



Date	21 April 2023
Client	This Land Development Ltd.
Site	Land East of Rayleigh Road, Thundersley, Essex
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Title	Addendum to Ecological Impact Assessment

Introduction and Aims

In 2020, Southern Ecological Solutions Ltd. (SES) was commissioned by This Land Development Ltd. to undertake a suite of ecological surveys and produce an ecological impact assessment (EcIA) report for Land East of Rayleigh Road, Thundersley, in Essex (Ordnance Survey Grid Reference TQ 80381 89140) (hereafter referred to as the site). A plan showing the approximate application site boundary is provided in Appendix 1.

The site was allocated for residential purposes within the now withdrawn Castle Point Borough Council (CPBC) Local Plan under policy HO13 (CPBC, 2019) and is subject to an outline planning application (reference 23/0085/OUT) for the development of up to 455 new homes, a new multi-use community hall, land for the provision of a healthcare facility land for a stand-alone early years and childcare nursery, new vehicular/pedestrian access points from Stadium Way in the north and Daws Heath Road in the south, new greenways and green links, multi-functional open space, green infrastructure, surface water attenuation, landscaping and associated infrastructure. All matters reserved except for access.

An EcIA report was produced following the 2020/2021 ecological surveys (SES, January 2023) however since this report was completed ecological surveys have been updated across the site to provide the most up to date information regarding ecological constraints and opportunities.

This letter report has been prepared as an addendum to the original EcIA (SES, January 2023), which should be referred to for details of survey purpose, methods and limitations.

Summary of Update Ecological Surveys

During 2022 and 2023, updated ecological surveys and assessments were undertaken. These include a desk-based assessment, preliminary ecological appraisal (PEA) and subsequent protected species surveys which were undertaken in accordance with current guidance (CIEEM, 2018). A summary is provided in Table 1.

Table 1. Summary of update ecological surveys undertaken in 2022/23

Ecological survey / assessment	Date undertaken	Survey validity*
Preliminary ecological appraisal / site walkover	June 2022	12 to 18 months
Badger sett scoping & monitoring	Scoping - November 2022 Monitoring – December 2022	12 months
Preliminary bat roost assessment of buildings & trees	Buildings – June 2022 Trees – August 2022	12 months
Dusk emergence / dawn re-entry surveys of buildings (w.r.t bats)	June to August 2022	12 months
Bat activity & static detector surveys	May to October 2022	18 months to 3 years**
Wintering bird surveys	December 2022 to February 2023	18 months**
Breeding bird surveys	May to July 2022	18 months**
Hazel dormouse presence/absence surveys	June to November 2022	18 months**
Detailed invertebrate surveys	May to July 2022	18 months**
Reptile presence/absence surveys	August to September 2022	18 months**
Other notable species (incidental sightings)	May to October 2022	18 months**

* See CIEEM Advice Note on Lifespan of Ecological Reports and Surveys (April 2019)

** Subject to update site walkover to confirm continuity of site conditions

Following the completion of the above updated ecological surveys and assessments, development proposals (Appendix 1) were re-assessed to determine whether the original conclusions as per the September 2023 EcIA were still valid / relevant. Potential impacts and mitigation options were also re-assessed in relation to legal and planning policy obligations and residual effects assessed. The aims of the update ecological surveys and assessments were to:

- Identify any significant changes with regard to the main ecological features within the site;
- Re-determine the presence or likely absence of protected/priority species or habitats;
- Review and identify any legal and planning policy constraints relevant to nature conservation which may affect the development (see Appendix 2);
- Review the likely significant effects on ecological features; and
- Make recommendations for minimising impacts on biodiversity and providing net gains in biodiversity where possible / required in accordance with Chapter 15: Conserving and Enhancing the Natural Environment, of the National Planning Policy Framework (MHCLG, 2021), and relevant nature conservation policies within the withdrawn New Castle Point Local Plan 2018-2033.

Summary of Changes

A summary and evaluation of any changes and updated assessments, compared to the previous surveys and assessments, is provided in Table 2. Updated survey plans and results are provided in Appendix 3, as appropriate.

Table 2. Summary of changes between 2020-2021 and 2022-2023 ecological survey results / assessments

Ecological feature	Summary of 2020/2021 results	Summary of 2022/2023 results	Evaluation of changes
Designated sites	<p>The site lies within the Zone of Influence (Zol) of Blackwater Estuary SPA and Ramsar site, Benfleet and Southend Marches SPA and Ramsar, and Foulness Estuary SPA and Ramsar, which form part of the Essex Estuaries Special Area of Conservation (SAC).</p> <p>Seven Sites of Special Scientific Interest (SSSIs) lie within 5km namely Benfleet and Southend Marshes SSSI, Foulness SSSI, Blackwater Estuary SSSI, Thundersley Great Common SSSI, Great Wood and Dodd's Grove SSSI, Garrold's Meadow SSSI, Hockley Woods SSSI.</p> <p>Four Local Nature Reserves (LNRs) and 21 Local Wildlife Sites (LoWS) lie within 5km, the nearest being Little Haven/Tile Wood Complex LoWS located adjacent to the application site on the far side of the main access track.</p>	<p>An updated desk study confirmed that the results of the 2020/2021 assessment remain the same and continue to be valid.</p>	N/A
Habitats	<p>A total of 12 habitat types were recorded within the study area including: broad-leaved plantation woodland; broad-leaved semi-natural woodland; dense scrub; hedgerows; line of trees; running water; scattered scrub; improved grassland; semi-improved grassland; standing water; tall non-ruderal vegetation; and tall ruderal vegetation.</p>	<p>The habitat types across the site remained consistent with those previously recorded.</p> <p>An error was made in the Phase 1 Habitat Plan with regard to grassland types, which has been corrected, updated and is provided in Appendix 2.</p>	N/A

Ecological feature	Summary of 2020/2021 results	Summary of 2022/2023 results	Evaluation of changes
Hedgerows	A total of eight hedgerows were identified within or surrounding the site, three of which were classified as 'important' under the wildlife criteria of the Hedgerow Regulations 1997.	The site walkover confirmed that the hedgerows remained in the same condition as previously recorded, validating the 2020 survey results.	N/A
Rare and notable plants	No species listed under Schedule 8 or Schedule 9 of the Wildlife and Countryside Act (WCA, 1981) were recorded on site however Snowberry <i>Symphoricarpos albus</i> , an invasive species, was present along the western boundary of a field.	The site walkover confirmed that non-native invasive and rare/notable species remained absent (aside from Snowberry), validating the 2020 survey results.	N/A
Badgers	A total of 13 badger setts were recorded, with subsequent monitoring surveys identifying four active setts (sett 7, 8, 10, and 13) and nine disused setts (1 to 6, 11 and 12). Sett 8 was classified as a main sett and comprised 43 entrances, of which 33 were well-used.	A total of 15 badger setts were recorded, an additional two from the original surveys. Further monitoring (i.e. 21 consecutive days using trigger sticks and trail cameras) was undertaken on all setts which identified eight active setts (sett 3, 4, 7, 8, 9, 10, 12 and 15) and seven disused setts.	<p>An additional two outlier badger setts were recorded in 2022, and activity levels at some setts had changed. Given the mobile nature of badgers and propensity to open up new setts, this change is not unexpected.</p> <p>The main sett (Sett 8) remained active and the overall number of setts did not differ significantly. Therefore, the mitigation and compensation measures provided in the EcIA (SES, January 2023) are still considered appropriate.</p>

Ecological feature	Summary of 2020/2021 results	Summary of 2022/2023 results	Evaluation of changes
Buildings with suitability for roosting bats	<p>Nine buildings were considered to have low suitability with the remainder considered to hold negligible suitability for roosting bats. In addition to these buildings, a complex of concrete structures associated with skateboarding were considered to offer low suitability for roosting bats.</p> <p>During dusk emergence and dawn re-entry surveys, bat roosts were recorded within buildings 1 and 5. Building 1 was found to support a common pipistrelle <i>Pipistrellus pipistrellus</i> day roost and building 5 was found to support a soprano pipistrelle <i>P. pygmaeus</i> day roost.</p>	<p>The site walkover confirmed that the buildings remained in the same condition as previously recorded, validating the 2020 preliminary bat roost assessment results.</p> <p>During dusk emergence and dawn re-entry surveys, a bat roost was recorded within buildings 1 only. Building 1 was still found to support a common pipistrelle day roost. Roosting bats were not recorded within building 5 or any of the other buildings subject to survey.</p>	<p>The suitability of buildings for roosting bats did not change from the original assessment.</p> <p>During 2022, roosting bats were not recorded in Building 5. Given the type of roost recorded previously (day roost of a common and widespread species), and tendency of bats to move around between different day/transitional roosts, the absence of roosting bats from Building 5 in 2022 is not unexpected.</p> <p>Nevertheless, a bat roost remains protected whether bats are present or not. Therefore, Building 5 should still be considered to support roosting bats and the mitigation and compensation measures provided in the EcIA (SES, January 2023) are still considered appropriate.</p>
Trees with suitability for roosting bats	<p>A total of 96 trees were assessed as having suitability for roosting bats – 15 with moderate suitability and 81 with low suitability.</p> <p>Following an aerial inspection, five trees were downgraded to negligible or low suitability while 11 were considered to still have moderate suitability. In addition, tree T76 was considered suitable for hibernating bats due to a large trunk cavity extending up approximately 80cm.</p>	<p>The survey confirmed that trees with suitability for roosting bats remained present and were in the same condition as previously recorded, validating the 2020 survey results.</p>	N/A

Ecological feature	Summary of 2020/2021 results	Summary of 2022/2023 results	Evaluation of changes
Bat activity & static detector surveys	<p>A total of nine species were recorded during transect surveys; common pipistrelle, soprano pipistrelle, Daubenton's <i>Myotis daubentonii</i>, brown long-eared bat <i>Plecotus auritus</i>, barbastelle <i>Barbastella barbastellus</i>, serotine <i>Eptesicus serotinus</i> and noctule <i>Nyctalus noctula</i> along with <i>Nyctalus sp.</i> and <i>Myotis sp.</i> Activity was relatively low and consistent throughout the site with highest levels of activity recorded along the site's field boundary habitats (woodland, scrub, hedgerow) and around waterbodies (especially the fishing lake). The majority of bat passes were from common and soprano pipistrelles with the number of passes considered likely to be from a lower number of the same individuals foraging. Only low numbers of other bat species were recorded including a single barbastelle pass in May 2021.</p>	<p>A total of seven species were recorded during the transect surveys; common pipistrelle, soprano pipistrelle, Daubenton's <i>Myotis daubentonii</i>, brown long-eared bat <i>Plecotus auritus</i>, and noctule <i>Nyctalus noctula</i> along with <i>Pipistrellus sp.</i> and <i>Myotis sp.</i> Activity levels were consistent with those recorded previously and was focussed around the same habitat types / areas of the site.</p> <p>Analysis of data from static deployments during 2022 showed a slightly different assemblage of bat species with barbastelle and Leisler's bat <i>Nyctalus leisleri</i> identified on site. In addition, undetermined pipistrelle species were also recorded. Activity was generally low throughout the site with the great majority of activity from common and soprano pipistrelle, with only very low numbers of individual passes from other species.</p>	<p>A similar number of bat species were recorded during the original and updated bat activity surveys. The differences are not considered significant given the nature of bats to move across the landscape, as they adapt to local changes in prey availability, habitat availability etc.</p> <p>Barbastelle were not recorded in 2022, and only low numbers were recorded in 2020, confirming that the site is not an important resource for this Annex I species.</p> <p>Therefore, the mitigation and compensation measures provided in the EcIA (SES, January 2023) are still considered appropriate.</p>

Ecological feature	Summary of 2020/2021 results	Summary of 2022/2023 results	Evaluation of changes
Wintering birds	<p>A total of 30 species were recorded using the site with 18 species regularly recorded (i.e. were recorded more than once). 12 species were recorded with notable conservation status including woodpigeon <i>Columba palumbus</i>, wren <i>Troglodytes troglodytes</i>, dunnoek <i>Prunella modularis</i>, fieldfare <i>Turdus pilaris</i>, house sparrow <i>Passer domesticus</i>, redwing <i>Turdus iliacus</i>, starling <i>Sturnus vulgaris</i>, song thrush <i>Turdus philomelos</i>, black-headed gull <i>Chroicocephalus ridibundus</i>, mallard <i>Anas platyrhynchos</i>, lesser black-backed gull <i>Larus fuscus</i> and herring gull <i>Larus argentatus</i>.</p>	<p>A total of 29 species were recorded using the site with 17 species regularly recorded (i.e. were recorded more than once). 15 species were recorded with notable conservation status including woodpigeon, wren, fieldfare, linnet <i>Linaria cannabina</i>, redwing <i>Turdus iliacus</i>, skylark <i>Alauda arvensis</i>, and black-headed gull.</p>	<p>The results of the 2020/2021 and 2022/2023 surveys are consistent and any differences are not considered significant.</p> <p>In terms of Birds of Conservation Concern (BoCC), lesser black-backed gull and starling were not recorded in 2022/2023, whereas they were in 2020/2021. Linnet and skylark were not recorded in 2020/2021, whereas they were in 2022/2023.</p> <p>None of these species are qualifying species for the designation of European designated sites, and most are common and widespread throughout southern England. Therefore, the differences between species recorded within data sets are not considered significant and the mitigation and compensation measures provided in the EcIA (SES, January 2023) are still considered appropriate.</p>

Ecological feature	Summary of 2020/2021 results	Summary of 2022/2023 results	Evaluation of changes
Breeding birds	<p>A total of 42 species were recorded, of which 38 were considered likely to be breeding or utilising the site during the breeding seasons of 2020 and 2021. Eight red-listed Birds of Conservation Concern (BoCC) and 10 amber-listed BoCC were recorded. Schedule 1 listed green sandpiper <i>Tringa ochropus</i> were recorded, but were not considered to be breeding on site.</p>	<p>A total of 31 species were recorded, of which 18 were considered likely to be breeding or utilising the site during the 2022 breeding season. Two red-listed BoCC and eight amber-listed BoCC were recorded. No Schedule 1 species were recorded.</p>	<p>A fewer number of species were recorded breeding or utilising the site during the 2022 breeding season, with only two red-listed species recorded during the most recent surveys. However, of the eight red-listed species recorded in 2020/2021, only two were considered to be likely breeding on site (song thrush and linnet), which is reflective of the 2022 surveys.</p> <p>Sskylark were recorded breeding on site during 2022, whereas they were not in 2020/2021.</p> <p>The overall number of species recorded across both data sets falls within the 'district' level of importance (Fuller 1980).</p> <p>The mitigation and compensation measures provided in the EcIA (SES, January 2023) are still considered appropriate, although given the presence of breeding skylark within the site (as recorded in 2022), offsite mitigation will likely be required for this species in the form of skylark plots, to be informed by a skylark mitigation strategy.</p>

Ecological feature	Summary of 2020/2021 results	Summary of 2022/2023 results	Evaluation of changes
GCN	<p>Aquatic habitat on site was limited to a single large reservoir (pond 1) stocked with large numbers of fish and a dry basin (pond 2) within the south-west of the site. An additional two ponds were present within 500m of the site (pond 3 and 4), the closest of which was pond 3 at 110m to the east (although this pond was noted as dry).</p> <p>eDNA surveys were undertaken on pond 1 and 4, both ponds returned a negative result (i.e. GCN were not recorded in these ponds) and GCN were considered absent from the site.</p>	<p>The site walkover confirmed that the ponds remained in the same condition as previously recorded, validating the 2021 survey results and GCN are still considered absent from the site.</p>	N/A
Hazel dormice	<p>Despite suitable habitat being present, no evidence of hazel dormouse was recorded during the surveys indicating that this species is absent from the site.</p>	<p>No evidence of hazel dormouse was recorded during the updated surveys, indicating that this species continues to be absent from the site.</p>	N/A
Invertebrates	<p>A total of 286 species were recorded. The species were mainly associated with grassland and trees and scrub, with a few vagrant hoverflies from wetlands, plus a single coastal species which is found in a great range of habitats. Four species of conservation concern were recorded, two of which are Nationally Scarce species (one of which is also a priority species) and two are priority species based on national declines while nevertheless remaining widespread.</p>	<p>Repeat surveys in 2022 reported a smaller assemblage: 227 species and two species of conservation concern. The species were again mainly associated with grassland and trees.</p> <p>Both species of conservation concern are priority species based on national declines while nevertheless remaining widespread.</p>	<p>These differences are attributed to between year differences including the dry conditions of 2022.</p> <p>The overall number of species recorded falls within the 'district' level of importance in both years.</p> <p>The mitigation and compensation measures provided in the EcIA (SES, January 2023) are therefore still considered appropriate.</p>

Ecological feature	Summary of 2020/2021 results	Summary of 2022/2023 results	Evaluation of changes
Otter & water vole	<p>Otter were considered likely absent from the site and surrounding area given the lack of recent records and absence of nearby waterways.</p> <p>No evidence of water vole was recorded on site. The stream on site was generally dry, with a maximum depth of approximately 15cm. It was heavily shaded along most of its length, with only small areas of bankside vegetation suitable for water vole. The stream was therefore considered to provide poor habitat, with the steep-sided reservoir providing more optimal habitat however there is little cover and regular disturbance from the public in this area reducing its suitability.</p>	<p>The site walkover confirmed that the stream remained in the same condition as previously recorded, validating the 2020/2021 survey results and otter and water vole are still considered absent from the site.</p>	N/A
Reptiles	<p>Slow-worm and common lizard were recorded within the site. The large majority of sightings were within the west of the site. Populations of both species were considered as 'low', according to the Froglife (1999) standard.</p>	<p>Slow-worm and common lizard were again recorded within the site, in similar locations as 2020. However, in 2022 the population of common lizard was considered 'good', whilst the slow-worm population was still considered as 'low', according to the Froglife (1999) standard.</p>	<p>A higher number of common lizard were recorded in 2022 (peak count 24) when compared to 2020 (peak count 2).</p> <p>The level of mitigation / compensation that is recommended in the EcIA (SES, January 2023), i.e. trapping and translocation in accordance with a reptile mitigation strategy. Therefore, despite the increased number of common lizard recorded in 2022, the mitigation and compensation measures provided in the EcIA is considered appropriate.</p>
Other notable species	<p>No evidence of hedgehog, harvest mouse or common toad was recorded on site. However, given the suitability of the site for these species and presence of local records, it was considered that the site could support low numbers.</p>	<p>As with 2020/2021, no evidence of other notable species were recorded. However, given the inherent suitability of the site for these species it was considered that the site could support low numbers.</p>	N/A

Conclusion

SES were instructed to prepare a letter report as an addendum to the original EclA (SES, January 2023). An EclA report was produced following the 2020/2021 ecological surveys (SES, January 2023) however since this report was completed ecological surveys have been updated across the site where required to provide the most up to date information regarding ecological constraints and opportunities.

A summary of the updated ecological surveys and assessments has been provided in this letter report (Table 2 above) along with an evaluation of any changes.

As shown in Table 2, although some changes have occurred since the original surveys were undertaken, these are not considered to be significant, and it is considered that the mitigation provided within the original EclA (SES, January 2023) is still appropriate and proportionate.

References

Castle Point Borough Council (CPBC) (March 2022) Local Plan 2018-2033 (withdrawn 15 June 2022)

CIEEM (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, 3rd Edition*. Chartered Institute of Ecology and Environmental Management, Winchester.

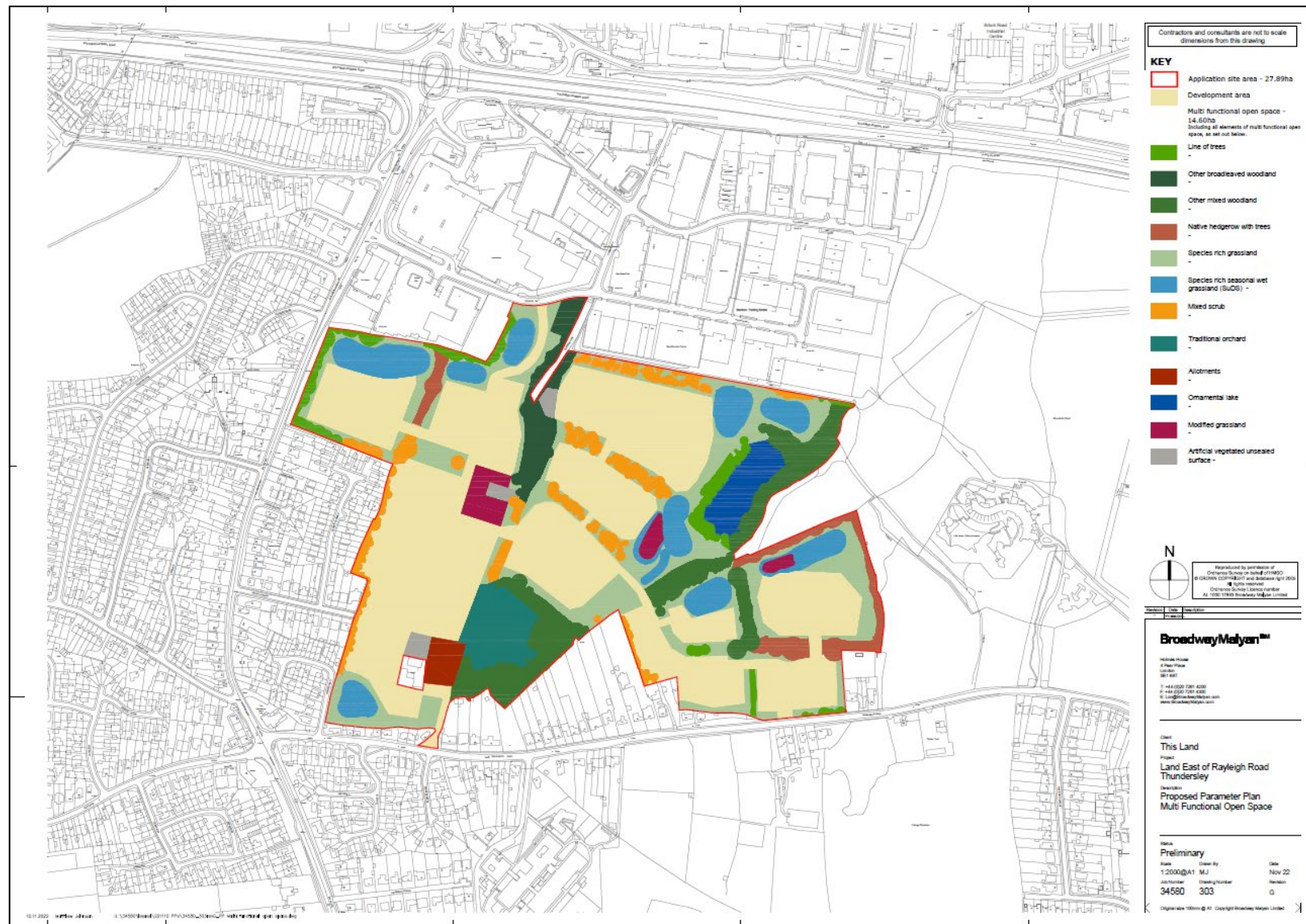
CIEEM (April 2019) *Advice note on lifespan of ecological reports & surveys*. Chartered Institute of Ecology and Environmental Management, Winchester.

Fuller, R.J., (1980). *A method for assessing the ornithological interest of sites for conservation*. Biological Conservation 17: 229-239.

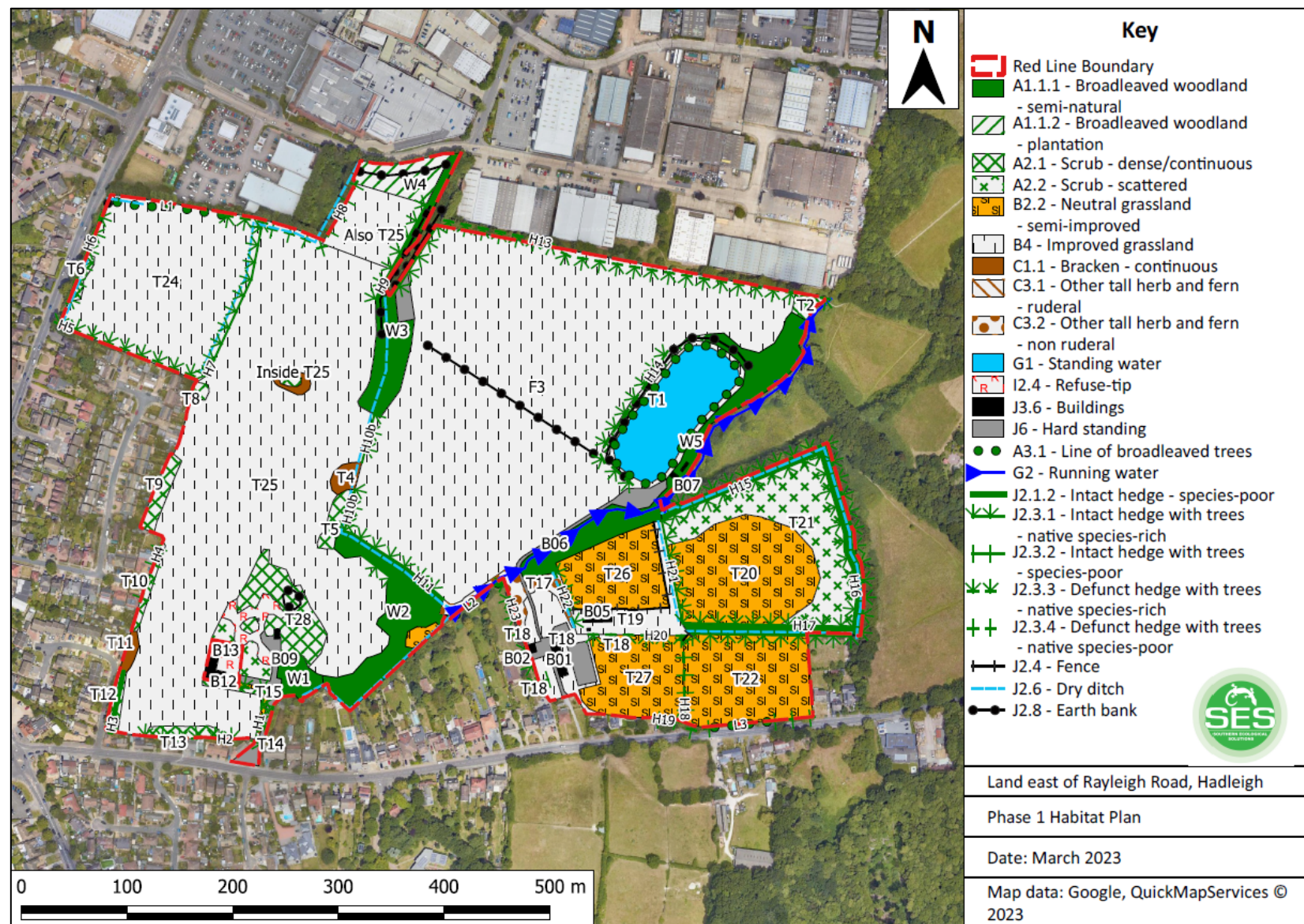
Ministry of Housing, Communities and Local Government (MHCLG) (2021) *National Planning Policy Framework*. [Online]. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

Southern Ecological Solutions (January, 2023). Rayleigh Road, Hadleigh, Essex – Ecological Impact Assessment Rev D. Unpublished

Appendix 1 – Proposed Development Plans



Appendix 2 – Updated Phase 1 Habitat Plan

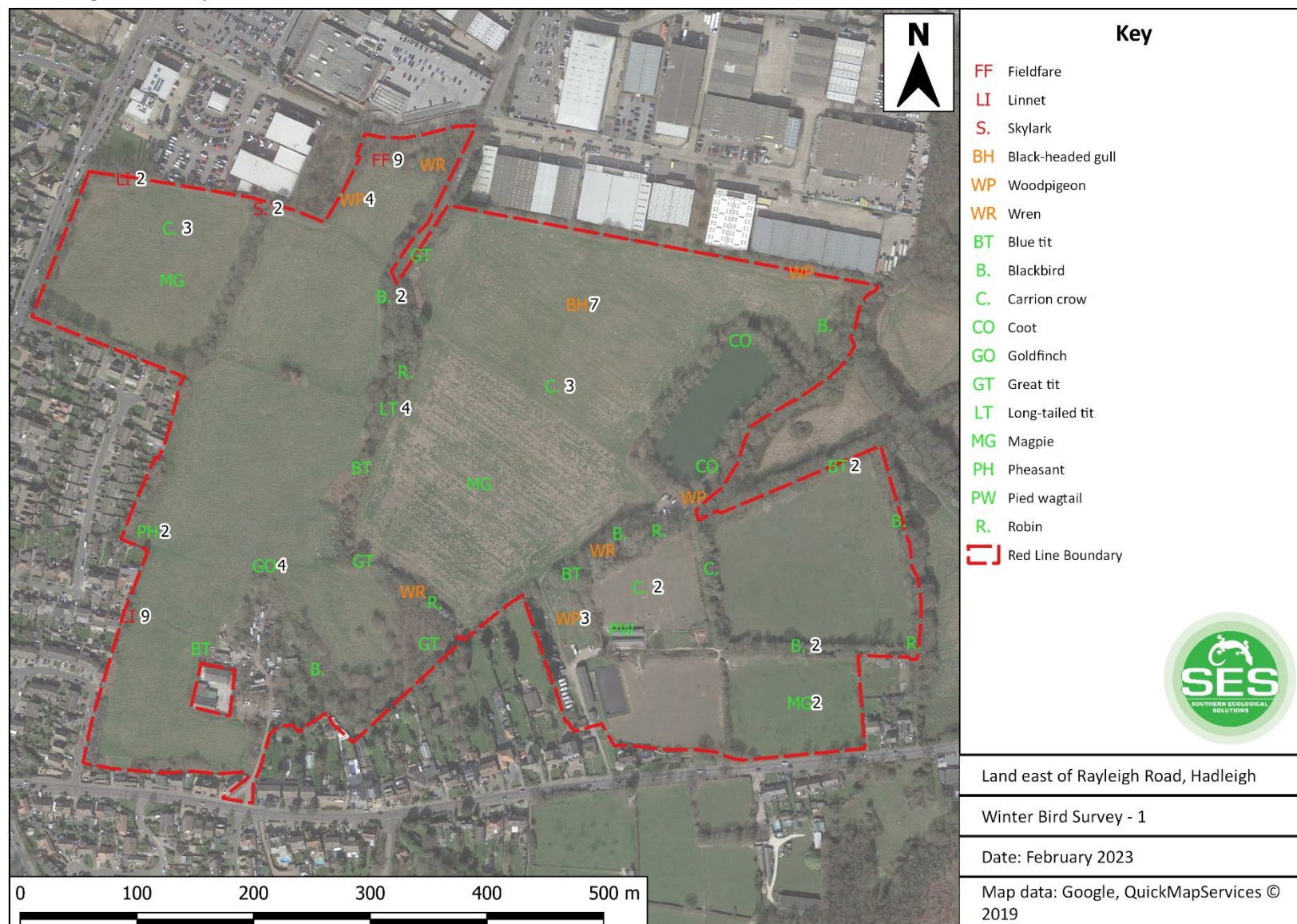


Appendix 3 – Updated Protected / Notable Species Plans

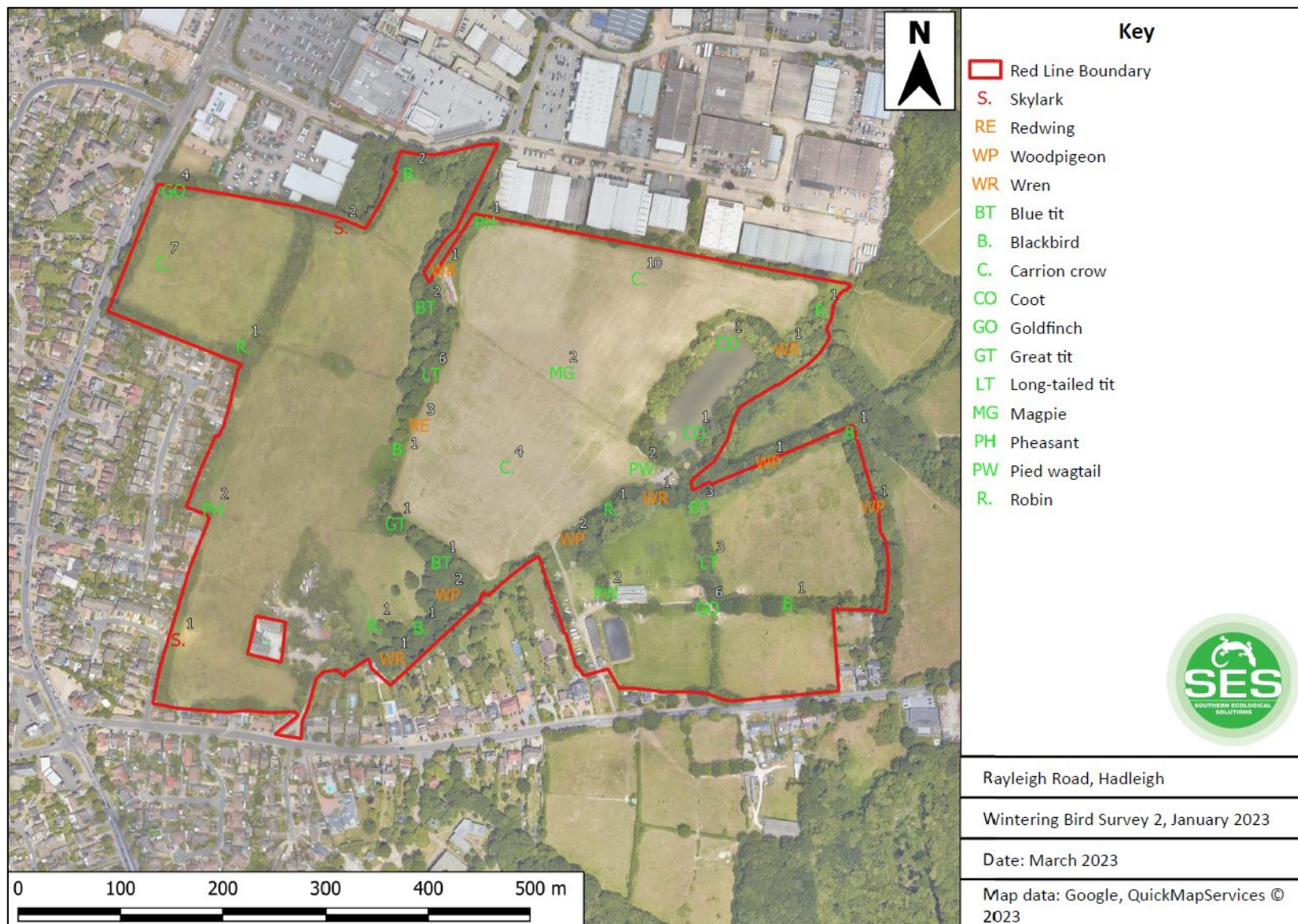
Bat Activity Hotspots 2022



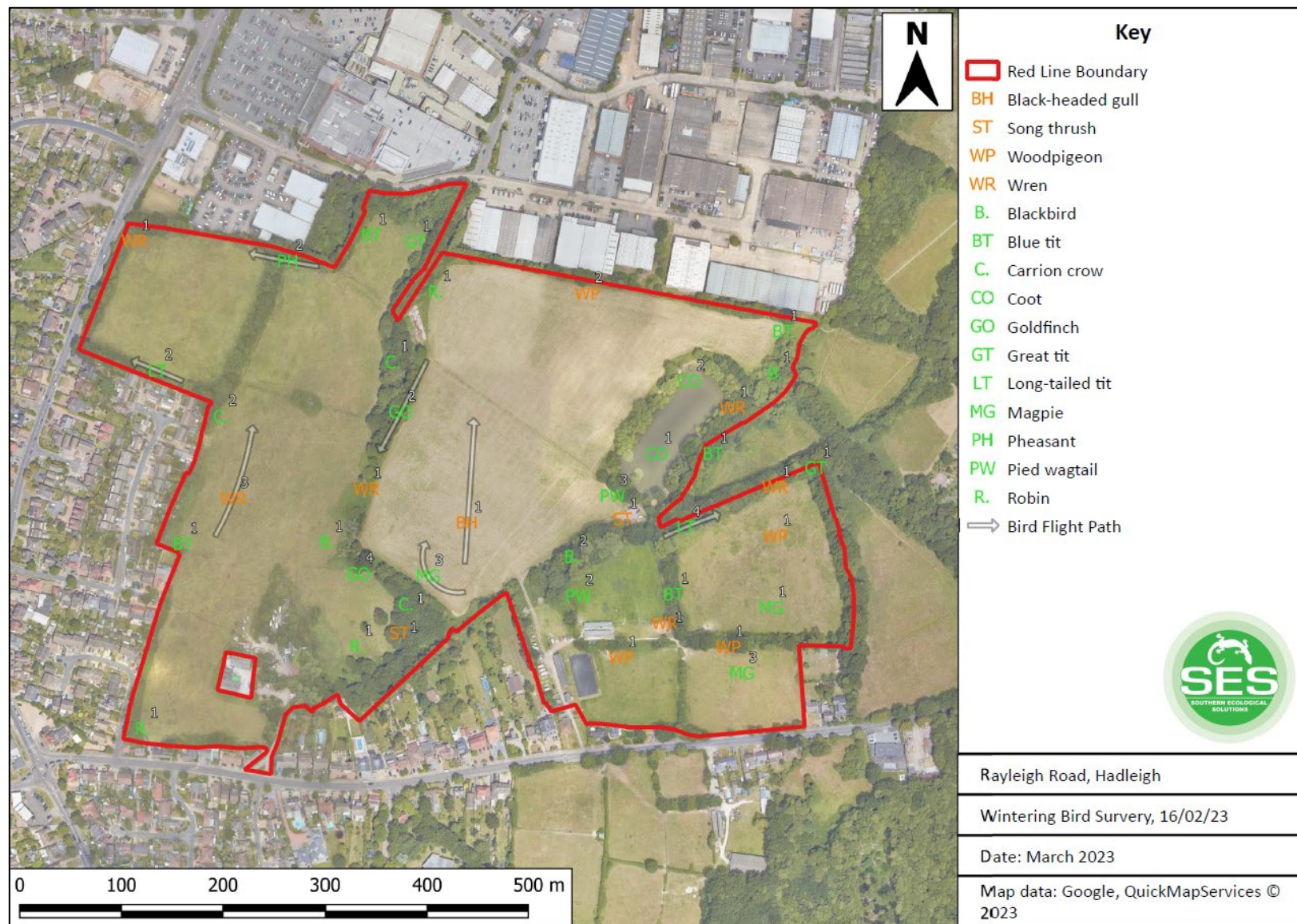
Wintering Bird Survey Results December 2022



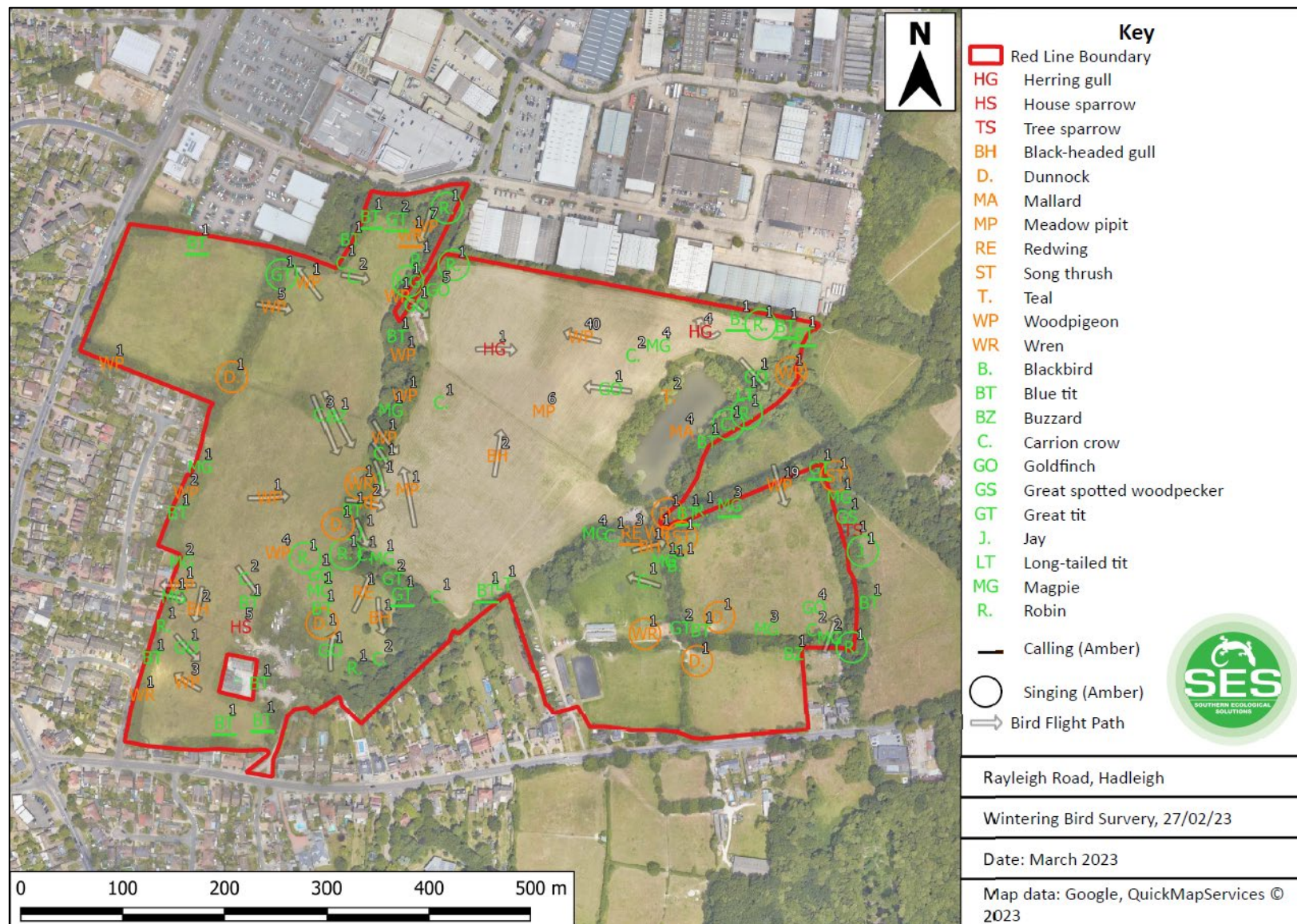
Wintering Bird Survey Results January 2023



Wintering Bird Survey Results February 2023 (16/02/2023)



Wintering Bird Survey Results February 2023 (27/02/2023)



Breeding Bird Survey Results 2022



Detailed reptile survey results 2022

Visit No.	Date	Temperature (°C)	Cloud (%)	Wind (Beaufort)	Precipitation	Species	Location
1	26/08/2022	14	5	1	0	14 x common lizard (6 female, 8 juvenile)	Grassland habitats – Field Compartments 1 & 2.
2	02/09/2022	17	10	1	0	6 x common lizard (2 female, 1 male, 3 juvenile)	Grassland habitats – Field Compartment 1 & 2.
3	05/09/2022	17	30	1	0	8 x common lizard (2 male, 6 female, 1 juvenile)	Grassland habitats – Field Compartments 1 & 2.
4	10/09/2022	14	100	1	0	24 x common lizard (9 male, 12 female, 3 juvenile)	Grassland habitats - Field Compartment 1, 2 and 3.
5	14/09/2022	17	100	1	0	17 x common lizard (4 male, 11 female, 2 juvenile) 9 x slow worm (1 female, 3 male, 5 juvenile)	Grassland habitats - Field Compartments 1 & 2.
6	17/09/2022	10	0	0	0	4 x common lizard (3 female, 1 male)	Grassland habitats - Field Compartment 1 & 2.
7	26/09/2022	12	50	3	0	17 x common lizard (7 male, 10 female, 2 juvenile) 7 x juvenile slow worm	Grassland habitats - Field Compartment 1