

Ecological Assessments

Environmental Statements (Biodiversity)

Species Surveys

Phase I Habitat Survey

National Vegetation Classification

Planning Guidance

Habitat Regulation Assessment

Protected Species Licensing

42020 CEMP: Biodiversity

BREEAM LE01 - 05

Wintering Bird Report



Omega Zone 8

St Helens, WA5 3UG



Consultant Report on behalf of:

REPORT STATUS

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Signature			

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1. INTRODUCTION

1.1. BACKGROUND

- 1.1.1. The following report has been prepared on behalf of Omega Warrington Ltd and provides the results of wintering bird surveys undertaken at Omega Zone 8, St Helens, WA5 3UG ('the Site').

Location

- 1.1.2. The Site forms part of the Omega business estate located west of Warrington, falling just within St Helens Borough. It is immediately south of the M62, west of Junction 8, and immediately west of the Warrington District County boundary and Lingley Mere.

Site description

- 1.1.3. The Site (~75.5 ha) is dominated by arable land with woodland belts, a network of ponds and ditches, improved grassland and scrub habitat present. Whittle Brook runs from the northwest boundary, towards the centre of the Site, and adjoins to the southern boundary. Off-site woodland is present to the south and west of the Site and a woodland belt forms the eastern boundary.

Rationale

- 1.1.4. The Site is approximately 7.4km away from Mersey Estuary Special Protection Area (SPA), Site of Special Scientific Interest (SSSI) and Ramsar (refer to Figure 1). SPAs are classified in accordance with European Council Directive 2009/147/EC on the conservation of wild birds, known as the Birds Directive, to protect rare and vulnerable birds (as listed on Annex I of the Birds Directive), and regularly occurring migratory species. The Site falls within the impact zone of the Mersey SSSI since during hightide birds will forage beyond the Estuary's boundaries and use surrounding satellite habitat, such as waterbodies and agricultural land as found on the Site (refer to Figure 2).
- 1.1.5. The purpose of this report is to assess the use of the Site by such SPA-qualifying species and thus determine the impact that development of the Site may have on the Mersey SPA, if any.

Other Site Studies

- 1.1.6. A suite of additional biodiversity surveys has been completed at the Site in support of an Environmental Impact Assessment, submitted during December 2019. Ecology surveys have also included; a Phase 1 Habitat Survey, bat transect and aerial tree surveys, water vole, breeding birds, badger, great crested newt and reptiles.

1.2. THE MERSEY ESTUARY

- 1.2.1. The Mersey Estuary is situated on the Irish Sea coast of north-west England. The SPA encompasses all or parts of Mersey Estuary SSSI and New Ferry SSSI covering a total of 5,023.35 ha. The Mersey Estuary is a large, sheltered estuary which comprises large areas of saltmarsh and extensive intertidal sand and mudflats, with limited areas of brackish marsh, rocky shoreline and boulder clay cliffs, within a rural and industrial environment.
- 1.2.2. The intertidal flats and saltmarshes provide feeding and roosting sites for large and internationally important populations of waterfowl. During the winter, the Site is of major importance for duck and waders. The Site is also important during spring and autumn migration periods, particularly for wader populations moving along the west coast of Britain.

Qualifying Species

- 1.2.3. The Site qualifies under article 4.1 of the Bird Directive (as amended in 2009: 2009/147/EC) as it is used regularly by 1% or more of Great Britain populations of Annex 1 species listed in Table 1.

Table 1. Annex 1 species

Annex 1 species	Count and season	Period	% of GB population
Golden plover <i>Pluvialis apricaria</i>	4,040 individuals - wintering	5-year peak mean 1993/94 – 1997/98	1.20%

- 1.2.4. The Site also qualifies under 4.2 of the Directive as it is used regularly by 1% or more of biogeographical populations of regularly occurring migratory species listed in Table 2 and is used regularly by over 20,000 water birds in any season.

Table 2. Regularly occurring migratory species

Migratory species		Individuals - season
Redshank	<i>Tringa totanus</i>	4,513 - passage
Shelduck	<i>Tadorna tadorna</i>	6,476 - wintering
Teal	<i>Anas crecca</i>	11,723 - wintering
Pintail	<i>Anas acuta</i>	1,169 - wintering
Dunlin	<i>Calidris alpina alpina</i>	48,789 - wintering
Black-tailed godwit	<i>Limosa limosa islandica</i>	976 - wintering
Redshank	<i>Tringa totanus</i>	4,993 - wintering

- 1.2.5. The area regularly supports 104,599 individual water birds in the non-breeding season, species are listed in Table 3.

Table 3. Water birds present at Mersey Estuary SPA during the non-breeding season

English Name	Latin name
Great crested grebe	<i>Podiceps cristatus</i>
Shelduck	<i>Tadorna tadorna</i>
Wigeon	<i>Anas Penelope</i>
Teal	<i>Anas crecca</i>
Pintail	<i>Anas acuta</i>
Plover	<i>Charadrius hiaticula</i>
Golden plover	<i>Pluvialis apricaria</i>
Grey plover	<i>Pluvialis squatarola</i>
Lapwing	<i>Vanellus vanellus</i>
Dunlin	<i>Calidris alpina alpina</i>
Black-tailed godwit	<i>Limosa limosa islandica</i>
Curlew	<i>Numenius arquata</i>
Redshank	<i>Tringa totanus</i>

- 1.2.6. The area also supports many non-qualifying species of interest, listed in Table 4, that occur in non-breeding numbers of less than European importance (less than 1% of GB population).

Table 4. Non-qualifying species of interest

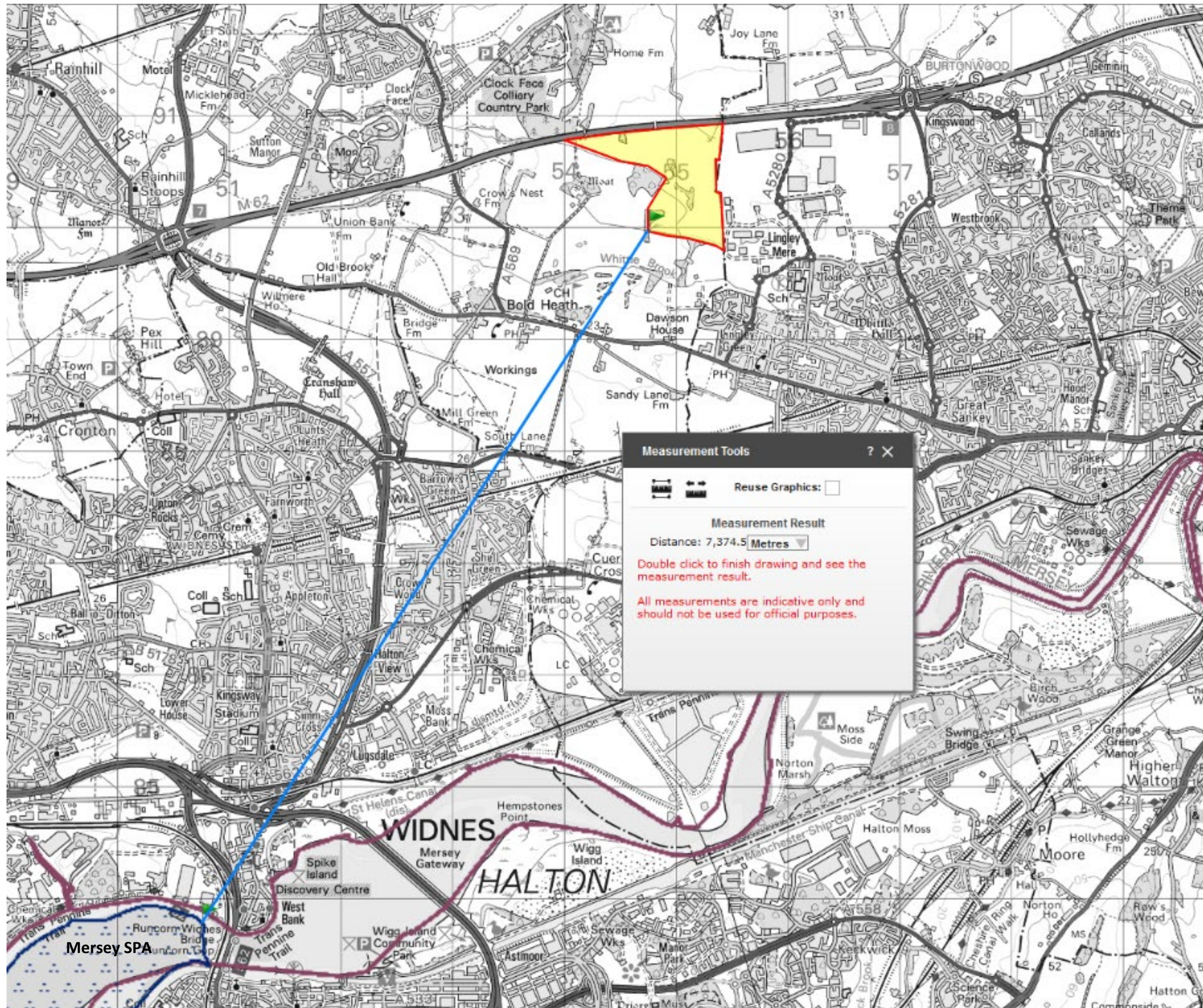
English name	Latin name
Bewick's swan	<i>Cygnus Columbianus bewickii</i>
Whooper swan	<i>Cygnus cygnus</i>
Merlin	<i>Falco columbarius</i>
Peregrine	<i>Falco peregrinus</i>
Ruff	<i>Philomachus pugnax</i>
Bar-tailed godwit	<i>Limosa lapponica</i>
Short-eared owl	<i>Asio flammeus</i>
Pink footed goose	<i>Anser brachyrhynchus</i>

Figure 1
Location

Omega Zone 8, St Helens

Legend

-  Development Site
-  Mersey SPA



Drawing No.: 16903-01WBS_B

Revision Dates			
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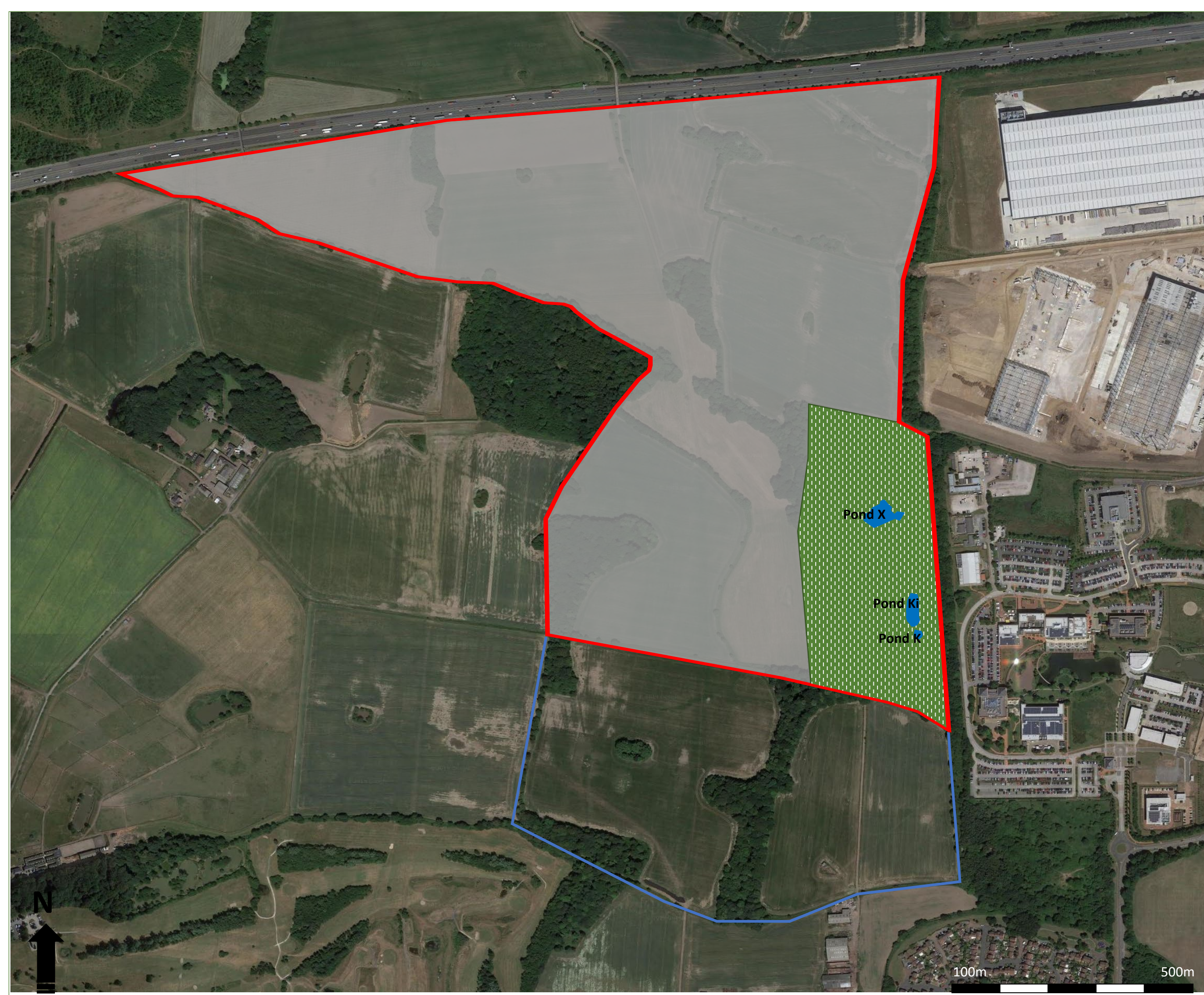
Drawings are diagrammatic and not to scale. Refer to architect drawings for exact measurements

Figure 2
Survey Area

Omega Zone 8, St Helens

Legend

-  Development Boundary / Survey Area
-  Improved Grassland – Suitable Wintering Bird Habitat
-  Arable Land – Limited Wintering Bird Habitat
-  Permanent Ponds within grassland habitat
-  Additional Survey Area



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2. SURVEY METHODS

2.1. DESK STUDY

- 2.1.1. A desk-study was undertaken as part of the EIA assessment which included a data trawl of all protected and notable species that have been recorded within 2km of the Site, including any recording of birds. All records were obtained from two cross-border sources; Merseyside BioBank Records¹ (St Helens) and RECORD LRC² (Warrington/Cheshire).
- 2.1.2. There was no mention of a wintering bird assemblage associated with the Site. All bird records appeared to be breeding records.

2.2. FIELD SURVEY

- 2.2.1. The Site was visited six times between October and December 2019, inclusive, to undertake distribution and abundance Surveys in accordance with recommended guidance set out by the Merseyside Environmental Advisory Service (MEAS), who recommend those in Scottish Natural Heritage 2014³ and Government standing advice⁴. (refer to 5.1)
- 2.2.2. The advice from MEAS recommends 2 visits per month to give a minimum of 36 hours survey over the period of September to end of March inclusive. Sites visits were conducted at periods of peak high tide times when birds are most likely to be present and surveyors remained on site for a minimum of 3 hours per visit. A total of 24 hours has so far been spent on site surveying for wintering birds up until 30 December 2019.
- 2.2.3. The surveys recorded numbers and distribution of all birds using the Site including wintering and migrant birds where present. Additional notes were made for specific

¹ <https://activenaturalist.org.uk/mbb>

² www.record-lrc.co.uk

³ **Scottish Natural Heritage, 2014.** Recommended bird survey methods to inform impact assessment of onshore wind farms. (<https://www.nature.scot/sites/default/files/2018-06/Guidance%20Note%20-%20Recommended%20bird%20survey%20methods%20to%20inform%20impact%20assessment%20of%20onshore%20windfarms.pdf>)

⁴ <https://www.gov.uk/guidance/wild-birds-surveys-and-monitoring-for-onshore-wind-farms>

habitat features or species present on the Site. The Site entirely was walked each visit, with a prolonged effort focussing on the Improved Grassland habitat which is suitable for wintering waders (refer to Figure 2)

- 2.2.4. The Site was also surveyed for use by non-qualifying species (Table 4) including pink footed goose, Beswick's swan and whooper swan, which are found to use agricultural land across Merseyside⁵.

Personnel

- 2.2.5. The survey was carried out by Senior Ecologist Mark Morgan BSc ACIEEM with assistance from Ecologist Joshua Cartlidge MSc.

⁵ **St Helens Council, 2018.** St Helens Borough Local Plan 2020-2035 Habitats Regulations Assessment

3. FIELD RESULTS

3.1. WINTERING BIRD SURVEY (WBS) 1

Table 5: October Survey I Conditions

Criteria	Unit
Date	11/10/2019
Survey Time	10:30am – 13:49PM
High Tide time	10:49
Weather Conditions	Wind: B0-B1; Rain: 1, Light showers until 11:30 then dry and overcast with occasional sunny spells

Survey Results

- 3.1.1. No Mersey Estuary SPA qualifying species were observed during the survey. Refer to Figure 3.
- 3.1.2. Additional observations were made for three bird species on the Site. Two of these species were found in suitable wintering bird habitat including large numbers (approximately 150) of mallard (*Anas platyrhynchos*) observed within Pond X. Four mallard were noted further north on Site. Pheasant (*Phasianus colchicus*) and approximately 40 wood pigeon (*Columba palumbus*) were also observed at the Site within arable land on site.



Photograph 1: Mallard within Pond X during Survey #1

3.2. WBS 2

Table 6: October Survey II Conditions

Criteria	Unit
Date	28/10/2019
Survey Time	10:45am – 13:55PM
High Tide time	10:49
Weather Conditions	Wind: B0-B1; Rain: 0, Clear and bright

Survey Results

- 3.2.1. No Mersey Estuary SPA qualifying species were observed during the survey. Refer to Figure 4.
- 3.2.2. Additional observations were made for a total of two species using wintering bird habitat on the Site during. These consisted of approximately 40 mallards using areas of pooled water ~50m north of Pond X and approximately 100 individuals within Pond X. Approximately 200 wood pigeons were also noted within arable land on site.



Photograph 2: Pooled water north of Pond X containing ~40 mallard

3.3. WBS 3

Table 7: November Survey I Conditions

Criteria	Unit
Date	11/11/2019
Survey Time	10:15am – 13:20pm
High Tide time	10:18
Weather Conditions	Wind: B0; Rain: 0, Overcast, dry and bright

Survey Results

- 3.3.1. No Mersey Estuary SPA qualifying were observed during the survey. Refer to Figure 5.
- 3.3.2. Additional observations were made for mallard, approximately 90 individuals using Pond X, occasionally flying away from the Pond but with no additional mallards coming to site. The improved grassland field contained much pooled water. Approximately 200 wood pigeons were also noted using the arable land to the north of the Site.



Photograph 3: Pooled water along the eastern boundary of the improved grassland field during Survey #3

3.4. WBS 4

Table 8: November Survey II Conditions

Criteria	Unit
Date	26/11/2019
Survey Time	10:30am – 13:30pm
High Tide time	10:30
Weather Conditions	Wind: B0-B1; Rain: 0, Overcast, damp, no rain

Survey Results

- 3.4.1. No Mersey Estuary SPA qualifying were observed during the survey. Refer to Figure 6.
- 3.4.2. Additional observations were made for mallard, approximately 70 individuals using Pond X, and approximately 70 individuals feeding within seasonal pooling, approximately 50m north of Pond X. Approximately 200 wood pigeons were also noted using the arable land to the north of the Site.



Photograph 4: Mallard within Pond X during Survey #4



Photograph 5: Typical sight of arable land to north of the Site during Survey #4

3.5. WBS 5

Table 9: December Survey I Conditions

Criteria	Unit
Date	12/12/2019
Survey Time	10:50am – 13:50pm
High Tide time	10:56am
Weather Conditions	Wind: B0; Rain: 1, Clear, bright with occasional showers

Survey Results

- 3.5.1. No Mersey Estuary SPA qualifying species were observed during the survey. Refer to Figure 7.
- 3.5.2. Additional observations were made for mallard, approximately 70 individuals using Pond X, and approximately 30 individuals towards the northeast of the Site within arable land. Approximately 100 wood pigeons were also noted using the arable land to the north of the Site.



Photograph 6: Mallard within Pond X during Survey #5

3.6. WBS 6

Table 10: December Survey II Conditions

Criteria	Unit
Date	30/12/2019
Survey Time	13:30am – 16:30pm
High Tide time	13:31pm
Weather Conditions	Wind: B0; Rain: 0, Overcast at times, clear at times, no rain, damp ground

Survey Results

- 3.6.1. No Mersey Estuary SPA qualifying were observed during the survey. Refer to Figure 8.
- 3.6.2. Additional observations were made for mallard, approximately 60 individuals using Pond X. Approximately 100 wood pigeons were also noted using the arable land to the north of the Site.



Photograph 7: Pond X during Survey #6



Photograph 8: The northwestern corner of the Site during Survey #6

Figure 3
Survey 1

Omega Zone 8, St Helens

Legend

- Development Boundary / Survey Area
- Improved Grassland – Wintering Bird Habitat
- Arable Land – Non-Wintering Bird Habitat
- Permanent Ponds
- Additional Survey Area

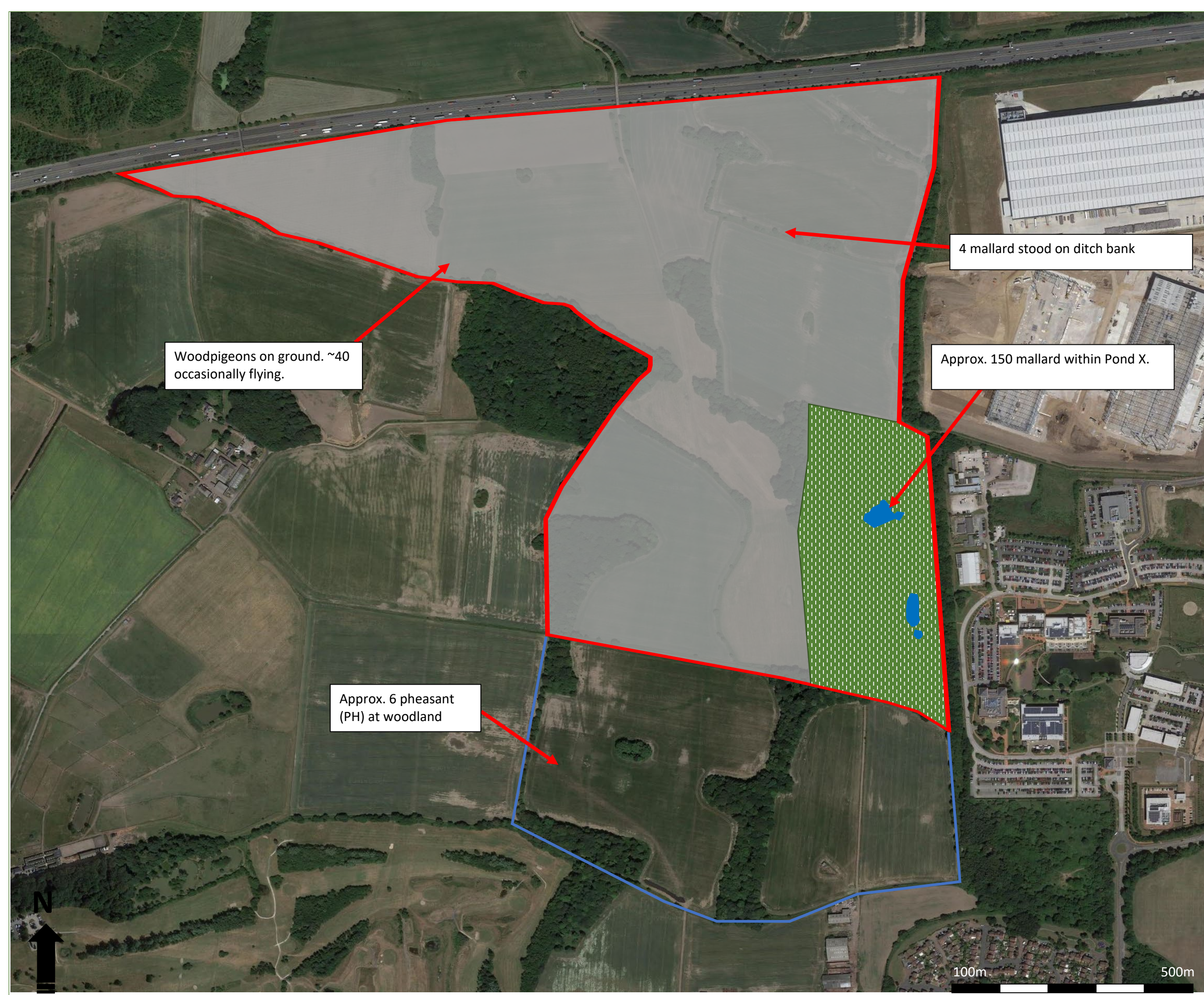


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Figure 4
Survey 2

Omega Zone 8, St Helens

Legend

- Development Boundary / Survey Area
- Improved Grassland – Wintering Bird Habitat
- Arable Land – Non-Wintering Bird Habitat
- Permanent Ponds
- Additional Survey Area

~40 mallard within seasonal pooling

~100 mallard within Pond X.

~4 yellowhammer within hedgerow



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100m 500m

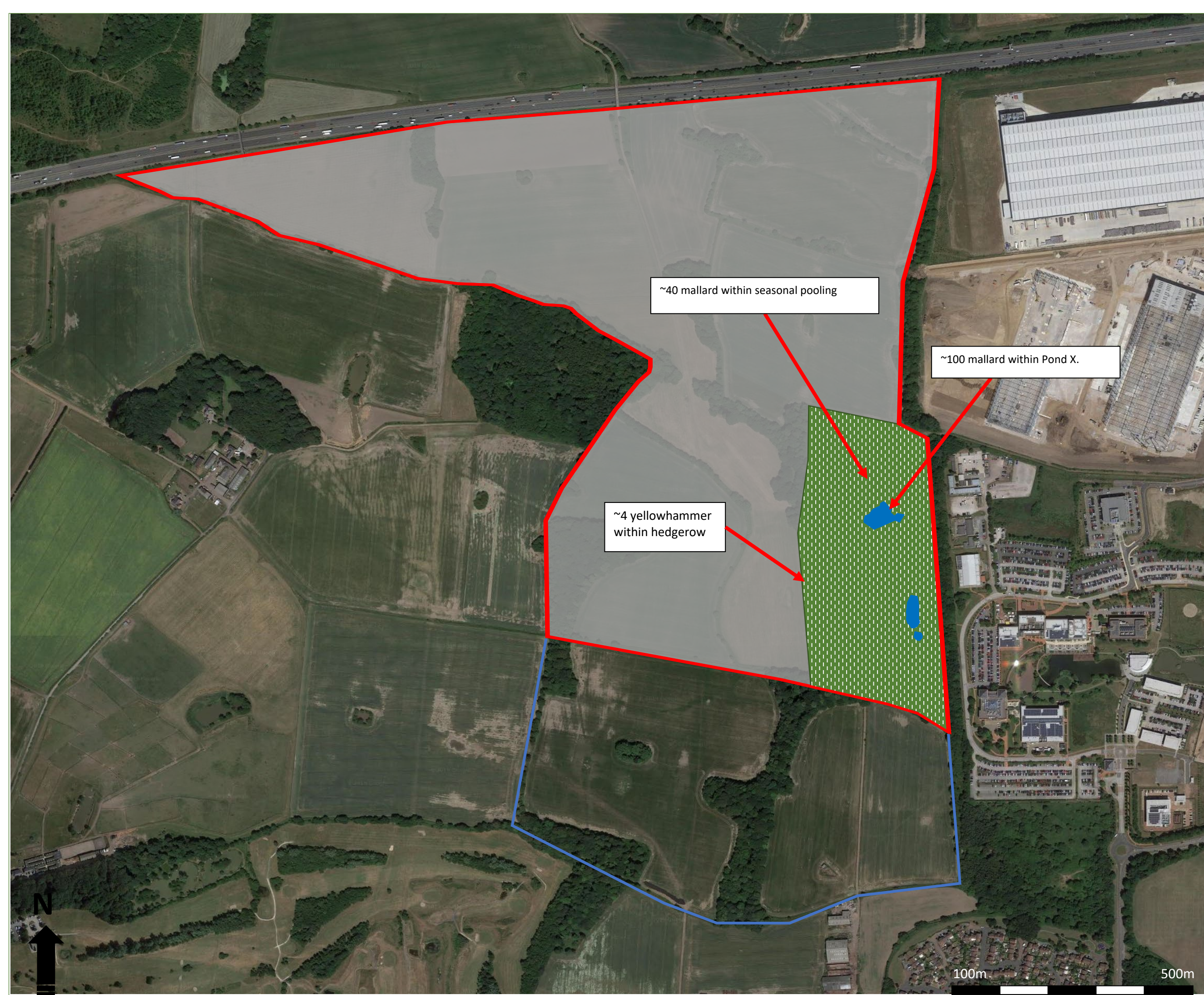


Figure 5
Survey 3

Omega Zone 8, St Helens

Legend

- Development Boundary / Survey Area
- Improved Grassland – Wintering Bird Habitat
- Arable Land – Non-Wintering Bird Habitat
- Permanent Ponds
- Additional Survey Area

~90 mallard within Pond X.



Drawing No.: 16903-05WBS_A

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100m 500m

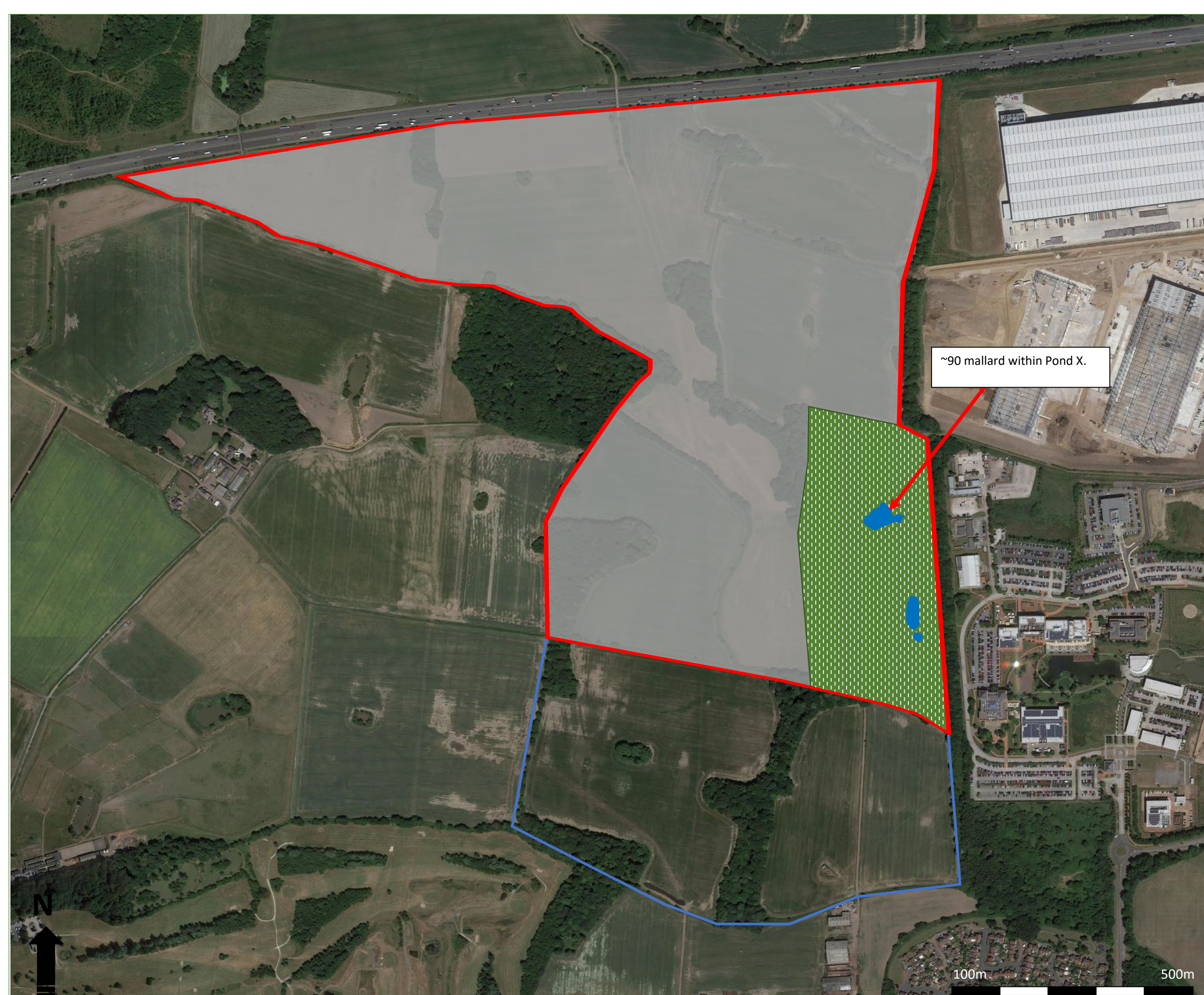


Figure 6
Survey 4

Omega Zone 8, St Helens

Legend

- Development Boundary / Survey Area
- Improved Grassland – Wintering Bird Habitat
- Arable Land – Non-Wintering Bird Habitat
- Permanent Ponds
- Additional Survey Area



Drawing No.: 16903-06WBS_A

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~30 mallard within seasonal pooling

~70 mallard within Pond X.

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Figure 7 Survey 5

Omega Zone 8, St Helens

Legend

- Development Boundary / Survey Area
- Improved Grassland – Wintering Bird Habitat
- Arable Land – Non-Wintering Bird Habitat
- Permanent Ponds
- Additional Survey Area

~60 mallard within Pond X.



Drawing No.: 16903-07WBS_A

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100m 500m

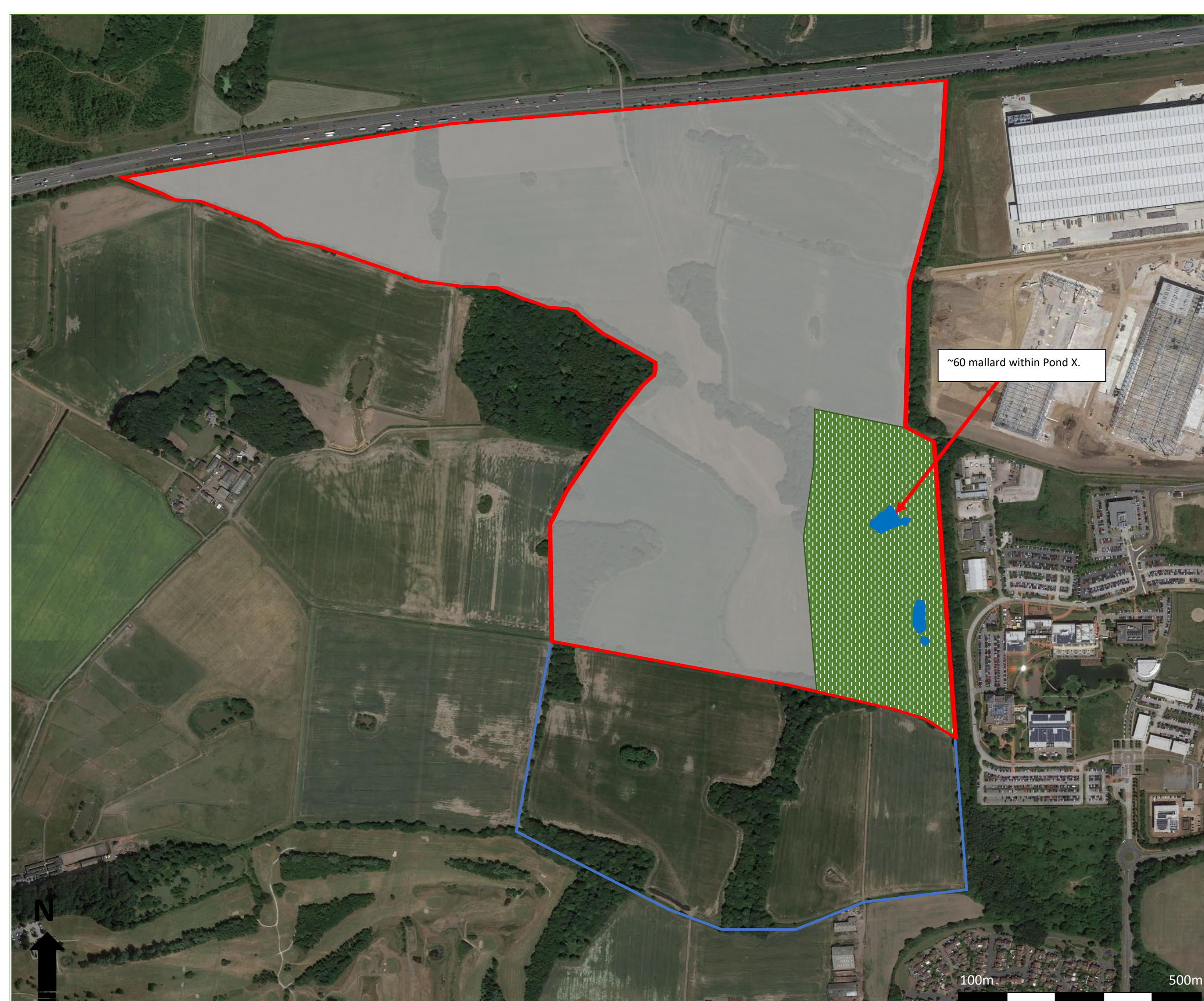







Figure 8 Survey 6

Omega Zone 8, St Helens

Legend

-  Development Boundary / Survey Area
-  Improved Grassland – Wintering Bird Habitat
-  Arable Land – Non-Wintering Bird Habitat
-  Permanent Ponds
-  Additional Survey Area

~60 mallard within Pond X.



Drawing No.: 16903-08WBS_A

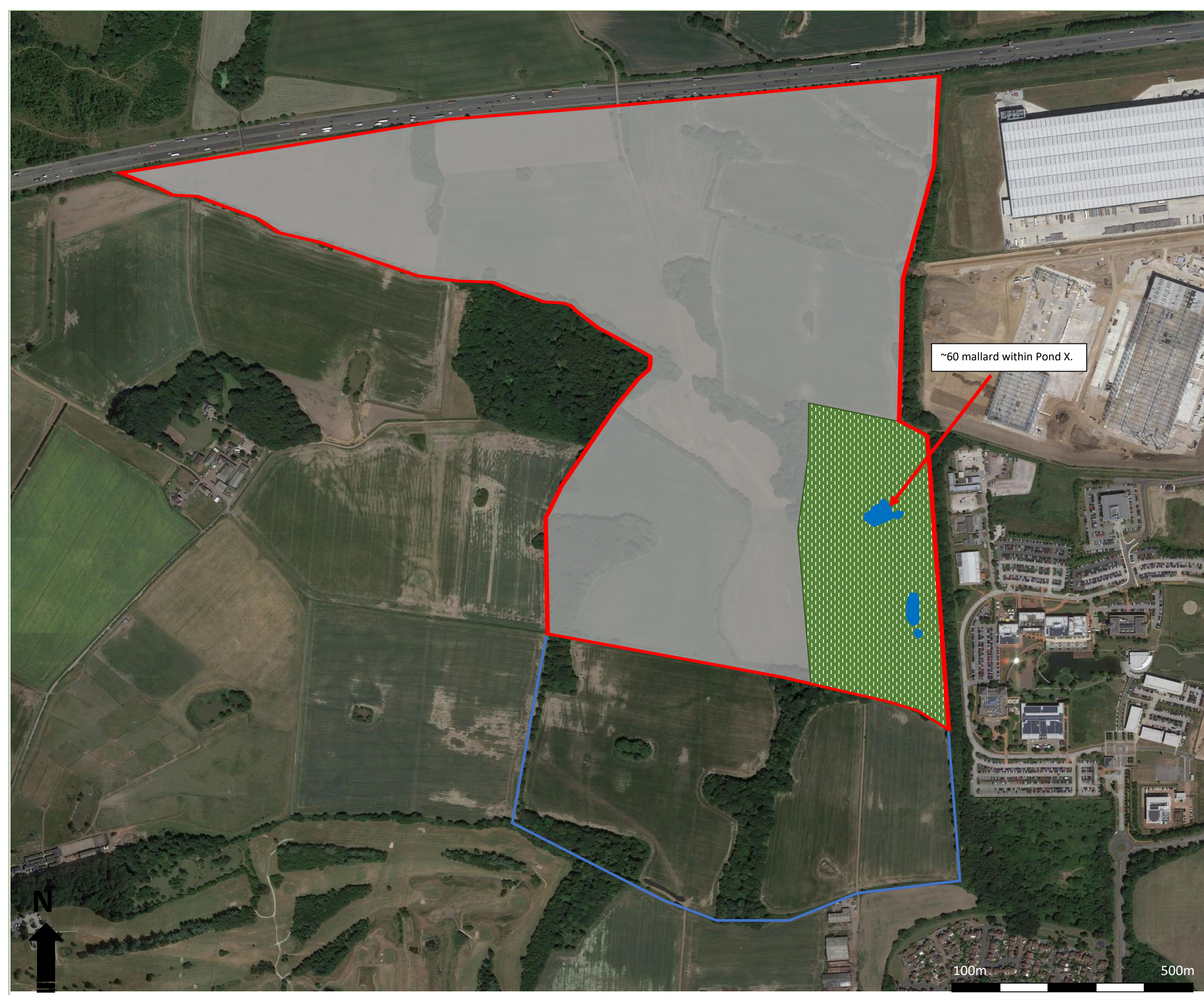
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100m 500m



4. SUMMARY

- 4.1.1. Opportunity exists for wintering birds throughout the Site, with improved grassland in particular providing a moderate amount of potential wintering bird habitat, where seasonal pooling is also present during times of heavy rainfall. Extensive arable habitat is present across the Site which provides further potential habitat for all species.
- 4.1.2. During the six surveys undertaken at the Site to date, no species associated with the Mersey Estuary SPA were observed.
- 4.1.3. A peak of 150+ mallard was recorded during the surveys. These were also recorded during other biological site surveys during the summer months and appear to be permanent residents. Mallard are listed by the British Trust for Ornithology (BTO) in Eaton et al 2015⁶ as an AMBER species⁷ and are not part of the qualifying wintering bird assemblage for Mersey SPA designation.
- 4.1.4. The Site is considered to not be used by SPA qualifying species or migratory bird species and further survey is therefore not recommended.

⁶ Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015) Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man. *British Birds* 108, 708–746.

⁷ Amber Criteria WDMp¹ which represents a moderate non-breeding population decline over 25 years/longer term.

5. APPENDICES

5.1. APPENDIX 1: MEAS METHODOLOGY RECOMMENDATION

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