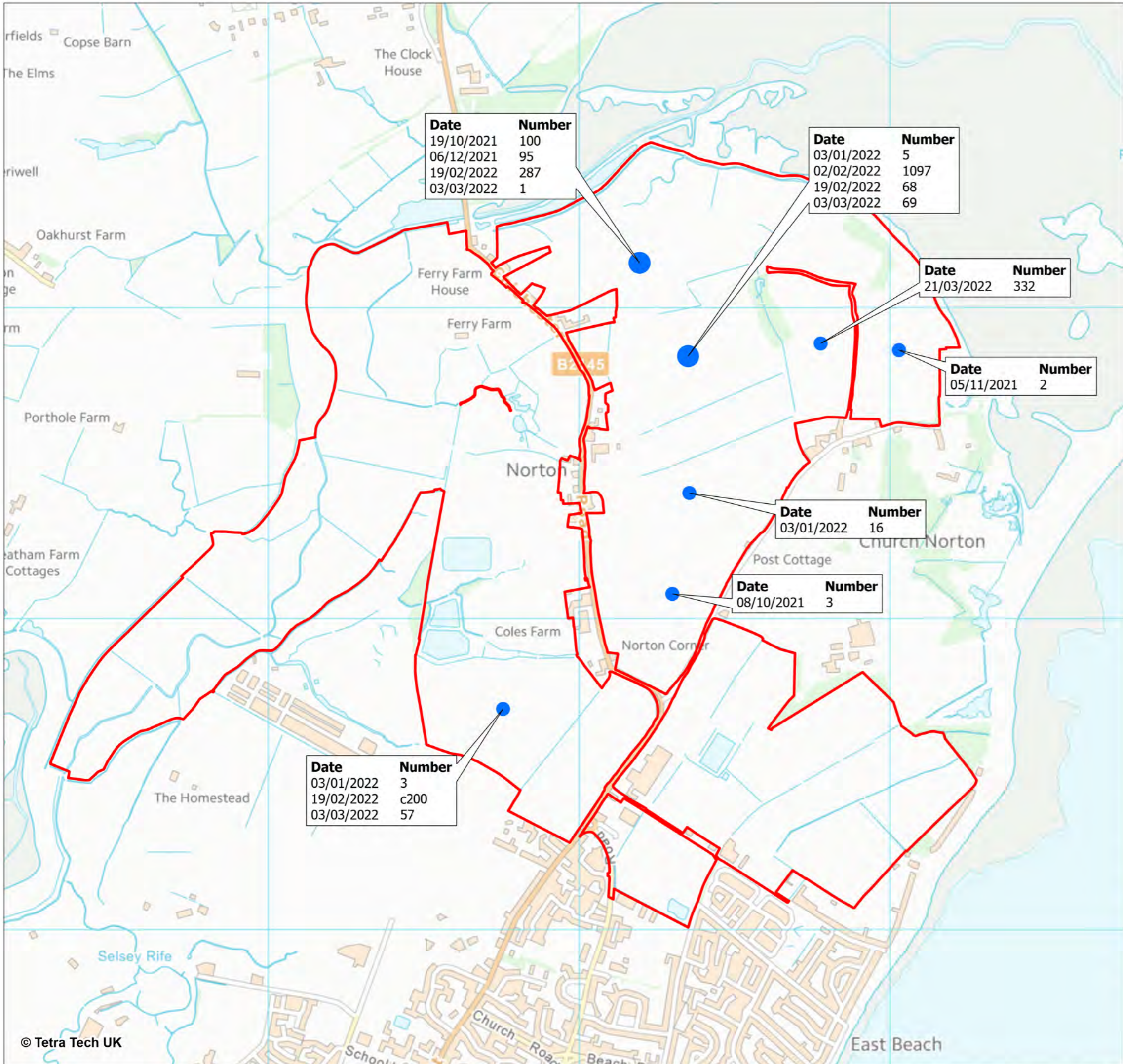
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Wintering bird survey 2021/22
Figure 10: Golden plover



Survey Area

Distribution of sightings over survey period

- 1 - 3 records
- 4 - 6 records
- 7 - 9 records
- 10+ records



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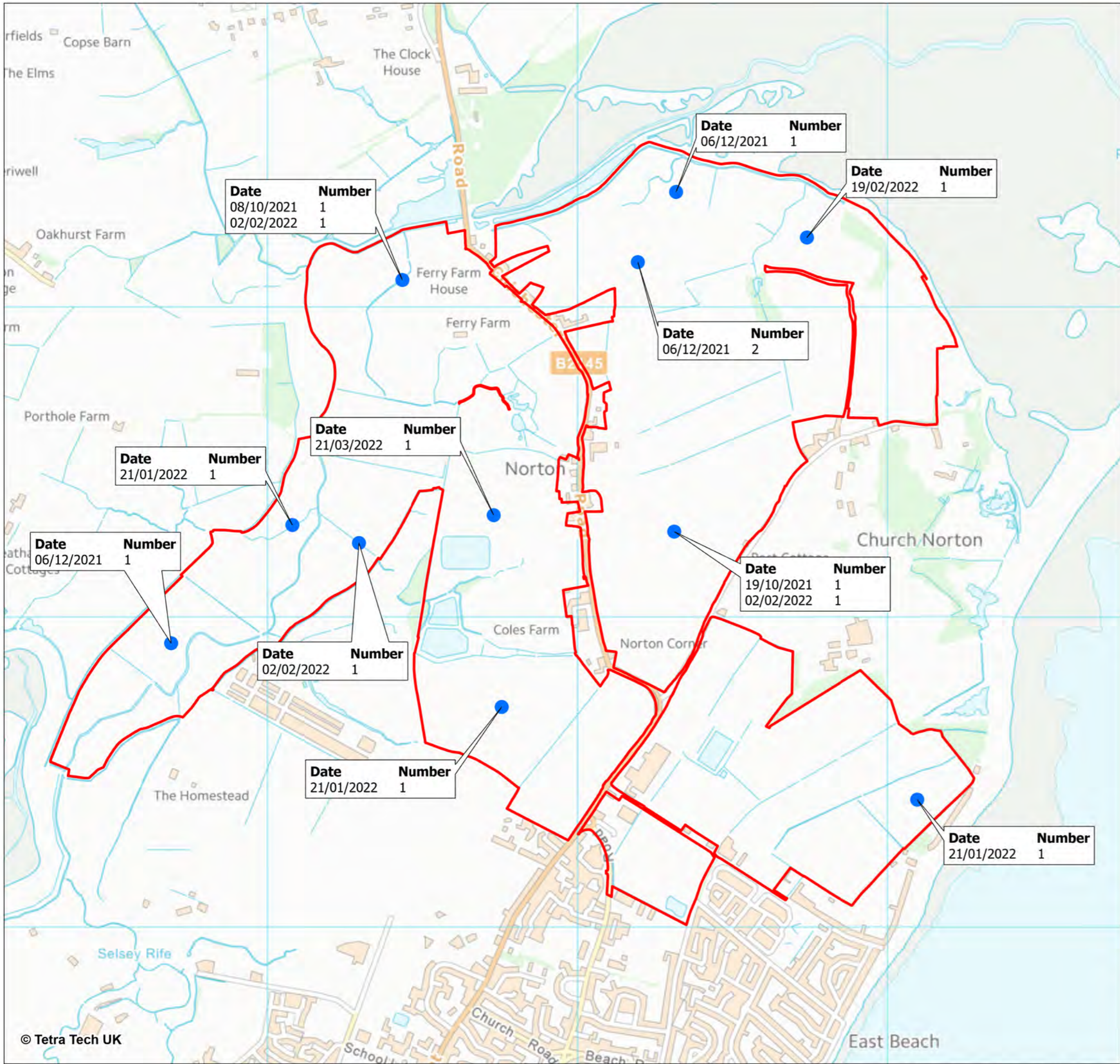
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Wintering bird survey 2021/22
Figure 11: Common snipe



- Survey Area
- Distribution of sightings over survey period
- 1 - 3 records
 - 4 - 6 records
 - 7 - 9 records
 - 10+ records



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Appendix 1
Classification system used for BoCC5

Appendix 1: Classification system used for BoCC5

BoCC5 classification criteria

Red list

Species that are globally threatened (Critically endangered, endangered and vulnerable but not near threatened) using IUCN guidelines, as assessed by Birdlife International in 2021.

Historic decline: Historic decline in breeding populations. Species judged to have declined severely between 1800 and 1995 from an assessment conducted by Gibbens *et al* (1996) and which have not recovered subsequently.

Breeding population decline: Severe decline in UK breeding population size, either a decline of over 50% over 25 years or the longer-term defined as the period since first BoCC review (1969).

Non-breeding population decline: Severe decline in UK non-breeding population of over 50% over 25 year period or over longer-term defined as the period since first BoCC review (1969). Non-breeding trends were only assessed if a species has substantially independent breeding and non-breeding populations, otherwise only breeding population was assessed.

Breeding range decline: Species that have experienced a severe decline in the UK range between the breeding bird atlases in 1988-91 and 2007-11 or 1968-71 and 2007-2011 as measured by the calculated change in the number of occupied 10km squares.

Non-breeding range decline: Severe decline in UK range (more than 50%) between the wintering bird atlases in 1981-84 and 2007-2011 as measured by the calculated change in the number of occupied 10km squares.

Amber list

ERLOB: The European red list of birds was published in 2015 by Birdlife International. It covers IUCN red list assessments of regional extinction risk with no consideration of the wider suite of measures (species rarity, localization, moderate decline and depletion) included in SPEC assessments. Any species on the European red list (Critically endangered, endangered, vulnerable) is included on the amber list.

Historic decline – recovery: Species red listed for historic decline in a previous review but with a substantial recent recovery (at least 100% in last 25 years or the longer term period). Longer-term is defined as the period since first BoCC review (1969).

Breeding population decline: Species experiencing a moderate decline in UK breeding population (more than 25% but less than 50%) over 25 years of the

longer term period. Longer-term is defined as the period since first BoCC review (1969).

Non-breeding population decline: Moderate decline in UK non-breeding population (more than 25% but less than 50%) over 25 year period or over longer-term defined as the period since first BoCC review (1969). Non-breeding trends were only assessed if a species has substantially independent breeding and non-breeding populations, otherwise only breeding population was assessed.

Breeding range decline: Species that have experienced a moderate decline (more than 25% but less than 50%) in the UK range between the breeding bird atlases in 1988-91 and 2007-11 or 1968-71 and 2007-2011 as measured by the calculated change in the number of occupied 10km squares.

Non-breeding range decline: Moderate decline in UK range (more than 25% but less than 50%) between the wintering bird atlases in 1981-84 and 2007-2011 as measured by the calculated change in the number of occupied 10km squares.

Breeding and non-breeding rarity: Species with a UK breeding population of fewer than 300 pairs or with a UK non-breeding population of less than 900 individuals.

Breeding and non-breeding localisation: Localised breeding or non breeding population with at least 50% of UK population found in 10 or fewer sites. Sites were defined as either Special Protection Areas or Important Bird Areas. Rare breeding and non-breeding species were not assessed against this criteria as the small population size predisposes them to be restricted to a small number of sites.

Breeding or wintering population of International importance: Species with at least 20% of European breeding or non-breeding population found in the UK.

Stanbury, A., Eaton, M., Aebischer., Balmer, B., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D and Win, I (2021). The status of our bird populations: the fifth Birds of Conservation Concern in the UK, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds*. (114), pp. 723-747.

Appendix 2
Field observations: data sheet

		08/10/2021	19/10/2021	05/11/2021	19/11/2021	06/12/2021	20/12/2021	03/01/2022	21/01/2022	02/02/2022	19/02/2022	03/03/2022	21/03/2022		
Mute swan	Status: In Sussex Fairly common resident. 201-2,000 Common introduced resident. 2,001-10,000					2 over Upper Chain Bridge	2 feeding on Pole Field	3, 2 feeding on Slurry Farm and one over 15 Acres.	3, 2 feeding on Norton Corner and 1 on Hogs Marsh reservoir.	2 feeding on Slurry Farm.	1 on Long Coles.	1 flew onto Hogs Marsh Reservoir			
Canada goose												Pair on banks of new irrigation reservoir			
Brent goose	Very common winter visitor and passage migrant. 10,001-60,000 Fairly common winter visitor and scarce passage migrant. 201-2,000		1 over Compton's and then 1 on Norton Corner - assume same bird.	Max 169. Flock of c165 flew over Church Norton East from harbour, 2 over Pagham Marsh and 2 over Compton's.	Max 186. Flock of 96 over Ferry 1. Flock of 59 over 15 Acres. Flock of 13 over Lower Chain Bridge. Flocks of 13 and 4 over solar farm and 1 over Woolhouse Marsh.	Max 503. 13 feeding on Slurry Farm. 7 flocks (max 200) heading towards Medmery.	Max 115. Flocks of 58,29, 6 and 22 heading to or from fields near sewage treatment works/Medmery.					Max 15. 9 birds on bank of new irrigation reservoir. 2 on Hogs Marsh reservoir. 2 over Horse Pond and 2 on Chases Marsh.			
Common shelduck	Common winter visitor. 2,001-10,000		1 over Compton's. 1 on western flight pond.		1 over Pagham Marsh.		Max 11. 3 on Hogs Marsh reservoir and 8 over Humphries.		1 on Hogs Marsh reservoir.	2 flew into Hogs Marsh reservoirs.		8, 2 pairs recorded flying over Chases Marsh, 4 on banks of new irrigation reservoir opposite Compton's.			
Eurasian wigeon	Common winter visitor and rare breeder. 2,001-10,000	1 on western flight pond													
Eurasian teal	Common winter visitor and rare breeder. 2,001-10,000	Max 35. 26 on western flight pond and 9 over irrigation reservoirs.	26 on western flight pond	Max 127. 326 on western flight pond and 1 on eastern flight pond.	Max 39. 16 on western flight pond. 17 on eastern flight pond. Other birds flying towards eastern flight pond.	Max 193. 154 on western flight pond. 14 on Pagham Marsh and c20 on eastern flight pond.	Max 91. c86 on western flight pond flushed before properly counted. 3 on eastern flight pond.		4 on western flight pond.	Max 26. 22 flushed from western flight pond and 4 over Ferry Field.	Max 31. 7 on western flight pond, 19 on eastern flight pond. 4 in ditch between Ferry 1 and Ferry 2 and 1 in ditch on Long Slip.	Max c388. 68 on western flight pond. C 100 on eastern flight pond. C201 on Pagham Marsh (likely to have included 100 from eastern flight pond).	Max 55. 54 on western flight pond, one in ditch between Long Slip and Pole Field.	Max 19. 10 on eastern flight pond and 9 on western flight pond.	
Mallard	Common resident and winter visitor. 2,001-10,000.	9 on western flight pond	13 on western flight pond	56 on western flight pond.	Max 23. 9 on Park Farm reservoir and 7 off western flight pond.	Max 11. 4 on western flight pond.	Max 28. Flock of 17 on Triangle.	Max 17. 5 on western flight pond and 8 on Park Farm reservoir.	Max 11. 6 on Park Farm Reservoir. 2 over Ferry 2, 3 in ditch on Long Coles.	Max 50. 13 on Pagham Marsh, 8 on eastern flight pond, 6 on Grange, 6 on western flight pond.	Max 46. 5 on Park Farm reservoir, 4 in ditch on western side of Woolhouse Marsh, 3 on Compton's, 4 on western flight pond and 2 in ditch on southern end of Ferry 1.	Max 27. Mostly pairs.			
Pintail	Fairly common winter visitor. 201-2,000	Flock of 24 flew over Lower Chain Bridge								2 on Pagham Marsh.					
Gadwall	Very scarce breeder and fairly common winter visitor. 201-2,000	3 on western flight pond		12 on western flight pond.			6 over Ferry 2.				Max 4. 2 on western flight pond and 2 on Hogs Marsh reservoir.	Max 6. 2 on western flight pond and 4 on Hogs Marsh reservoir.			
Garganey	Scarce passage migrant. 21-200		Juvenile on Hogs Marsh reservoirs												
Shoveler	Common winter visitor and very scarce breeder. 2,001-10,000		3 on western flight pond.		4, 3 on Hogs Marsh reservoirs and 1 over Chases Marsh.	3 over field south of Ferry 1.	3 on Hogs Marsh reservoir.		Male south over Ferry Gate Field.				Max 5. Four on new irrigation reservoir and 1 on western flight pond.		
Tufted duck	Fairly common resident and scarce breeder.												2 on Hogs Marsh reservoir.		
Red-legged partridge	Common introduced resident. 2,001-10,000	Max 187. Largest covey c30.	Max 117. Largest covey 23	Max 118. Largest covey 38.	Max 50. Largest covey 17.	Max 60. Largest covey c30.	Max 40. Largest covey 19.	Max 17. Largest covey 7.		4	6 Max 23. Largest covey 11.	Max 17. Largest covey 4.	Max 8. Largest covey 3.		
Pheasant	Very common introduced resident. 10,001-60,000 Fairly common but localised resident and common winter visitor. 201-2,000	Max 50. Group of 16 around release pen.	5	5	Max 35. Group of 18 around 5 release pen.	Max 27. Largest group 7.		4	3	2	1	1	8		
Common nighthawk	Scarce and increasing resident. Wintering status unclear. 21-200		1 flew south near solar farm	1 in ditch on Pagham Marsh	1 over Church Norton West.	1 flying south over solar farm	3 over Ferry 2.	4 over Ferry Gate Field and 1 over solar farm.	5 singles flying over site.	Max 13. All flying over including group of 7.	Max 6, all flying over.	Max 7. All flying over including group of 5.	Max 5. Flying over except one feeding on Rifle by 15 Acres.	Max 3. All singles flying over.	
Little egret	Scarce and increasing resident. Wintering status unclear. 21-200		1 in ditch on Pagham Marsh	4. One on Woolhouse Marsh. 1 in ditch between 19 Acres and Gate Field. One flew into Western flight pond.	5. Two together on edge of Humphries. 1 in ditch on edge of Long Coles and 1 over Long Coles.	1 in ditch by Woolhouse Marsh.	2. One on Kennets and one over eastern flight pond.	3. One on Long Slip. 1 on Woolhouse Marsh and 1 on Pagham Marsh.	1 over Home Farm.	4. One on eastern flight pond, one on Kennets, one over solar farm and one on Long Slip.	On flew into ditch on Long Slip, one on eastern flight pond and one on Kennets.	2. One over Ferry 2 and one flying towards western flight pond.	2. One over Springs Field and one in ditch between Upper and Lower Chain Bridge.		
Grey heron	Fairly common resident. 201-2,000	1 in ditch between 19 Acres and Gate Field.	3 on western flight pond.	1 over Home Farm.									1 drifting west over Medmery.		
Little grebe	Scarce resident and winter visitor. 21-200												1 on western flight pond.		
Red kite	Fairly common and increasing visitor. 201-2,000												1 heading to Medmery over solar farm		
Marsh harrier	Very scarce breeder and scarce passage migrant					1 heading to Medmery over solar farm	1 (possible 2). Female type over Ferry Gate Field and again over field east of western flight pond.						Adult male (ragged wing) hunting over Home Farm.		
Sparrowhawk	Common resident. 2,001-10,000	4 sightings including 2 different birds at Park Farm.													
Common buzzard	Fairly common and increasing resident. 201-2,000	9 sightings during survey.	6 sightings during survey.	2 (2 Park Farm)	10 sightings during survey.	8 sightings during survey.	7 sightings during survey.	7 sightings during survey.	9 sightings during survey.	11 sightings during survey.	10 sightings during survey including 2 of pairs of birds. (Max 12)	7 sightings during survey	10 sightings during survey including 2 of pairs of birds. (Max 11)		
Water rail	Scarce passage migrant and winter visitor. 21-200				1 calling from sedge bed close to eastern flight pond.	1 calling from wet area east of Long Slip.									
Moorhen	Very common resident. 10,001-60,000	Max 4. Present on eastern and western flight ponds.	Max 4. Western flight pond and ditches.	Max 3. Park Farm Reservoir and Hogs Marsh reservoirs.	1 on Park Farm reservoir.	1 on Park Farm reservoir.	2. Park Farm reservoir and Hogs Marsh reservoir.	1 on Park Farm reservoir.	Max 4. 3 together in ditch between 19 Acres and Gate Field. 1 calling on golf course.	Max 9 including 3 in ditch by Gate Field/19 Acres and 5 on western flight pond.	Max 4. 3 on western flight pond.	Max 7.	Max 4. 3 on western flight pond.	Max 3.	
Coot	Fairly common resident and common winter visitor.	1 on Park Farm reservoir.													
Oystercatcher	Scarce breeder and fairly common winter visitor														
Golden plover	Common winter visitor and passage migrant. 2,001-10,000	3 on Norton Corner.		Max 119. Flock of 100 on Kennets (assume same as flock of c80 seen in flight over Kennets). Groups of 8 and 8 flew towards Kennets from Harbour and group of 3 joined larger flock on Kennets.	Max 58. 2 on Church Norton East. 47 over Drift Road and 9 over Home Farm.	Max 169. Flock of 168 over Ferry Field and 1 over Home Farm.	Max 147. 95 on Kennets. 32 over Ferry 1 and 20 over Upper Chain Bridge.	Max 199. Four flocks over Ferry 1 and Ferry Gate Field.	Max 6. 4 over Pagham Marsh. 2. 1 on Church Norton East and one on Long Slip.	Max 1147. Settled birds recorded on Home Farm (5), Drift Road (16) and Long Coles (3). Flocks of 572 and 412-105 may relate to same birds are large flock circling Long Coles/Granery area for c15 mins.	Max 2. Birds over Ferry Gate Field with lapwing flock.	Max 1097. Flock on Home Farm - flighty with much circling and movement in flock.	Max 1393. Flock of 287 on Kennets, 68 on Home Farm and c200 on Long Coles. All others flying over (maybe some double-counting). Flocks over between 162 and 18 birds.	Max 480. 57 on Long Coles, 1 on Kennets, 69 on Home Farm, all other flying over.	332 on Church Norton West.
Grey plover	Common winter visitor and passage migrant. 2,001-10,000														
Knot															
Lapwing	Scarce to fairly common declining resident and very common winter visitor. 10,001-60,000		Flock of c60 heading east from Ferry Pool over Humphries.	Max 8. 6 over Chases Marsh and 2 over Ferry 1. (14 on Ferry 2 before start of survey).	Max 595. 582 on Kennets. 12 over Chases Marsh. 1 over Upper Chain Bridge.	Flock of 6 over Ferry 2.	Max 233. 5 on Home Farm. 40 over Upper Chain Bridge. Flock of 180 just outside site boundary.	Max 46. 31 on Kennets, 12 on Home Farm and 3 over Home Farm.	Max 294. 101 on Kennets, 137 over Ferry 2 and 56 over Ferry Gate Field.	Min 538. Settled flock of 330 on Home Farm and 55 on Rookery, others flying towards harbour and may have come off Home Farm	Max 211. Flock of 109 on Kennets. Flocks of 72 and 13 over Ferry Gate Field.	Max 5. 2 on Pagham Marsh and 2 on Pagham Marsh 2.	Max 4. Pairs on Pagham Marsh and Pagham Marsh 2.		
Curlew	Common passage migrant and winter visitor. 2,001-10,000	42 roosting on Woolhouse Marsh.	1 over Ferry 2.	Max 2. One over 15 Acres and 1 on Woolhouse Marsh.	Max 17. 13 on Pagham Marsh, 2 on Pagham Marsh 2, 1 on Woolhouse Marsh. 1 over Humphries.		13 on Pagham Marsh.			Max 46. 18 feeding on Pagham Marsh and 28 east over Horse Pond.	Max 42. 21 on Pagham Marsh, 19 on Pagham Marsh 2, 1 on Long Slip and 1 over Palmers.	Max 19. 9 on Pagham Marsh 2 and 9 on Woolhouse Marsh (possibly same birds) and 1 over Long Slip.			
Black-tailed godwit	Fairly common but localised winter visitor and passage migrant. 201-2,000						Flock of 10 over 19 Acres.								
Dunlin	Very common passage migrant and winter visitor. 10,001-60,000			1 heard above Ferry 1.				Single bird in with GP flock circling Long Coles.			1 with L and GP on Kennets.				
Green sandpiper	Scarce winter visitor and passage migrant. 21-200				1 over Compton's.				2 over Hogs Marsh Reservoir and 1 heard over Granery (possibly same bird).				1 over Ferry 3.		
Greenshank	Scarce winter visitor. 21-200														
Common redshank	Scarce resident and fairly common winter visitor and passage migrant. 201-2,000												6 birds in flight over Pagham Marsh then back into harbour.		

Common snipe	Very scarce breeder and fairly common winter visitor. 201-2,000	2. One flushed from ditch between Ferry 1 and Ferry 2 and 1 over 19 Acres.	1 flushed from edge of track by Norton Corner/Drift Road.	Max 12. Birds flying around over site over high water. 2 on Kennets. 1 on Paghnam Marsh. 1 landed on 19 Acres.					Max 3. One by solar farm. One on Long Coles and one on Copse Field.	Max 3. 1 by track on Drift Road. 1 in ditch between Ferry 1 and Ferry 2. 1 in ditch by 15 Acres.	Max 2. One on Woolhouse Marsh and 1 over Paghnam Marsh 2.		1 bird flushed from rough ground on Comptons
Black-headed gull	Common breeder and very common to abundant winter visitor. 10,001-60,000+	Max 54. Largest flock 13 over.	Max 159. Flock of 93 following tractor cutting herb beds on Long Coles.	Max 116. Flock of 30 lifted off Hogs Marsh reservoirs.	Max 58. Mostly singles, largest flock 10.	Max 86. Largest flock 19.	Max 106. Largest flock 17.	Max 67. Largest flock 16.	Max 78. Largest flock 9.	Max 54. Largest flock 9.	Max 159. Flock of 94 over solar farm and 19 over Ferry 2.	Max 99. Flock of 44 on Granery and 13 on Hogs Marsh reservoir.	Max 105. 30 on banks of new irrigation reservoir and 16 on Upper Chain Bridge.
Mediterranean gull	Very common winter visitor and occasional breeder. 10,001-60,000	Max 4.	Max 3.	Max 3.			2		1	Max 9. 5 on Hogs Marsh reservoir.	Max 5.	Max 10.	Max 7.
Common gull	Fairly common winter visitor and scarce breeder. 201-2,000			1	1					2	1		4
Lesser black-backed gull	Very common winter visitor and scarce breeder. 201-2,000	1	2	Max 18. Largest flock 2.	Max 33. Largest group 2.	Max 20. Largest group 2.	Max 35. Largest flock 9.	Max 40. Largest flock 6.	Max 30. Largest flock 3.	Max 35. Largest flock 7.	Max 42. Largest flock 6.	Max 36. Largest flock 6.	Max 47. 19 on banks of new irrigation reservoir.
Herring gull	Common winter visitor and very scarce breeder. 2,001-10,000	Max 18. Largest group 3.	Max 28. Largest group 2.	Max 18. Largest group 2.	Max 33. Largest group 2.	Max 20. Largest group 2.	Max 35. Largest flock 9.	Max 40. Largest flock 6.	Max 30. Largest flock 3.	Max 35. Largest flock 7.	Max 42. Largest flock 6.	Max 36. Largest flock 6.	Max 47. 19 on banks of new irrigation reservoir.
Great black-backed gull	Common winter visitor and very scarce breeder. 2,001-10,000	2	5			5	11	12	15.	Largest flock 9.	Max 6. Largest flock 5.	Max 2.	Max 4.
Stock dove	Common resident. 2,001-10,000	Max 66. Flocks of 40 and 16 recorded.	Max 85. Largest flock 39.	Max 39.	Max 179. Largest flock 46.	Max 242. Largest flock c140. Possibly some double counting but flock of 200+ birds off site.	Max 122. Flocks of 34 and 43.	Max 176. Largest flock c60.	Max 275. Largest flock c200 around western flight pond.	Max 217. Flocks of 144 and 31 around eastern flight pond.	c210. Flocks of c140 around eastern flight pond and c30 on Comptons.	Max 96. Flock of 42 around eastern flight pond and 18 around western flight pond.	Max 228. Flock of 78 and c80 at western and eastern flight ponds respectively may have been same flock.
Woodpigeon	Abundant resident and winter visitor. 60,000+	Max 582. Largest flock c140.	Max 287. Largest flock 57.	Max 336. Largest flock 77.	Max 610. Largest flock 163.	Max 491. Largest flock c80.	Max 1011. Largest flock c200.	Max 630. Flocks of c140 and c160.	Max 677. Flocks of 118, 48 and 46.	Max 950. Flocks of 163, 100 and 80	Max 552. Largest flocks c200 and c120.	Max 661. Largest flocks c160 and 81.	Max 598. Largest flocks c120 and 62.
Collared dove	Very common resident. 10,001-60,000	2			3	3		2	3	6	2	2	6
Feral pigeon		Max 18. Groups of 8 and 7 in with mixed WP/SD flocks	Max 21. Small numbers feeding with flocks of WP/SD/			1		6		1	2		
Barn owl								3 hunting just west of Upper Chain and 19 Acres during survey - flew into site after end of survey.					1 calling from stables south of Park Farm.
Little owl				1. In flight over Upper and Lower Chain Bridge - mobbed by crows. Returned to roost in scrubby area adjacent to Lower Chain Bridge.									
Short-eared owl	Scarce winter visitor and passage migrant. 21-200												
Kingfisher	Scarce to fairly common resident. 21-2,000					1 channel by eastern flight pond.				1 in rifle by Gate Field		1 on rifle by Lower Chain Bridge (western side).	
Green woodpecker	Fairly common or common resident. 201-10,000	4. 2 recorded together.	1	7	6	1	3	5	3	1	4	2	6 including 2 around Hogs Marsh reservoir.
Great spotted woodpecker	Common resident. 2,001-10,000	3	3	6	3	1	1	3	3	1			3
Kestrel	Fairly common resident. 201-2,000		5 sightings during survey.		1	2	6 sightings during survey.		2	2	4	5	2
Merlin	Scarce winter visitor and passage migrant. 21-200					1 ad with prey flying towards harbour over Pole Field.		1 adult over Home Farm.					
Peregrine	Scarce breeder. 21-200												
Magpie	Very common resident. 10,001-60,000	Max 40. Largest group 5.	Max 31. Largest group 4.	Max 29. Largest group 3.	Max 40. Largest group 12.	Max 9.	Max 24. Largest group 6.	Max 33. Largest flock 14.	Max 24. Largest flock 3.	Max 35. Largest flock 5.	4 Max 15. Pairs or singles.	Max 37. Groups of 5, 4 and 4 noted.	
Jay	Very common resident. 10,001-60,000	10 (sig national jay passage)	1	3	4	1	5	1	1		4	2	2
Jackdaw	Very common resident. 10,001-60,000	Max 31. Flock of 22 on Little Lucerne.	Max 29. Largest flock 12.	Max 18. Largest flock 18.	Max 11. Largest flock 6.	Max 37. Flock of c30 on Long Coles.	Max 18. Largest flock 10.	Max 21. Largest flock 15 on Long Coles.	2. 9. Largest flock 7.	8. Largest flock 6.		18. Largest flock 12.	5
Rook	Very common resident. 10,001-60,000	Max 54. Flock of 30 on Granery	Max 23. Flock of 16 on Palmers.	Max 24. Largest flock 14 on Long Coles.	Max 47. Flock of 17 on Long Coles.	Max 30. Largest group 7.	Max 25. Largest flock 14.	Max 111. Flocks of 26 and 33 noted.	Max 102. Largest flock 55.		4 Max 36. Largest flock 28.	Max 34. Largest flock 15.	
Carriion crow	Very common resident. 10,001-60,000	Max 73. Flock of 33 on Little Lucerne.	Max 47. Flock of 17 on Copse Field.	Max 36. Largest flock 36.	Max 72. Largest flock 18 on Long Coles.	Max 49. Largest flock 18.	Max 40. Largest flock 12.	Max 38. Largest flock 7.	Max 37. Largest flock 9.		14 Max 49. Largest flock 21.	Max 36. Largest flock 7.	
Raven	Scarce and increasing breeding resident. 11-100			2 over Drift Road.					2 around eastern flight pond				1 over Church Norton East.
Goldcrest	Very common breeding resident and winter visitor	1	1	1	2	2							
Blue tit	Abundant resident. 60,000+	6	1	5	6	3	2	5	7	6	3	10	4
Great tit	Abundant resident. 60,000+	5	2	11	5	5	3	5	5	9	10	17	10
Skylark	Very common but declining resident and common winter visitor. 2,001-10,000	Min 138. Max 165.	Min 62. Largest flock 8.	Max 33. Largest flock 8.	Max 40. Largest flock 6 and 2 flocks of 5.		4 Max 19. Largest flock 5.	Max 9. Largest flock 8.	Max 40. Largest flock 4.	Max 47. Largest flock 12.	Max 65. Largest flock 13.	Max 55. Largest groups 3 birds interacting.	
Barn swallow	Common summer visitor and abundant passage migrant												
House martin	Common summer visitor and abundant passage migrant	8 birds including 5 in mixed flock with swallows.											
Cetti's warbler	Scarce but increasing resident and winter visitor. 21-200		1 singing ditch by Humphries/Paghnam Marsh.	2. One of ditch on Ferry 2 and one in scrub by ditch on Long Slip.	1 in scrub by ditch on Long Slip.								1 singing eastern end of Long Slip.
Long-tailed tit	Very common resident. 10,001-60,000	9. One flock of 7.	8. Flock of 6.	7. Flocks of 4 and 3.	2		4 Flock of 9.		3	2		3	2
Chiffchaff	Very common summer visitor and passage migrant. Small numbers winter.												Max 18. Clearly arrivals, at least 6 on western side of golf course.
Wren	Abundant resident. 60,000+	Max 11.	Max 11.	Max 18.	Max 24.	Max 19.	Max 11.	Max 7.	Max 9.	Max 10.	Max 7.	Max 14	Max 12.
Common starling	Common but declining resident and very common to abundant winter visitor. 10,001 - 60,000+	Max 541. Majority on powerlines close to WWTFW.	Max 757. Largest flocks flying over from WWTFW c300, c180 and c90.	Max 80. Largest flock 18.	Max 485. Largest flock c200 and one of 148.	Max 718. Flocks of 361 and c260.	Max 89. Largest flock c30.	Max 109. Largest flock c70.	Max 11.	Max 56. Largest flock 23.	Max 333. Flock of c250 on Paghnam Marsh, 47 on Bartlett's.	Max 40. Largest flock 14.	Max 11. Largest flock 9.
Ring ouzel	Very scarce spring passage migrant, scarce to fairly common in autumn.												Male in willow between Ferry 1 and Ferry 2.
Blackbird	Abundant breeding resident and very common to abundant winter visitor. 10,000 - 60,000+	Max 10.		Max 27. One group of 6.	Max 21. Largest group 2.	Max 26. Largest group 2.	Max 16. Largest group 2.		5 Max 15. Largest group 3.	Max 18. All singles except one group of 4.	4 Max 22. All singles.	Max 10.	
Fieldfare	Common to very common passage migrant and winter visitor. 2,001-60,000			Max 18. One flock of 9. Arrival of thrushes overnight.				2	1				
Song thrush	Very common but decreasing resident and common winter visitor. 2,001-10,000	1		3	4	14	9	3	3	5	1		8. 5 including one group of 3.
Redwing	Common to very common passage migrant and winter visitor. 2,001-60,000	1 calling from scrub along edge of golf course	Max 9. Largest flock 4.		4		1		Flock of 7.		5 (one flock of 4)		
Mistle thrush	Common resident. 2,001-10,000	Max 5. One group of 4 over Long Coles.							5	5	2	2	1
Rubin	Abundant resident. 60,000+	26	19	22	20	8	10	14	17	24	3	15	11

Stonechat	Fairly common resident. 201-2,000	Max 8. Present across whole site.		5. One group of 3 on 4 edge of solar farm.	Max 5.	Max 5.	Max 6.	Max 5.	Max 6	Max 4	Max 5	Max 3.						
Wheatear	Common passage migrant 2,001-10,000. Very scarce breeder.	1 feeding around solar farm																
Duncock	Very common resident. 10,001-60,000	1		10	4		6	4	2	6	10	1	13	7				
House sparrow	Very common but declining resident. 10,001-60,000			Max 9 including 6 around game feeders.	2 1 (heard)			5 1 (heard)	Max 14. One flock of 13 by houses.	Min 3 (heard only in 3 different locations)		Min 3 (heard)		5				
Yellow wagtail	Fairly common autumn passage migrant. 201-2,000	2 over Norton Corner.																
Grey wagtail	Scarce resident and fairly common winter visitor and passage migrant. 201-2,000	2. Both flying over.	1 flying over.	1 flying over.	2. One around Park Farm reservoir.	1 around Hogs Marsh reservoirs.	1 on Long Slip.	1 heard on edge of Ferry 2.		2. Female at Park Farm (possibly same bird) seen in two locations		1						
Pied wagtail	Common resident and winter visitor. 2,001-10,000.	Max 14. Largest flock 5.	Max 8. Largest group 2.	Max 11. Flock of c50 on Park Field and c25	Max 23. Largest flock 13.	Max 4.	Max 8.	Max 16. Largest flock 6.	2	7		2	5	5				
Meadow pipit	Common but declining resident and very common winter visitor. 10,001 - 60,000	Min 107 - Max 137. Largest flock 44 on Compton's.	1 calling from scrub along edge of golf course	1 possible different on Long Slip.	Max 58. Largest flock 14.	Max 57. Flock of 21 on Palmers and 16 over Palmers.	Max 19. Largest flock 4.	Max 25. Largest flock 6.	Max 34. Flocks of 11 and 13.	Max 65. Largest flocks 12 and 8.	Max 22. All singles or pairs.	Max 27. Largest group 3.	Max 163. Steady overhead passage E-NE during morning. Settled flocks of 28, 16 and 13 noted.					
Brambling	Fairly common winter visitor and passage migrant. 201-2,000																	
Chaffinch	Abundant resident and very common winter visitor. 10,001 - 60,000	Max 11.		Max 15.	Max 12. One group of 6.	Max 12. One group of 7.	Max 16. One group of 6.		3	2	9	3	8	14				
Greenfinch	Very common resident. 10,001-60,000			1	4	2	3	Max 14. One group of 5.	1 group of 4.	Max 28. Flocks of 10 and 12 recorded.	Max 18. One flock of 8.	7	11	15				
Linnet	Fairly common but decreasing resident. 201-2,000	Min of 130. Flock of c90 over 19 Acres and c35 feeding on Long Coles		Max 58. Groups of 8 and 14 on Long Coles. c30 on Drift Road.	Max 30. Flock of 15 over Pagham Marsh	2.	1 over Chases Marsh and 1 over Copse Field.			1		Max 22. Largest flock 9.	Max 12. Largest flock 4.					
Lesser redpoll	Fairly common autumn passage migrant and winter visitor. 201-2,000																	
Goldfinch	Fairly common resident and winter visitor. 201-2,000	Max 24. Flocks of 7 and 11 recorded.	Max 26. Flock of 11 recorded.	Max 40. Two flocks of 6 recorded.	Max 81. Flocks of 30 and c22.	Max 33. Flock of 14 and 2 flocks of 6.	Max 80. Flocks of 12 and 32.	Max 60. Flocks of 17 and c30.	Max 32. Largest flock 8.	Max 11. Largest flock 4.		2	Max 20. Largest flock 7.	Max 19. Largest flock 4.				
Siskin	Common winter visitor and passage migrant. 2,001-10,000			5. Three records all birds over.	1							1	over.					
Yellowhammer	Fairly common resident. 201-2,000	One in bush between Lower Chain Bridge and Gate Field and 1 over Ferry 2		5. Birds flying over and in hedges alongside Pagham Marsh and solar 1 farm.	11. Group of 4 on edge of Compton's. 4 around 15 Acres.	6. Group of 2 around western flight pond and 2 Pagham Marsh.												
Reed bunting	Fairly common resident and winter visitor. 201-2,000	One along ditch between Ferry 2 and Ferry Gate Field.	61 species	53 species	2	65 species	1	57 species.	61 species	1	56 species.	54 species	55 species	53 species	52 species.	62 species	62 species	1