



Ecological Impact Assessment

Lake 62, Cotswold Water Park

Quinque Stella Holdings Ltd

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Contact Details:

Enzygo Ltd. (Bristol Office)
The Byre
Woodend Lane
Cromhall
Gloucestershire
GL12 8AA

tel: 01454 269237
email: derek.allan@enzygo.com
www: enzygo.com

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For:	Quinque Stella Holdings Ltd
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Author:	Tom Price MSc, BSc (Hons), Qualifying CIEEM Member – Senior Ecologist
Reviewer:	Derek Allan MSc, BSc (Hons), MCIEEM – Director of Ecology

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Enzygo Limited Registered in England No. 6525159
Registered Office Gresham House, 5-7 St. Pauls Street, Leeds, England, LS1 2JG

Contents

1.0 Introduction	1
1.1 Commission	1
1.2 Proposed Development/Identification of Impacts.....	1
1.3 Aims and Objectives	2
1.4 Background/Acknowledgments.....	2
1.5 Local Planning Policy.....	3
1.6 Site Context	4
2.0 Methodology.....	6
2.1 Desk Study	6
2.2 Field Survey	6
2.3 Assessment.....	13
3.0 Baseline Ecological Conditions	21
4.0 Assessment and Mitigation	36
5.0 Enhancement and Monitoring	43
6.0 Conclusion.....	45
7.0 References	46

Tables and Figures

Figure 1 – Survey Area.....	5
Table 1 – Survey Dates and Conditions	6
Table 2 - Calculation of Foraging/Commuting Habitat Score (shown in brackets)	13
Table 3 - Categorisation of Bats by National Rarity	14
Table 4 - Sites/species Valuation System.....	14

Table 5 - BTO Breeding Evidence Criteria	15
Table 6 - Key Reptile Site Register Population Scores.....	17
Table 7 – Ecological Features	21
Table 8 – Assessment of effect and mitigation measures	36
Table 9 – Additional Enhancements	43

Drawings and Appendices

Drawing CRM100005-ENZ-XX-XX-DR-Z-0004– Habitat Map.....	48
Drawing CRM100005-ENZ-XX-XX-DR-Z-0025 – Desk Study Map	49
Drawings CRM100005-ENZ-XX-XX-DR-Z-0001,2,3,5,6,7 – Breeding Bird Survey Maps	50
Drawings CRM100005-ENZ-XX-XX-DR-Z-0008 to 0019 – Wintering Bird Survey Maps	51
Drawings CRM100005-ENZ-XX-XX-DR-Z-0020 to 0023– Bat Activity Maps.....	52
Drawing CRM100005-ENZ-XX-XX-DR-Z-0026 – GLTA Map	53
Drawing CRM100005-ENZ-XX-XX-DR-Z-0024– Reptile Survey Map	54
Appendix A – Proposed Site Plan.....	55
Appendix B – Ground Level Tree Assessment Results	56
Appendix C – Bat Activity Survey Results.....	57
Appendix D – Breeding Bird Survey Results.....	58
Appendix E – Wintering Bird Survey Results	59
Appendix F – Reptile Survey Results.....	60
Appendix G – Legislation and National Planning Policy	61

Non-Technical Summary

- i. In June 2024 Enzygo Ltd was commissioned by Quinque Stella Holdings Ltd (the client) to undertake an Ecological Impact Assessment (EclA) including a suite of Phase II protected species surveys for the land at Lake 62, Cotswold Water Park, Ashton Keynes, Wiltshire SN6 6QT (central grid reference: SU 04057 95397), located within the Wiltshire Council planning authority. Due to the time of commission, phase II surveys were programmed throughout the 2024 season, with remaining months picked up in 2025. In order to get a full season of reptile surveys these were undertaken from Spring through to Autumn 2025. Following this, changes to the proposed layout, and discussion with the LPA, and updated Tree Removal Maps, the report has been finalised in 2026. In June 2026, the report was revised in response to comments from the client.
- ii. The study will inform a planning application for a change of land use and construction of up to 38 holiday units, including a variety of services and facilities.
- iii. It is understood that this report includes data which is now up to 20 months old. The CIEEM Age of Data document (CIEEM, 2019) recommends that ecological data up to 18 months old is likely to remain valid and data between 18 months and 3 years old will need to be assessed by an ecologist to advise on the validity. Multiple other site visits have been undertaken in this time and confirm no significant changes to site. This confirms that the data is likely to remain valid, and updates of these surveys is not deemed necessary in this instance.
- iv. No pre-determination protected species surveys are now required (all have been undertaken), but there is the requirement for the following prior to the determination of planning:
 - LPA Ecologist and Natural England to confirm agreement with this assessment, and advise on the requirement for further survey, mitigation, or points for clarification.
 - Completion of Natural England '*Notice of proposal to cause, carry out or permit an operation requiring Natural England's consent on a SSSI*' form (as application footprint is part of the Cotswold Waterpark SSSI).
 - At the Planning Officer's discretion, Natural England to be consulted on the need for a Habitat Regulations Assessment/Appropriate Assessment (HRA/AA) (due to proximity to North Meadow and Clattinger Farm SAC).
 - Sensitive Lighting Strategy.
 - Biodiversity Net Gain (BNG) Metric, with accompanying BNG Impact Assessment (aka Design Stage Report) and Biodiversity Gain Plan (BGP) where necessary.
- v. The following are required prior to/upon commencement of site works, and it is our understanding that these will form conditions. All are in accordance with the British Standard for Biodiversity BS42020:2013 (BSI, 2013):
 - Biodiversity Enhancement Strategy (BES), including details of new bat & bird boxes, informal hibernacula. Bat boxes to be installed at least at ratio of 1:1 for lost trees with PRF-I features to bat boxes (i.e., 39 bat boxes).
 - Construction Environment Management Plan (CEMP): Biodiversity, including details of:

- Green Infrastructure, Woodland HPI retention and protection (including measures to avoid impacts to protected species within).
 - Aquatic pollution prevention measures.
 - Badger best practice construction measures.
 - Nesting bird check under supervision of Ecological Clerk of Works (ECoW).
 - Sensitive vegetation clearance for Common Reptiles, GCN, Priority Species, under supervision of an ECoW.
 - Measures to prevent spread of invasive Signal Crayfish.
 - Landscape and Ecological Management Plan (LEMP), including details of:
 - New landscape planting.
 - New habitats.
 - Habitat Management and Monitoring Plan (HMMP), including legal & financial details (and persons responsible) to secure significant BNG enhancements onsite for a period of at least 30-years.
- vi. This report demonstrates that, if the mitigation measures set out in above are implemented in full, there will be no significant residual impacts. The proposed application is expected to result in 'no net loss in biodiversity,' and maintenance of favourable conservation status of resident species and no likely significant effects to ecological features which form part of designated sites, in accordance with the National Planning Policy Framework (NPPF) and Local Planning Policy.

1.0 Introduction

1.1 Commission

1.1.1 In June 2024 Enzygo Ltd was commissioned by Quinque Stella Holdings Ltd (the client) to undertake an Ecological Impact Assessment (EclA) including a suite of Phase II protected species surveys for the land at Lake 62, Cotswold Water Park, Ashton Keynes, Wiltshire SN6 6QT (central grid reference: SU 04057 95397), located within the Wiltshire Council planning authority. Due to the time of commission, phase II surveys were programmed throughout the 2024 season, with remaining months picked up in 2025. In order to get a full season of reptile surveys these were undertaken from Spring through to Autumn 2025. Following this, changes to the proposed layout, and discussion with the LPA, and updated Tree Removal Maps, the report has been finalised in 2026. In June 2026, the report was revised in response to comments from the client.

1.1.2 *Enzygo Ltd are not considered to act as a Principal Designer for any mitigation/enhancement strategies identified within this document, in accordance with the Construction (Design and Management) Regulations 2015 (CITB, 2016).*

1.2 Proposed Development/Identification of Impacts

1.2.1 The study will inform a planning application for a change of land use and construction of up to 38 holiday units, including a variety of services and facilities. A corresponding zone of influence has been considered (this includes any transboundary effects regardless of administrative areas).

1.2.2 During the construction phase the following potential impacts have been identified:

- Clearance of vegetation at the edge of the lake to facilitate construction of units, roads, and other infrastructure. Approximately 1.1Ha of woodland and grassland habitat lost to development, equating to around 8.5% of the application footprint. Of this, approximately 0.96ha of woodland is to be lost, accounting for 27% of total woodland present on site. The area lost to development accounts for approximately 0.057% of the total Cotswold Waterpark SSSI extent, which is 1,919Ha. Loss of Functionally Linked Land (FLL).
- Breaching of a boundary hedgerow to facilitate access (approx. 5m gap only, not informed of any further visibility splay clearance).
- Indirect noise, vibration, lighting, and visual disturbance i.e., from workers, machinery etc, for the duration of the construction phase.
- Dust, engine emissions and particulate matter from construction vehicles/ activities.
- Hydrological pollution and runoff.

1.2.3 During the operational phase the following potential impacts have been identified:

- Continued habitat degradation through use by new activities & improper management.
- Increased recreational pressure. The site is currently used for recreational activities by the owner and events organisers, including fishing, shooting, and camping, whilst also being used weekly throughout the summer months to host triathlon events, and sporadically through the winter. This includes running and cycling throughout the

terrestrial habitat of the site, whilst swimming and safety boats also directly disturb the lake habitat. See LPS Events website for further details. The developed site will include 38 holiday units, with proposed unit types shown to be of 2-bed style, leading to an assumed maximum capacity of 152 people (assuming 4 people per unit). The site will be open year round, though will likely be less busy during the winter period. As the site is currently used regularly for sporting events over the summer months, the assumed busy period is consistent with the current months subject to highest disturbance. It is our understanding that this development will likely result in the stopping of sporting events and as such may lead to lower levels of disturbance to the open water habitats.

- Increased noise, vibration, lighting, and visual disturbance from visitors, vehicles etc.
- Hydrological pollution and runoff (i.e. septic tank and effluent discharge).

1.2.4 It is our understanding that there will be no use of any additional land for site compounds, laydown areas, storage of materials etc, but potentially the need for removal of overhanging branches/ vegetation to allow construction vehicle access. Refer to Appendix A for Proposed Site Layout.

1.3 Aims and Objectives

1.3.1 The purpose of this report is to provide biodiversity information which succinctly identifies ecological features on site and within the corresponding zone of influence, identifies potential impacts resulting from the proposed application, associated effect to identified ecological features, recommends proportionate avoidance/mitigation/compensation strategies, and outlines suitable enhancements that will be implemented in accordance with the British Standard for Biodiversity BS42020:2013 (BSI, 2013).

1.3.2 This information will support the planning application and assist the Local Planning Authority in making an informed decision on whether the application can demonstrate maintenance of favourable conservation status of protected species and no likely significant effect to designated sites accordance with National Planning Policy Frameworks (NPPF) and Local Planning Policy.

1.3.3 This report has been produced with reference to current Guidelines for Ecological Impact Assessment in the UK and Ireland, Terrestrial, Freshwater, Coastal and Marine (CIEEM, 2024), Guidelines for Ecological Report Writing (CIEEM, 2017), and is in accordance with Biodiversity – Code of practice for planning and development BS42020:2013 (BSI, 2013).

1.4 Background/Acknowledgments

1.4.1 Application PL/2022/04776 on Land South of Spine Road East, Ashton Keynes, has documents relevant to ecology including a Preliminary Ecological Appraisal (Cotswold Wildlife Surveys, 2021a), Great Crested Newt Survey Report (Cotswold Wildlife Surveys, 2021b), Bat Activity Survey Report (Cotswold Wildlife Surveys, 2021c), and Reptile Survey Report (Cotswold Wildlife Surveys, 2021d). These reports have been reviewed and considered where necessary in this report.

1.4.2 Previous ecological surveys and reports have been completed for this site, including a Preliminary Ecological Appraisal for the proposed addition of two static caravans to be used as residential dwellings (ArbTech, 2021), and an Ecological Impact Assessment for provision of two converted shipping container units for accommodation (Windrush Ecology, 2022).

1.4.3 Previous consultation with Natural England (NE) has also been sought in relation to this site. This includes the following:

- NE Response 359056 for PL/2021/04577 for the installation of a security fence. This response requested submission of a Preliminary Ecological Appraisal, a Construction Environment Management Plan, and an explanation for the need of the palisade fencing, as the application could have significant impacts on the Cotswold Water Park SSSI. The Preliminary Ecological Appraisal has not been found to be publicly accessible on the planning portal.
- NE Response 363807 for PL/2021/06229 for the provision of two converted shipping containers for tourist accommodation. This response stated that this application was considered to damage or destroy the interest features for which the Cotswold Water Park SSSI has been notified. This is due to the expected increase in disturbance on the SSSI and its designated features, and that the septic tank will result in increased effluent in the water environment.
- NE Response dated 22/12/2023 from Gillian Driver that advises that this proposal would significantly change the nature of the site and that the change will permanently impact notified features of the SSSI. This response also indicated that if consulted on this application during the planning stage, Natural England would likely object due to significant impacts which cannot be mitigated for.
- NE Response dated 12/11/2025 from Richard Gibson was received in response to an EIA screening opinion for this application. This advised that the proposed development has potential likely significant effects on statutorily designated nature conservation sites or landscapes and further consideration is required.

1.4.4 Wiltshire Council had advised that it is their opinion that an Environmental Impact Assessment (EIA) is not necessary to support this application due to the nature and scale of the proposals in relation to the Town and Country Planning (Environmental Impact Assessment) Regulations 2017. As such, the application has no requirement to be supported by an Environmental Statement. The response from the county ecologist, however, did reference the potential impacts on the environment, ecology, and designated sites. This Ecological Impact Assessment (EcIA) will attempt to address and mitigate these concerns.

1.4.5 These documents and previous consultation responses have been reviewed, and findings used in this report where necessary.

1.5 Local Planning Policy

1.5.1 The following policies of the Wiltshire Core Strategy (WCS) which incorporates saved policies from the former District Local Plans are applicable to biodiversity and nature conservation (refer to the Local Plan for full details):

- Core Policy 50 Biodiversity & Geodiversity (demonstrate no net loss of biodiversity & deliver net gain).
- Core Policy 52 Green Infrastructure.

1.5.2 A new Local Plan is in the review stage, with draft recommendations to include the requirement for 20% Biodiversity Net Gain. This has not yet been adopted, and the requirement currently still stands at 10% gain.

- 1.5.3 There are no apparent Supplementary Planning Documents (SPD) applicable to biodiversity on the Wiltshire Council planning website.
- 1.5.4 The Wiltshire Local Nature Recovery Strategy (LNRS) has been adopted, which has been reviewed in relation to this application.
- 1.5.5 Refer to Appendix G for relevant details of European and National Legislation, and National Planning Policy.

1.6 Site Context

- 1.6.1 The approximately 12.8 ha site comprises predominantly the lake, surrounded by areas of woodland, grassland and hedgerows along the boundaries of the site. To the east lies Ashton Road, and to the south Spine Road W. Further to the east is a large Aggregate Industries facility, and the surrounding area is characterised by extensive agricultural land and the other lakes within the Cotswold Water Park.
- 1.6.2 The site lies within the Upper Thames Clay Vales National Character Area (Natural England, 2019) which “is a broad belt of open, gently undulating lowland farmland on predominantly Jurassic and Cretaceous clays. There are contrasting landscapes, including enclosed pastures of the claylands with wet valleys, mixed farming, hedges, hedge trees and field trees and more settled, open, arable lands. Mature field oaks give a parkland feel in many places”

Figure 1 – Survey Area



Image courtesy of Google Earth Pro 7.3.4.8642. Imagery date 22.04.2021.

2.0 Methodology

2.1 Desk Study

2.1.1 Desk study details were obtained from the following sources on the associated dates to provide background on ecological features in the vicinity of the site. In each case the search included the site and the specified area beyond the site boundary based on the expected zone of influence. Candidate and potential designations are considered too as these are also legally protected. Records obtained included:

- Statutory sites designated or classified under international conventions or European legislation within a 10km radius, statutory sites designated under national legislation (including Marine), Natural England GCN Pond Surveys for District Level Licensing data (and GCN Risk Zones), and existing EPS Licence applications within a 2km radius, and Priority Habitat & Ancient Woodland Inventory within a 0.5km radius 27th February 2026 (DEFRA, 2026);
- Tree Preservation Orders (TPOs) within the immediate zone of influence 27th February 2026 (Wiltshire Council, 2026)
- Waterbodies within a 0.5km radius (Online mapping sources including: Google Maps; MAGIC; and Ordnance Survey Street View, 27th February 2026); and
- Locally designated wildlife sites & any notified Local Biodiversity Action Plan (BAP) Habitats detailed in Council Local Plan, Legally protected species, any Priority species (which includes: National Biodiversity Species, Local BAP Species, Species of conservation concern and Red Data Book (RDB) species, Birds of Conservation Concern (BOCC), nationally rare and nationally scarce species, and OSPAR Commission list of threatened/declining species) and Invasive species (listed under section 14 of Schedule 9 only) within a 2km radius, and any important hedgerows/veteran trees within the immediate zone of influence 15th April 2024 and 26th April 2024, Gloucestershire Centre for Environmental Records (GCER) and Wiltshire & Swindon Biological Records Centre (WSBRC). This data was ordered to support the Preliminary Ecological Appraisal and no further request for data has been sought to support the EcIA. This data is likely to still be valid and unlikely to show significant differences in data if a new request was placed.

2.1.2 Data received has been extracted and summarised using QGIS 2.18, with original sources not extracted directly. Data has also been edited where relevant to prevent sensitive or confidential records being made public in accordance with Guidelines for Accessing, Using and Sharing Biodiversity Data (CIEEM, 2020).

2.2 Field Survey

2.2.1 Field Surveys were undertaken on the following dates by the identified staff, all of whom satisfy necessary field survey competencies as stipulated by the Chartered Institute for Ecology and Environmental Management (CIEEM). Weather conditions on the day of survey have been included, and no licensable surveys were undertaken.

Table 1 – Survey Dates and Conditions

Survey	Date	Staff/Licence	Environmental Conditions
UK Habitat Condition (including Condition	30.04.24	Tom Price MSc, BSc (Hons), Qualifying CIEEM	50% cloud, dry, light wind, 15°C.

Survey	Date	Staff/Licence	Environmental Conditions
Assessment) & Preliminary Ecological Appraisal		Membership – Consultant Ecologist	
Bat Activity Survey (Summer)	29.08.24	Ben Goodger – Experienced Field Ecologist (BCT Level 2 - Capable)	0% cloud, dry, light wind, 15°C. Start time 20:00 End time 22:00 Sunset time 20:00
Bat Activity Survey (Autumn)	17.09.24	Ben Goodger – Experienced Field Ecologist (BCT Level 2 - Capable)	0% cloud, dry, light wind, 15°C. Start time 19:16 End time 21:16 Sunset time 19:16
Bat Activity Survey (Spring)	29.05.25	Tom Price MSc, BSc (Hons), Qualifying CIEEM Membership – Senior Ecologist (BCT Level 2 - Capable)	70% cloud, dry, light wind, 17°C. Start time 21:13 End time 23:13 Sunset time 21:13
Otter Survey	08.07.24	Tom Price MSc, BSc (Hons), Qualifying CIEEM Membership – Senior Ecologist	75% cloud, dry, light wind, 18°C.
Breeding Bird Survey 1	14.06.24	Gavin Maclean – Experienced Field Ecologist	12.5% cloud, dry, light wind, 16°C.
Breeding Bird Survey 2	08.07.24	Gavin Maclean – Experienced Field Ecologist	87.5% cloud, drizzle, light wind, 17°C.
Breeding Bird Survey 3	18.07.24	Gavin Maclean – Experienced Field Ecologist	0% cloud, dry, light wind, 17°C.
Breeding Bird Survey 4	15.04.25	Gavin Maclean – Experienced Field Ecologist	62.5% cloud, dry, light wind, 11°C.
Breeding Bird Survey 5	08.05.25	Gavin Maclean – Experienced Field Ecologist	12.5% cloud, dry, light wind, 11°C.
Breeding Bird Survey 6	18.05.25	Gavin Maclean – Experienced Field Ecologist	87.5% cloud, dry, light wind, 11°C.
Wintering Bird Survey 1	18.10.24	Gavin Maclean – Experienced Field Ecologist	12.5% cloud, dry, low wind, temp 12 °C.
Wintering Bird Survey 2	31.10.24	Gavin Maclean – Experienced Field Ecologist	75% cloud, dry, low wind, temp 7 °C.
Wintering Bird Survey 3	11.11.24	Gavin Maclean – Experienced Field Ecologist	37.5% cloud, dry, low wind, temp 10 °C.
Wintering Bird Survey 4	17.11.24	Gavin Maclean – Experienced Field Ecologist	75% cloud, dry, low wind, temp 7 °C.
Wintering Bird Survey 5	17.12.24	Gavin Maclean – Experienced Field Ecologist	75% cloud, drizzle, low wind, temp 8 °C.
Wintering Bird Survey 6	31.12.24	Gavin Maclean – Experienced Field Ecologist	87.5% cloud, drizzle, low wind, temp 7 °C.
Wintering Bird Survey 7	08.01.25	Gavin Maclean – Experienced Field Ecologist	100% cloud, drizzle, low wind, temp 0 °C.
Wintering Bird Survey 8	30.01.25	Gavin Maclean – Experienced Field Ecologist	0% cloud, dry, low wind, temp 4 °C.
Wintering Bird Survey 9	18.02.25	Gavin Maclean – Experienced Field Ecologist	37.5% cloud, dry, low wind, temp 2 °C.
Wintering Bird Survey 10	27.02.25	Gavin Maclean – Experienced Field Ecologist	0% cloud, dry, low wind, temp 6 °C.
Wintering Bird Survey 11	11.03.25	Gavin Maclean – Experienced Field Ecologist	100% cloud, drizzle, low wind, temp 6 °C.
Wintering Bird Survey 12	25.03.25	Gavin Maclean – Experienced Field Ecologist	87.5% cloud, drizzle, low wind, temp 6 °C.

Survey	Date	Staff/Licence	Environmental Conditions
Crayfish Survey	10.09.25	Tom Price MSc, BSc (Hons), Qualifying CIEEM Membership – Senior Ecologist	75% cloud, drizzle, light wind, 15°C.
Reptile Refugia set out	15.04.25	Tom Price MSc, BSc (Hons), Qualifying CIEEM Membership – Senior Ecologist	20% cloud, dry, light wind, temp 15 °C
Reptile Survey 1	08.05.25	Tom Price MSc, BSc (Hons), Qualifying CIEEM Membership – Senior Ecologist	60% cloud, dry, no wind, temp 11°C.
Reptile Survey 2	21.05.25	Tom Price MSc, BSc (Hons), Qualifying CIEEM Membership – Senior Ecologist	80% cloud, dry, no wind, temp 13°C.
Reptile Survey 3	27.05.25	Mark Claridge , BSc (Hons), Qualifying CIEEM Membership - Field Ecologist	90% cloud, rain, light wind, temp 14 °C.
Reptile Survey 4	29.05.25	Tom Price MSc, BSc (Hons), Qualifying CIEEM Membership – Senior Ecologist	70% cloud, dry, no wind, temp 17 °C.
Reptile Survey 5	11.06.25	Tom Price MSc, BSc (Hons), Qualifying CIEEM Membership – Senior Ecologist	10% cloud, dry, light wind, temp 20 °C.
Reptile Survey 6	02.07.25	Tom Price MSc, BSc (Hons), Qualifying CIEEM Membership – Senior Ecologist	80% cloud, dry, light wind, temp 17 °C.
Reptile Survey 7	04.07.25	Mark Claridge , BSc (Hons), Qualifying CIEEM Membership - Field Ecologist	40% cloud, dry, light wind, temp 9 °C.
Reptile Survey 8	10.07.25	Tom Price MSc, BSc (Hons), Qualifying CIEEM Membership – Senior Ecologist	30% cloud, dry, no wind, temp 15 °C.
Reptile Survey 9	02.08.25	Tom Price MSc, BSc (Hons), Qualifying CIEEM Membership – Senior Ecologist	50% cloud, dry, no wind, temp 12 °C.
Reptile Survey 10	05.09.25	Mark Claridge , BSc (Hons), Qualifying CIEEM Membership - Field Ecologist	50% cloud, dry, no wind, temp 15 °C.
Reptile Survey 11	10.09.25	Mark Claridge , BSc (Hons), Qualifying CIEEM Membership - Field Ecologist	90% cloud, dry, light wind, temp 15 °C.
Reptile Survey 12	19.09.25	Mark Claridge , BSc (Hons), Qualifying CIEEM	90% cloud, dry, light wind, temp 18 °C.

Survey	Date	Staff/Licence	Environmental Conditions
		Membership - Field Ecologist	
Reptile Survey 13	22.09.25	Mark Claridge , BSc (Hons), Qualifying CIEEM Membership - Field Ecologist	70% cloud, dry, light wind, temp 11 °C.
Reptile Survey 14	23.09.25	Tom Price MSc, BSc (Hons), Qualifying CIEEM Membership – Senior Ecologist	40% cloud, dry, no wind, temp 13 °C.
Reptile Survey 15	09.10.25	Tom Price MSc, BSc (Hons), Qualifying CIEEM Membership – Senior Ecologist	90% cloud, dry, no wind, temp 14 °C.
Bat Ground Level Tree Assessment	10.03.26	Tom Price MSc, BSc (Hons), Qualifying CIEEM Membership – Senior Ecologist	60% cloud, dry, light wind, temp 8 °C.
Bat Ground Level Tree Assessment	25.03.26	Tom Price MSc, BSc (Hons), Qualifying CIEEM Membership – Senior Ecologist	50% cloud, dry, light wind, temp 6 °C.

UK Habitat & Preliminary Ecological Appraisal

2.2.2 In accordance with Guidelines for Preliminary Ecological Appraisal 2nd Edition (CIEEM, 2017) the Preliminary Ecological Appraisal (PEA) survey included the following.

Mapping of Habitat Types

2.2.3 This assessment has utilised the UK Habitat Classification (UKHab) methodology (UKHab, 2023) as the recommended published method of habitat classification. It has been used to categorise and map the primary habitat types present within the survey area using a standard set of habitat categories, with associated secondary codes/features identified where applicable. Details of current management and habitat condition have also been recorded where appropriate.

2.2.4 Each of the main habitats has been described; including details of component plant species abundances (recorded using the DAFOR scale: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare). Additionally, any stands of non-native invasive plant species were recorded. Habitat extents have been visually mapped onto a topographic plan, with approximate location/areas recorded only (a GPS unit has not been utilised to accurately recorded these).

Assessment of possible presence/likely importance for Protected & Priority Species

2.2.5 An assessment of the possible presence of protected or priority species, and the likely importance of habitat features present for such species has also been undertaken, particularly where uncommon or specialised habitats are present in accordance with current PEA guidelines (CIEEM, 2017). However, no specific protected species survey has been undertaken unless listed under additional surveys as below. Any incidental sightings of protected or priority species, or field signs of such species has also been recorded. Species assessed include: Plants & Fungi; Terrestrial/aquatic invertebrates; Fish; Amphibians; Reptiles; Breeding, wintering and

migratory birds; Bats (including potential roost sites, foraging and commuting habitats/features), Badger, and Other mammal species.

Bat Activity

- 2.2.6 Activity transect surveys were undertaken each season (spring-autumn) in accordance with guidance (Collins, J, 2023). These were undertaken in appropriate weather conditions for bats. The dusk transect surveys commenced at sunset and lasted until approximately 2 hours after sunset. A single transect route was deemed sufficient to cover the site taking account of landscape constraints, topography, location of nearest habitats more likely to be utilised by bats, and the distance a surveyor can walk in a single evening (maximum of 3-5km). This sampled the full range of habitats present on site. The transect route comprised 12 spot counts (labelled 1-12) of at least 5-minute duration, with the transect route in-between divided into sectors (labelled as in between spots i.e., 1-2 etc) and was walked in the order of 1-12, for the Spring and Summer Transects and in reverse for the Autumn to ensure later emerging bats were not missed at the earlier spots. As proposed plans indicate impacts are most likely along the banks of the lake, this is where static detectors were placed to assess use by bats. It was not deemed that there was any requirement to collect data from on the open water, as this habitat will remain untouched.
- 2.2.7 During the surveys, the surveyors recorded the time, location, species, and behaviour (i.e. foraging, commuting or swarming) of each bat pass (a single bat pass or a 10sec period of activity recorded as 1). Additional factors, such as, the number of bats, flight height, bat appearance and relative speed, were recorded where observed. The surveyors were equipped either with an Elekon Batlogger M2 (built in recorder) Full spectrum detectors for all surveys.
- 2.2.8 Additionally, in accordance with current guidance for high suitability habitat (Collins, 2023), two Song Meter Mini Bat 2 AA Ultrasonic Recorders (Wildlife Acoustics Inc., Concord, MA) automated bat detector units were deployed each month May to October (April missed). The unit was placed at a suitable location, approximately 1.5-2m from ground level, away from solid objects which may obstruct sound and any source of extraneous noise. This was programmed to record for at least 5 consecutive nights, with the detector automatically switching on 30 minutes prior to sunset and switching off 30 minutes after sunrise (pre-programmed sunset/sunrise times based on location of detector).

Bat GLTA

- 2.2.9 With reference to current survey guidelines BS8596:2015 (BSI, 2015) and Bat Surveys for Professional Ecologists (4th Edition) (Collins, J, 2023), a preliminary ground-level survey for roosts of individual trees and groups of trees within and immediately adjacent to the site, was undertaken. Each tree as identified in the Arboricultural report was visually inspected from the ground (with the aid of binoculars and a high-powered torch) to identify Potential Roosting Features (PRFs), including checks for the presence of the following features that bats might be able to use:
- Natural holes (e.g. knot holes) arising from naturally shed branches, or branches previously pruned back to the branch collar;
 - Man-made holes (e.g. cavities that have developed from flush cuts) or cavities created by branches tearing out from parent stems;
 - Woodpecker holes;
 - Cracks/splits in stems or branches (both vertical and horizontal);

- Partially detached or loose, platy bark;
- Cankers (caused by localised bark death) in which cavities have developed;
- Other hollows or cavities, including butt rots;
- Compression forks with included bark, forming potential cavities;
- Crossing stems or branches with suitable space between for roosting;
- Ivy stems with diameters in excess of 50mm with suitable roosting space behind (or where a roosting space can be seen where a mat of thinner stems has left a gap between the mat and the trunk);
- Bird and Bat boxes on trees; or
- Other features that offer a place of shelter.

Otter

2.2.10A detailed search for signs of Otter activity was undertaken in accordance with current guidance (Chanin P, 2003). This involved a search for: spraints (droppings) on upstanding rocks at the lake edges; feeding signs (i.e. part-eaten remains of fish, amphibians and crayfish); slides on the bank; paw prints in mud; and breeding sites (holts), resting places (lay-ups in tree cavities, banks or under overhangs), or couches (i.e. flattened earth or areas concealed by surrounding vegetation), around the whole lake perimeter.

Breeding Birds

2.2.11The survey methodology employed was the Bird Survey Guidelines for assessing ecological impacts (Bird Survey & Assessment Steering Group, 2023), with modifications made based on the territory mapping system used for the British Trust for Ornithology (BTO) Common Bird Census (Marchant et al. 1983 & 1990), to ensure all habitats within the site were surveyed.

2.2.12A total of six survey repetitions were undertaken during the bird nesting season. During each of the survey visits, a transect was walked through the site in combination with vantage points/survey stations. Any notable birds observed or heard during the survey were recorded and the location mapped, in addition to a record of behaviour, age and/or sex as appropriate, using the standard BTO species codes and symbols for bird activity. Care was taken at all times to ensure no birds were double counted.

2.2.13Surveys were undertaken between half an hour before sunrise and mid-morning when bird activity is at its highest, with one survey undertaken in the evening to beyond sunset to record species which may be more active at this time of day.

2.2.14In addition, all significant events of disturbance were recorded, including members of the public walking dogs, activities etc. which disturbed birds in the survey area.

Wintering Birds

2.2.15In accordance with the widely accepted survey guidance documents, Assessing the effects of onshore wind farms on birds (Natural England, 2010), Recommended bird survey methods to inform impact assessment of onshore wind farms (SNH, 2017), the Wintering Bird Survey included the following:

- 2.2.16 The survey area covered the entire proposed development site and extended up to 500m radius (where visibility and identification of species from the vantage points allowed). A single vantage point was identified on a pre-survey visit and remained the same on each survey repetition. This vantage point was located so as to give a view of the entire site and lake. The enclosed nature of site, with woodland and trees surrounding, meant that offsite habitats were not able to be viewed. The viewpoint was chosen to maximise visual coverage of the survey area, and to enable a thorough understanding of habitat usage and behaviours of birds, whilst providing minimal visual disturbance.
- 2.2.17 In accordance with standard survey guidance (Natural England, 2010) the survey period extends from October to February with two visits per month.
- 2.2.18 Each survey repetition comprised a total of three hours of observation conducted at the chosen vantage point. The lake was not subject to any tidal conditions. The equipment used on each survey were binoculars (Zeiss 10x42 T*FL) and a spotting scope (Kowa TSN884 20-60x wide zoom).
- 2.2.19 All bird species were recorded, with details noted on their location, number, flight direction and behaviours, where appropriate. Birds were recorded following the standard recording methodology and codes of the BTO Common Birds Census (Marchant, 1983).
- 2.2.20 In addition, all significant events of disturbance were recorded, including members of the public walking dogs, activities etc. which disturbed birds in the survey area.

White-clawed Crayfish eDNA Survey

- 2.2.21 Survey methodology followed that outlined by SureScreen Scientifics (SureScreen Scientifics, 2026) and consisted of collecting 20 sub-samples from the waterbody which were then mixed in a Whirl-Pak bag.
- 2.2.22 A 50ml sample was then taken from the Whirl-Pak bag and pushed through a filter using a syringe. The filter was then sent off for analysis.

Reptile Survey

- 2.2.23 Artificial refugia material was set out throughout suitable reptile habitats within the proposed development site. Current survey guidelines recommend a refuge density of between five and ten refuges per hectare of suitable reptile habitat (Froglife, 1999), however the more refugia used the greater the chance of detection. Approximately 4.51Ha of the site represents suitable habitat (terrestrial areas) for a range of common reptiles (the rest being open water). A total of 50 refugia (roofing felts and corrugated bitumen 50x50cm in size) was considered to provide suitable trap density. A proportion of corrugated were used to aid in the detection of Adder & Grass Snake. The refugia were left to bed down for a week prior to first check. During this time, favourable conditions develop at the traps (e.g. suitable humidity and temperature gradient), vegetation beneath dies back, and reptiles have time to discover and become more familiar with them.
- 2.2.24 The refugia were checked 15 times to determine presence/absence & distribution of reptile species, as well as determine population size where present in accordance with Reptile Survey: An introduction to planning, conducting and interpreting surveys for snake and lizard conservation (Froglife, 1999). All visits were undertaken during the appropriate season i.e. mid-April to October, at an appropriate time of day, and in suitable weather conditions.

2.2.25 In addition to checking the refugia for reptiles, direct observation of any reptiles within the site not using the utilising traps was also undertaken. This complementary method was undertaken by the surveyor slowly walking, treading as quietly as possible, between traps and observing areas suitable for reptiles. Particular attention was paid to potential basking spots (e.g. open, sunny habitats close to cover) and to listen for rustling of vegetation. Where a suspected reptile was heard but not seen (or only a fleeting glimpse gained) the area was returned to around 10 minutes later to search for any reptile moving back out into a basking spot.

2.2.26 The surveyor recorded the location, number, species, and sex of each reptile species encountered. Any other notable wildlife encountered were also recorded. Where reptiles were detected through direct observation (i.e. not at a numbered refugia) these were allocated to the nearest refugia number. Findings and results of the surveys are provided in the Baseline Ecological Conditions section below.

2.3 Assessment

Bat Activity

2.3.1 It is noted that updated Bat Mitigation Guidelines were published in August 2025 (Reason, P.F, and Wray, S., 2025), however, due to the time these surveys were completed and data was analysed and assessed, the previous guidance was adhered to and the updated guidelines were not applicable at the time.

2.3.2 The audio recordings from the Manual detectors and Static Units were later analysed using Kaleidoscope Pro 4.0.4 UK Analysis Software for Ultrasonic Data. This programme uses UK bat classifiers and auto-ID to determine species of bats recorded. However, in every instance this data was fully reviewed by a bat licensed ecologist (Derek Allan MSc, BSc (Hons) MCIEEM, NE Class 2 Licence Number: 2015-14659-CLS-CLS) to confirm its accuracy, specifically where rarer bat species are recorded, where unidentified files are present, where multiple species are present on a single file, or where the auto-ID match ratio is statistically <0.5 confidence (files of Pipistrelle spp. were not assessed further).

2.3.3 Bat Activity Index (BAI – bat passes per hour) were calculated for each bat species recorded within each spot count/sector/static location and for the site overall. For each spot count/sector/static location, the BAI was calculated by dividing the number of individual species passes recorded at these locations by the total duration data was collected at each location, to give the mean number of passes per hour. For the site overall, the BAI was calculated by dividing the number of individual species passes recorded during the manual and automated surveys by the total duration of each survey, to give the mean number of passes per hour.

2.3.4 The highest BAI (either from the Manual or Static survey) is then combined with values for: national rarity, site/nearby roost potential, and habitat characteristics, to give a total score in accordance with current guidance (Wray et al, 2010). The total score is then given a value which is assigned a geographic frame of reference. Vagrant bats (those species which are not resident and only recorded as occasional visitors) are simply assessed as vagrants.

Table 2 - Calculation of Foraging/Commuting Habitat Score (shown in brackets)

BAI*	National Rarity	Site/Nearby Roost Potential	Habitat Characteristics
Low BAI >0 but <6 (5)	Common (2)	None (1)	Industrial or other site without established vegetation. Absence of linear features (1)
-	-	Small number (3)	Suburban areas or intensive arable land. Un-vegetated fences and large field sizes (2)

BAI*	National Rarity	Site/Nearby Roost Potential	Habitat Characteristics
Moderate BAI >=6 but <60 (10)	Rarer (5)	Moderate number/not known (4)	Isolated woodland patches, less intensive arable (moderate field sizes) and/or small towns and villages (3)
-	-	Large number of roosts, or close to a SSSI for the species (5)	Large or connected woodland blocks, mixed agriculture (small field sizes with well grown, well connected hedgerows) and small villages/hamlets (4)
High BAI >=60 (20)	Rarest (20)	Close to or within a SAC for the species (20)	Mosaic of pasture (small fields), woodlands and wetland areas with complex network of mature well-established hedgerows (5)

Table 3 - Categorisation of Bats by National Rarity

Rarity within Range	England
Common (population over 100,000)	Common Pipistrelle Bat (<i>Pipistrellus pipistrellus</i>), Soprano Pipistrelle Bat (<i>Pipistrellus pygmaeus</i>), Brown Long-eared Bat (<i>Plecotus auritus</i>)
Rarer (population 10,000-100,000)	Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>), Whiskered Bat (<i>Myotis mystacinus</i>), Brandt's Bat (<i>Myotis brandtii</i>), Daubenton's Bat (<i>Myotis daubentonii</i>), Natterer's Bat (<i>Myotis nattereri</i>), Leisler's Bat (<i>Nyctalus leisleri</i>), Noctule Bat (<i>Nyctalus noctula</i>), Nathusius' Pipistrelle Bat (<i>Pipistrellus mathusii</i>), Serotine Bat (<i>Eptesicus serotinus</i>)
Rarest (population under 10,000)	Greater Horseshoe Bat (<i>Rhinolophus ferrumequinum</i>), Bechstein's Bat (<i>Myotis bechsteinii</i>), Alcahioe Bat (<i>Myotis alcathoe</i>), Barbastelle Bat (<i>Barbastelle barbastellus</i>), Grey Long-eared Bat (<i>Plecotus austriacus</i>)
*Vagrant species and occasional visitors	Greater Mouse-eared Bat (<i>Myotis myotis</i>), Parti-coloured Bat (<i>Vespertilio murinus</i>), Kuhl's Pipistrelle Bat (<i>Pipistrellus kuhlii</i>), Savi's Pipistrelle Bat (<i>Hypsugo savii</i>), Pond Bat (<i>Myotis dasycneme</i>), Notch-eared Bat (<i>Myotis emarginatus</i>), Northern Bat (<i>Eptesicus nilssoni</i>)

Table 4 - Sites/species Valuation System

Geographic Frame of Reference	Score
Within zone of influence	1-10
Local	11-20
County	21-30
Regional	31-40
National	41-50
International	>50

Bat GLTA

2.3.5 Following the preliminary assessment of trees, based on the signs present, each tree was classified as one of the following categories in accordance with current guidance (Collins, 2023):

- None – Either no PRFs in the tree or highly unlikely to be any;
- FAR – Further assessment required to establish if PRFs are present in the tree;
- PRF – A tree with at least one PRF present.

2.3.6 Where PRFs are identified, they are categorised in relation to the suitability for roosting bats based on the following, and to be applied using professional judgement in accordance with current guidance (Collins, 2023):

- PRF-I – PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats;
- PRF-M – PRF is suitable for multiple bats and may therefore be used by a maternity colony.

Otter

2.3.7 An assessment of Otter activity has been made based on the number of Otter signs found using the methods described in current guidance (Chanin P, 2003).

Breeding Birds

2.3.8 Breeding Birds The survey methodology employed was a modified version of the breeding bird survey (BBS) methods (Gilbert et al. 1998), with modifications made based on the territory mapping system used for the British Trust for Ornithology (BTO) Common Bird Census (Marchant et al. 1983 & 1990), to ensure all habitats within the site were surveyed. Six survey repetitions were undertaken during the season. Transects were walked through the application site in combination with vantage points/survey stations. Any birds observed or heard during the survey were recorded and the location mapped, in addition to a record of behaviour, age and/or sex as appropriate, using the standard BTO species codes and symbols for bird activity. Care was taken at all times to ensure no birds were double counted. Surveys were conducted in early morning when bird activity is generally at its highest.

Table 5 - BTO Breeding Evidence Criteria

Breeding Status	Evidence	Code
Confirmed Breeding	Distraction-Display or injury feigning	DD
	Used Nest or eggshells found (occupied or laid within period of survey)	UN
	Recently fledged young (nidicolous species) or downy young (nidifugous species). Careful consideration should be given to the likely provenance of any fledged juvenile capable of significant geographical movement. Evidence of dependency on adults (e.g. feeding) is helpful. Be cautious, even if the record comes from suitable habitat	FL
	Adults entering or leaving nest-site in circumstances indicating Occupied Nest (including high nests or nest holes, the contents of which cannot be seen) or adults seen incubating	ON
	Adult carrying faecal sac or food for young	FF
	Nest containing eggs	NE
	Nest with young seen or heard	NY
Probable Breeding	Pair observed in suitable nesting habitat in breeding season	P
	Permanent territory presumed through observing territorial behaviour (song etc.) on at least two different days a week or more apart at the same place or many individuals on one day	T
	Courtship and display (judged to be in or near potential breeding habitat)	D
	Visiting Probable Nest Site	N
	Agitated behaviour or anxiety calls from adults, suggesting probable presence of nest or young nearby	A
	Brood patch on adult observed examined in the hand, suggesting incubation	I

Breeding Status	Evidence	Code
	Nest building or excavating nest-hole	B
Possible Breeding	Species observed in breeding season in suitable nesting habitat	H
	Singing male present (or breeding calls heard) in breeding season in suitable breeding habitat	S
Non-breeding	Flying-over	F
	Species observed, but suspected to still be on Migration	M
	Species observed, but suspected to be summering non-breeder	U

Wintering Birds

2.3.9 The bird assemblages will be evaluated in accordance with those listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), Birds of Conservation Concern (BOCC), UK BAP Priority Species and peak counts that are potentially of importance i.e. those species which form part of the statutory designation. The BTO define a nationally important site for a species as one with at least 1% of the national population, whilst an internationally important site holds at least 1% of the global population. Individual species thresholds are presented within the Waterbirds in the UK 2018/19 – Annual Report (BTO, 2020).

White-clawed Crayfish

2.3.10 Once the filtration kit was returned to SureScreen Scientifics, it was run for eDNA analysis. This returns positive or negative results for the target species. In this instance, the target species were White-clawed Crayfish, Signal Crayfish, and Narrow-clawed Crayfish.

Reptile

2.3.11 Each survey visit may reveal only a small sample of the reptile population occurring on site, because the proportion of individuals recorded varies according to weather, migration patterns etc. A mechanism known as the Key Reptile Site Register can be used to obtain a basic evaluation of the population size and importance of the site. It has been designed to identify and promote the safeguarding of important reptile sites, with outstanding assemblages being the guiding principle in judging sites. To qualify for the Key Reptile Site Register, the site must meet at least 1 of the following criteria (Froglife, 1999):

- Supports 3 or more reptile species;
- Supports 2 snake species;
- Supports an exceptional population of 1 species;
- Supports an assemblage of species scoring at least 4; and
- Does not satisfy any of the above which is of particular regional importance due to the local rarity.

Table 6 - Key Reptile Site Register Population Scores

Species	Low Population (Score 1)	Good Population (Score 2)	Exceptional Population (Score 3)
Adder (<i>Vipera berus</i>)	<5	5-10	>10
Grass Snake (<i>Natrix helvetica</i>)	<5	5-10	>10
Viviparous Lizard (<i>Zootoca vivipara</i>)	<5	5-20	>20
Slow-Worm (<i>Anguis fragilis</i>)	<5	5-20	>20

Figures in the table refer to maximum number of adults seen by observation and/or under refugia (placed at a density of up to 10 per hectare, by one person in one day).

General

2.3.12A level of importance has been assigned to each ecological feature, where sufficient baseline data is available to do so, in accordance with current guidance (CIEEM, 2024). This is defined within a geographical context as follows: International and European; National; Regional; Metropolitan, /County, vice-county or other local authority-wide area; River Basin District; Estuarine system/Coastal cell; and Local (plus Negligible where no associated value has been identified). For example, importance of designated sites reflects the geographical context of the designation (where designated sites no longer meet designation criteria and those formally 'de-notified' or where an undesignated site meets published selection criteria must also be considered). When considering habitats and species contextual information about distribution and abundance of that habitat/species in the area must be considered (if the habitat/species status is currently in a degraded or unfavourable condition its potential value should be considered).

2.3.13The assessment then considers potential impacts (both positive and negative) generated during the construction and operational phase of the proposed application. Only impacts that are likely to be significant are considered. Impacts that are either unlikely to occur, or if they did occur are unlikely to be significant, are not considered.

2.3.14Cumulative impacts are then considered where the application meets criteria in accordance with national EIA screening guidance (GOV.UK, 2019), and where agreed with the competent authority during scoping. This takes into consideration existing background levels of threat or pressure, looks at critical thresholds, and assess both additive/incremental and associated/connected impacts and effects.

2.3.15Relevant aspects of ecological structure and function are then considered when determining if identified impacts will have a significant effect upon ecological features. Where necessary, this assessment utilises information from other specialists i.e. air quality, hydrology etc, to determine the level of impact. In accordance with current guidance (CIEEM, 2024) these are

described using the following characteristics, where relevant: positive or negative; extent; magnitude; duration; frequency and timing; and reversibility.

- 2.3.16 The mitigation hierarchy is then explored in accordance with BS42020:2013 (BSI, 2013). This seeks as a preference to avoid impacts, then to mitigate unavoidable impacts, and as a last resort, to compensate for unavoidable residual impacts that remain after avoidance and mitigation measures. Justification has been provided by the client/their planner where the mitigation hierarchy cannot be followed, or for example where compensation is a preferred approach where the competent authority has adopted a County wide strategy i.e. District Level Licensing Schemes (GOV.UK, 2019). In this instance current national Biodiversity Offsetting guidance has also been consulted (GOV.UK, 2019). Additional information has also been provided by the client/their planner where the applicant wishes to demonstrate exceptional circumstances or where they wish to pursue alternative strategies. Any residual impacts following mitigation measures etc are then identified.
- 2.3.17 All mitigation measures follow species specific current best practice guidance and the source has been identified accordingly. Deviation from guidance has been explained by the ecologist and is proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed works.
- 2.3.18 It is important that planning decisions are based on up-to-date ecological data, and the specific timeframe over which survey data is considered valid should follow general advice (CIEEM, 2019). Although it should be noted that the presence/absence and status of protected species can change seasonally/annually. The age of data should also be assessed separately when considering the submission of an EPS Licence (i.e. Natural England may require data to be from the current season).
- 2.3.19 Local Environmental Records Centres (LERC) issue a licence for use of provided biodiversity data for 1 year only, after which time this should be renewed to validate an application (and reports updated accordingly to incorporate any new records). Following completion of surveys all relevant biodiversity data will be submitted to the relevant LERC and other groups as appropriate. This data is from April 2024, due to the data being ordered from the LERC following instruction to assist with completion of the PEA report. Following the completion of all surveys and drafting of the report, this is approaching two years old. This is not considered a significant limitation, as it is not considered likely that significant amounts of new data would have become available in this year, or give presence of species previously not recorded.

Limitations

General

- 2.3.20 BS42020:2013 states “any limitations associated with work should be stated, with an explanation of their significance and any attempt made to overcome them. The consequences of any such limitation on the soundness of the main findings and recommendations in the report should be made clear.
- 2.3.21 Data held by consultees may not be exhaustive. The absence of evidence does not indicate evidence of absence. Enzygo cannot take responsibility for the accuracy of external data sources and as such discrepancies and inaccuracies may occur.
- 2.3.22 Natural England do not hold information of Ancient Woodland less than 2ha in size.
- 2.3.23 Records over 10 years old for transient species (as these are likely to have moved during the interim) and species protected from sale only under the W&C Act 1981 and amendments, are

excluded (as these are not relevant to a planning application). Additionally, given the large number of priority species, these have only been included if identified from the desk study and/or habitats recorded on site have been assessed as providing suitable conditions.

2.3.24 The results of the desk study are from April 2024, due to the time of commission for the initial PEA survey. Although these records are now older than 18 months old, this is not deemed to be a significant limitation as it is unlikely that a new data search would provide significantly different results. In any case, further phase 2 surveys at the site have given a wider picture within this time as to the species present in this area.

2.3.25 Sites designated for Landscape or Geological reasons have not been included within this report.

2.3.26 At certain times of year flora species may be in a state of senescence and are not readily identifiable. During April, some species may not yet have flowered, however, April represents a suitable time to identify the majority of flora species required to easily classify the commonly occurring habitat types. Multiple other visits over all periods of the year have confirmed that habitats were correctly classified at the time of survey, and no other species have been identified which have been deemed significant. No significant aquatic flora has been identified on site, either during the UKHab survey or subsequent visits. The timing of the survey is not perceived as a survey limitation.

2.3.27 This document does not contain a comprehensive list of botanical species on site. Only plant species characteristic of each habitat and incidental observations of notable plant species were recorded. In addition, many plant species are only evident at certain times of the year and so some plant species may have gone undetected.

2.3.28 Approximately 20% of the banks at the edge of the lake were inaccessible due to dense vegetation and lack of walkways. This is not seen as a significant limitation, however, as habitats were able to be classified and the lake viewed from other various locations. No significant flora was recorded within the waterbody itself, from accessible locations.

2.3.29 Due to the time taken for final layouts and tree removal plans to be provided, which delayed the full assessment of impacts, and completion of the Ground Level Tree Assessment, some previous survey data now approaches its lifespan. The UKHab survey was undertaken in April 2024, which now approaches 2 years old. This is not considered a significant limitation, however, as site has been revisited on a regular basis for other surveys, which confirms habitats present have not significantly changed.

Birds

2.3.30 Due to the time of commission, a full season of Breeding Bird surveys was not possible in the 2024 season, and only surveys between June and July. As such, to overcome this limitation, a further three survey visits were undertaken between April and May 2025.

Bats

2.3.31 Due to the time of commission bat activity surveys were started in June 2024, and as such Spring dates were missed for both transects and static data collection. To overcome this limitation, surveys were undertaken in the May of 2025 in order to gain Spring data of the use of site by bats through both transect and static methods.

2.3.32 In June 2024, the static bat detector in the Eastern location failed to record any data due to a technical malfunction. Although it is recognised that this does provide a decreased amount of data to compare a spatial difference in site and a temporal change throughout the year, it is not

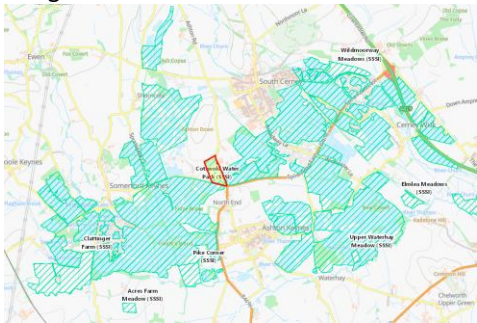
considered a significant limitation due to the data collected in July, and the following May in order to assess the use of site across the Spring and Early summer months.

- 2.3.33 In August, again due to technical malfunctions, both the Eastern and Western detectors failed to record. Due to this persisting issue with the Song Meter Mini Bat 2 AA Ultrasonic Recorders, the manufacturer was contacted to discuss the issue. The response was that issues with electrostatic discharge in these recorders may cause issues with data collection. To overcome the issue in future, these units were replaced. This is not considered to pose a significant limitation to the data collection, however, as clear temporal trends throughout the year can be seen (see Appendix C) and can be extrapolated to predict August trends which appear to be consistent with other summer months and the trend towards the Autumn.
- 2.3.34 It should be noted that Long-eared Bats in particular echolocate more quietly compared to other bat species and so can sometimes be more difficult to detect and may go unrecorded.
- 2.3.35 Auto ID is intended for use in analysing recordings of single bats in free flight, low clutter environments. On average, more than half of such recordings will result in classifications with 80% accuracy. Recordings of roost emergence, multiple bats, captive bats, bats in high-clutter environments or bat social calls are not suitable for Auto ID and results may not be accurate. Kaleidoscope classification software is not intended to replace expert human analysis, and as such results will contain false positives and false negatives. Species from the *Myotis* and *Nyctalus* genera are notoriously difficult to distinguish in the field and from recorded sonograms, as there is considerable overlap in their range of echolocation frequencies, which may also result in false positives. Due to this considerable overlap in call nature, *Myotis* species have been reviewed and classified where possible, with unconfirmed records assumed to be the common and expected species in this area of Daubenton's.
- 2.3.36 Another limitation of the analysis software is that recordings are only assigned to one species, even when two or more species are being recorded in the same instance. In these cases, the recordings have been classified as the rarer of the species (i.e. *Myotis* sp. or *Noctule* over *Common Pipistrelle*). In addition, from the data produced from static detectors, the number of recordings does not necessarily indicate the number of individual bats present. A large number of recordings in a single night may represent one individual bat flying repeatedly past the detector rather than a large number of individuals.
- 2.3.37 Bat Activity Data from August 2024 is also relied upon. This is 20 months old at the time of writing. The CIEEM Age of Data document (CIEEM, 2019) recommends that ecological data between up to 18 months old is likely to remain valid and data between 18 months and 3 years old will need to be assessed by an ecologist to advise on the validity. As above, multiple other site visits have been undertaken in this time and confirm no significant changes to site. This confirms that the data is likely to remain valid and survey updates of these surveys is not deemed necessary in this instance.

3.0 Baseline Ecological Conditions

3.1.1 Ecological features identified by the desk study/field survey are presented below, along with their details and associated ecological value. Refer to Drawings CRM0100005-ENZ-XX-XX-DR-Z-0001 to 0024 for the location/extent of ecological features where relevant.

Table 7 – Ecological Features

Ecological Feature	Details	Ecological Importance
Statutory sites designated or classified under international conventions or European legislation		
North Meadow and Clattinger Farm Special Area of Conservation (SAC), 2.7km southwest	Annex I habitats that are a primary reason for selection of this site Lowland hay meadows North Meadow and Clattinger Farm in the Thames Valley in southern England is one of two sites representing lowland hay meadows near the centre of its UK range. As in the case of the Oxford Meadows, this site represents an exceptional survival of the traditional pattern of management and so exhibits a high degree of conservation of structure and function. This site also contains a very high proportion (>90%) of the surviving UK population of fritillary <i>Fritillaria meleagris</i>, a species highly characteristic of damp lowland meadows in Europe and now rare throughout its range.	European
Statutory sites designated under national legislation (& Impact Risk Zones)		
Cotswold Water Park Site of Special Scientific Interest (SSSI), site sits within this designation. 	The site lies within the Cotswold Water Park SSSI. This is a small parcel of part of a wider network of lakes and surrounding terrestrial habitat. The parcel which covers this site lies at the edge of the designation and is not directly surrounded by other areas of the SSSI, though this extends significantly to the south, east, and west for more than 2km in these directions. A parcel of the SSSI lies approximately 900m to the west of site and extends to the north. See the clipping of the SSSI from Magic maps of the western part of this designation for context. The habitats within the site are typical of the designation though it lacks the open gravel habitats which other lakes appear to. The lake is relatively small compared to others within the designation and does not represent a significant percentage of the entire SSSI. The site is designated for the following nationally important features: - Breeding great crested grebe; little egret and little ringed plover; - a diverse assemblage of breeding birds of lowland open waters, their margins and scrub;	National

Ecological Feature	Details	Ecological Importance
	- non-breeding shoveler; gadwall; pochard; tufted duck; great crested grebe; coot; green sandpiper and lesser black-backed gull; - an assemblage of over 20,000 waterbirds during the non-breeding season, and; - populations of the aquatic plants starry stonewort, lesser bearded stonewort; pointed stonewort and clustered stonewort. No further Wetland Bird Survey (WeBS) data has been reviewed in relation to the application. The citation of the SSSI designation does not provide information on the distribution or specific locations of the records of the species. Therefore it is assumed that the species use the whole extent of site where suitable habitats are present.	
Pike Corner SSSI, 1.6km south of site.	This site consists of two low-lying meadows in the flood plain of the Swill Brook, a small calcareous tributary of the River Thames which is situated only half a mile to the north. The meadows have been grazed for many years without ploughing or any use of artificial fertilisers. They support a very rich flora with several plant species which are rare in Wiltshire and southern England.	National
Impact Risk Zone	LPA should consult Natural England on likely risks from all planning applications.	National
Local Nature Reserves (LNR)		
Cokes Pit Lake Local Nature Reserve (LNR), 1.2km west	Habitats include open water, shingle islands, reed swamp, grassland and hedgerows. Wetland plants and animals including stoneworts, water vole, dragonflies and damselflies, tufted duck, common tern, reed bunting and Daubenton's bat.	National
Other locally designated wildlife sites		
Clayhill Field Local Wildlife Site (LWS), approx. 0.75km from site	An area of wet meadow within the Cotswold Water Park, with areas of rush-pasture.	County
Cotswold Water Park Lakes LWSs, surrounding site within 2km	A number of the Cotswold Water Park Lakes are designated as LWS for lake habitat, surrounding vegetation and breeding birds.	County
England HPI, Local BAP Habitats, Ancient Woodland, Important Hedgerows, Veteran Trees, TPOs and Conservation Areas		
Deciduous Woodland HPI within site boundary	Areas of deciduous woodland HPI within site boundary and surrounding.	National
Open Mosaic Habitat on Previously Developed Land HPI, 370m west	Open Mosaic of Habitats on previously developed land.	National

Ecological Feature	Details	Ecological Importance
Traditional Orchard HPI, closest 280m south	Areas of traditional orchard habitat.	National
Green/Blue & Aquatic Infrastructure, Dark Zones, and Local Policy		
Green Infrastructure	Hedgerows, woodland and scrub areas around the boundaries and through centre of site, provide green infrastructure and wildlife corridor, connecting the surrounding Cotswold Water Park (mainly to the south) and open greenspace to the north.	Local
Blue Infrastructure	Lake on site provides significant blue infrastructure function connecting to wider Cotswold Water Park sites.	Local
Dark Zones	The site is not located within a known dark zone, but likely qualifies as E2: Low district brightness i.e. sparsely inhabited rural area but within settlement zone.	County
Local Nature Recovery Strategy (LNRS)	The Wiltshire Local Nature Recovery Strategy (LNRS) has been adopted, which highlights current areas of importance for biodiversity as well as 'Areas that Could Become' and 'Strategically Significant Habitat Network' (Wiltshire Council, 2026). This site lies within the Area of Particular Importance to Biodiversity (APIB) and adjacent habitats have been marked as within the Strategically Significant Habitat Network for Rivers, Streams and Wetlands with Measures suggested to maintain, enhance, and create these habitats. This LNRS also highlights the importance for bat assemblage at adjacent areas to this site.	County
Habitat Types		
Developed Land, Sealed Surface (u1b) and Built Linear Feature (u1e)	Developed land is present within the site entrance/parking area and the built linear feature in the form of the fence runs around the whole perimeter of site. There is no vegetation associated with these habitats, and they are not England HPI or Local BAP Habitats.	Negligible

Ecological Feature	Details	Ecological Importance
Modified Grassland (g4) 	Modified grassland is present at various locations within the site boundary, in varying conditions. One section of the grassland is dominated by Perennial Rye grass and Annual Meadow Grass, with abundant Creeping Buttercup, Daisy, Yarrow, and Ribwort Plantain, and occasional White Clover. No indicators of any rare, uncommon or species-rich grassland types. Condition of this section is assessed as poor, as there is not 6-8 vascular species present per m² on average, the sward height is not varied as all is heavily mown. Scrub does account for less than 20% of the area, physical damage is more than 5%, cover of bare ground is between 1% and 10%, cover of bracken is less than 20% and there is an absence of non-native plants. A second section of grassland includes the above species but with the addition of Common Vetch, Burdock, Creeping Thistle, Broad-leaved Dock, Mugwort, Common Nettle, Garlic Mustard, Forget-me-not, Spear Thistle, Creeping Cinquefoil, Bristly Oxtongue, Cleavers, Germander Speedwell, and Carpet Bugle. This section is assessed as being of moderate as there are 6-8 species per m² though physical damage is present at more than 5%, and bare ground exceeds 10%. This does not meet the requirement to be Other Neutral Grassland as the above species do not exceed 8 species per m² and cover of Perennial Rye grass is more than 30%. Modified grassland is not an England HPI or Local BAP Habitat.	Negligible
Wet Woodland (w1d) 	An area of woodland surrounds the lake, with the northern most part of this shown to be designated as Deciduous Woodland HPI. The woodland is dominated by Willow species, with frequent Alder, Hawthorn, Field Maple, Elm, Hazel, and Blackthorn. The dominance of Willow and frequent presence of Alder, as well as the site location leading to seasonally wet soils, leads to the classification of Wet Woodland, in line with UKHab definitions. Ground flora included the woodland indicator species of Bluebell, Lords and Ladies, Dogs Mercury, and Herb Robert. The woodland here is in Moderate condition as there are two classes of age distribution of trees, no significant herbivore damage, native species, some open woodland space, one age class of regeneration, trees are of good health, have some recognisable NVC ground flora, 2 storeys of canopy, no veteran trees, limited deadwood, and some disturbance. This habitat represents England HPI and Local BAP Habitat. Wet Woodland is defined as woodland growing on poorly drained or seasonally wet soils, usually with alder, birch, and willow species as the predominant species.	Local

Ecological Feature	Details	Ecological Importance
Other Eutrophic Standing Waters (r1a6) 	Other Eutrophic Standing Waters are the dominant habitat on site as flooded gravel pits are included within this habitat type. No significant vegetational assemblage was recorded at this site. The site has little marginal/emergent vegetation present at the lake edges, where accessible. No evidence of submerged aquatic vegetation seen which is included as a qualifying feature for the SSSI designation. It is possible that the open water habitat had further present of aquatic vegetation, though during surveys there has been no access to the open water. This habitat is a subset of Eutrophic Standing Waters HPI and Local BAP Habitat.	Local
Native Hedgerow (Priority Habitat) (h2a) 	Hedgerows border the site along most boundaries. These are comprised of predominantly Hawthorn and Blackthorn with Frequent Field Maple, Hazel and Elm. Hedgerows here are thought to be in good condition as they are >1.5m in height and width, with few gaps at both the base and the canopy. Ground either side is mainly undisturbed, with a lack of plant species indicative of nutrient enrichment, and are relatively damage free. Hedgerows, for the purpose of HPI classification (and Local BAP), are defined as any boundary line of trees or shrubs over 20 metres long and less than 5 metres wide where any gaps between the trees or shrubs are less than 20 metres wide. These must also be comprised of 80% or more of at least 1 woody UK native species. All hedgerows of this type meet the criteria to qualify as this habitat. Additionally, hedgerows may be classified as 'important' under the hedgerow regulations for ecological and historical reasons.	Local
Legally Protected & Priority Species (& Consultation Zones where applicable)		
Bats	Semi-mature trees around site and along site boundaries may support potential roost features (PRFs). There are no buildings, culverts, bridges or other structures on site suitable for roosting bats, only shipping containers which are not deemed to be suitable for roosting bats due to the lack of ingress points and metal only construction. As trees are proposed to be removed to facilitate development, further Ground Level Tree Assessment (GLTA) has been undertaken to identify any trees with PRFs present and to assess the extent of these and whether they are suitable for individual bats sporadically, or for multiple or maternity colonies of bats. All trees to be removed have been assessed, with results detailed in Appendix B. See the Arboricultural report for further details on trees, species, etc. Results of this GLTA showed that only trees with no features and PRF-I features only are present, in line with current guidance (Collins, 2023), and no PRF-M trees are due to be removed or affected	Local

Ecological Feature	Details	Ecological Importance																																																																																				
	by works. Only trees with PRF-I features have been recorded in the appendix and on the map, all other trees to be removed are designated as NONE in line with guidance, meaning no PRFs are present. As the Arboricultural report does not include individual tree references for all trees to be removed, and many are present within tree groups, letters have been assigned to individual tress within their group reference. For example, trees within group G6 have been named G6A, G6B, G6C etc, in order to classify trees individually. Locations of these trees can be seen within drawing CRM100005-ENZ-XX-XX-DR-Z-0026, though rough locations only are given due to the limitation of the Arb drawing not containing specific tree locations. Suitable habitats such as the hedgerows, lake and woodland provide favourable foraging and commuting habitat (Collins, 2023) for bats. The current best practice guidelines (Collins, 2023) states that <i>High</i> suitability sites are ‘<i>well-connected to the wider landscape, such as river valleys, streams, hedgerows, lines of trees and woodland edge</i>’ and ‘<i>landscape that is likely to be used by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland</i>’, and as such this site is deemed of <i>High</i> suitability. As such, Bat Activity Surveys have been undertaken at site, which recorded the following: <table><tr><th>Species</th><th>BAI</th><th>Rarity</th><th>Roost</th><th>Habitat</th><th>Score</th></tr><tr><td>Noctule</td><td>5 (3.67)</td><td>5</td><td>4</td><td>4</td><td>18</td></tr><tr><td>Leisler’s</td><td>5 (0.07)</td><td>5</td><td>4</td><td>4</td><td>18</td></tr><tr><td>Serotine</td><td>5 (0.01)</td><td>5</td><td>4</td><td>4</td><td>18</td></tr><tr><td>Barbastelle</td><td>5 (0.00)</td><td>20</td><td>4</td><td>4</td><td>33</td></tr><tr><td>Common Pipistrelle</td><td>10 (53.70)</td><td>2</td><td>4</td><td>4</td><td>20</td></tr><tr><td>Soprano Pipistrelle</td><td>20 (123.85)</td><td>2</td><td>4</td><td>4</td><td>30</td></tr><tr><td>Nathusius’s Pipistrelle</td><td>5 (0.52)</td><td>5</td><td>4</td><td>4</td><td>18</td></tr><tr><td>Brown Long-eared</td><td>5 (0.06)</td><td>2</td><td>4</td><td>4</td><td>15</td></tr><tr><td>Daubenton’s</td><td>10 (8.22)</td><td>5</td><td>4</td><td>4</td><td>23</td></tr><tr><td>Brandt’s</td><td>5 (0.03)</td><td>5</td><td>4</td><td>4</td><td>18</td></tr><tr><td>Whiskered</td><td>5 (0.06)</td><td>5</td><td>4</td><td>4</td><td>18</td></tr><tr><td>Natterer’s</td><td>5 (0.03)</td><td>5</td><td>4</td><td>4</td><td>18</td></tr><tr><td>Lesser Horseshoe</td><td>5 (0.02)</td><td>5</td><td>4</td><td>4</td><td>18</td></tr></table>	Species	BAI	Rarity	Roost	Habitat	Score	Noctule	5 (3.67)	5	4	4	18	Leisler’s	5 (0.07)	5	4	4	18	Serotine	5 (0.01)	5	4	4	18	Barbastelle	5 (0.00)	20	4	4	33	Common Pipistrelle	10 (53.70)	2	4	4	20	Soprano Pipistrelle	20 (123.85)	2	4	4	30	Nathusius’s Pipistrelle	5 (0.52)	5	4	4	18	Brown Long-eared	5 (0.06)	2	4	4	15	Daubenton’s	10 (8.22)	5	4	4	23	Brandt’s	5 (0.03)	5	4	4	18	Whiskered	5 (0.06)	5	4	4	18	Natterer’s	5 (0.03)	5	4	4	18	Lesser Horseshoe	5 (0.02)	5	4	4	18	
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Ecological Feature	Details	Ecological Importance
	Assessment of each bat species as follows in accordance with guidance. Habitats = adjacent to woodland blocks and well connected hedgerows etc (4). Nearby Roost Potential = Moderate number/not known (4) for all species (as suitable structures/tree features in wider landscape and all species recorded in south-west, though accuracy of data search results not sensitive enough to plot roost location fully). A summary of spatial and temporal trends are provided, with species specific information taken from the Bat Conservation Trust website/factsheets on bats. Refer to Appendix C for full Bat Activity results. • Noctule Score 18 Local value. Regular passes throughout the year, with some arriving at/soon after sunset indicating roosts in the vicinity (prefer mature trees). No discernible difference between each of the locations, mainly flying high overhead and around trees. Peak of activity during September at both locations, which could indicate the site is used for feeding prior to hibernation, for swarming or socialising, or whilst commuting to hibernation roosts. Rarer in the UK but multiple records throughout the south. Possible misidentification/overlap with Leisler's and Serotine, but AutoID indicates 100% confidence on call registration for a large proportion of recordings. Where percentage confidence is lower, these have been reviewed before confirming as Noctule. • Leisler's Score 18 Local value. Low levels of passes throughout the year, most later in the night, indicating roosts are not in the local area and they are travelling to reach site or commuting through. No discernible difference between each of the locations. Rarer in the UK with less frequent records throughout south. Possible misidentification/overlap with Noctule and Serotine, but AutoID indicates 100% confidence on call registration where identified as this species. Where percentage confidence is lower, these have been reviewed before confirming as Leisler's. • Serotine Score 18 Local value. Sporadic passes throughout the year, records late in the night indicating roosts are not present in the local area, and individuals utilise the site sporadically. No discernible difference between each of the locations. As only sporadic passes throughout the year, no discernible temporal difference, though slight peak in July. Rarer in the UK but records throughout south. Possible misidentification/overlap with Noctule and Leisler's, but AutoID indicates 100% confidence on call registration where identified as this species. Where percentage confidence is lower, these have been reviewed before confirming as Serotine. • Barbastelle Score 33 Regional value. Sporadic passes by individuals throughout the year, with a peak of two passes only in May. The majority of these were later in the evening indicating roosts are not in the immediate vicinity of site (species prefers	

Ecological Feature	Details	Ecological Importance
	darker wooded habitats, roosting in building crevices & cracks in trees). One of the rarest species in the UK, with sparse records throughout the south. All recordings named as Barbastelle by AutoID have been checked and the remaining are confirmed as positive Barbastelle records. • Common Pipistrelle Score 20 Local value. Large number of registrations with records throughout the year. Arrival at/soon after sunset indicating roosts in the vicinity (crevice dwellers utilising gaps in buildings, roof tiles, soffits etc, trees, gaps in bridges etc), peak numbers in spring but consistent high recordings in summer could indicate maternity roost nearby. Higher numbers in the east of site, likely using the woodland and lake boundary for foraging and commuting. Common throughout the UK. Overlap with Soprano Pipistrelle. • Soprano Pipistrelle Score 30 County value. Significantly large number of registrations (most common species), with records throughout the year (consistently high through Spring, Summer and Early Autumn). Arrival at/ soon after sunset indicating roosts in the vicinity (crevice dwellers utilising gaps in buildings, roof tiles, soffits etc, trees, gaps in bridges etc), large numbers through summer could indicate maternity roost nearby. There is a known link between Soprano Pipistrelle roosting locations and the proximity to waterbodies, with the species known to forage around lakes as well as woodland edges, as are present at site. Higher numbers in the east of site, likely using the woodland and lake boundary for foraging and commuting. Common throughout the UK. Overlap with Common Pipistrelle. • Nathusius's Pipistrelle Score 18 Local Value. Low levels of passes throughout the year with peaks in Spring. Arrival at around an hour after sunset and later in the evening suggests roosts are in the wider area and not in the immediate vicinity (crevice dwellers utilising gaps in buildings, roof tiles, soffits etc, trees). Higher numbers in the east of site, likely using the woodland and lake boundary for foraging and commuting. Rarer in the UK but records throughout the south. Overlap with Common Pipistrelle. • Brown Long-eared Score 15 Local value. Low levels of passes only throughout the year, slight peak in Autumn months, later in the evening along darker habitats/mature trees, with no indication of roosts. Prefers darker & wooded environments. Common throughout the UK. • Daubenton's Score 23 County value. Regular passes throughout the year though a peak in September, which could indicate the site is used for feeding prior to hibernation, for swarming or socialising. Arrival around an hour after sunset	

Ecological Feature	Details	Ecological Importance
	indicating roost is not in the local area though they are accessing site from the wider area. Given the extent of suitable habitat surrounding, the roosts could be from multiple locations within the Cotswold Water Park. No significant difference between locations. Prefers open water & riparian habitats, likely foraging over the lake. Highest confidence levels indicated Daubenton's, and due to the location of site and habitats present, ambiguous Myotis registrations were recorded as Daubenton's. • Brandt's Score 18 Local value. Sporadic passes throughout the year, records late in the night indicating roosts are not present in the local area (roost in old buildings with suitable crevices, tiles, soffits etc), and individuals utilise the site sporadically. No discernible difference between each of the locations. As only sporadic passes throughout the year, no discernible temporal difference. Rarer in the UK but records throughout south. As Myotis species are difficult to identify, all AutoID records of this species were checked and only recorded as this species where confidence was high. • Whiskered Score 18 Local value. Sporadic passes throughout the year, records late in the night indicating roosts are not present in the local area (roost in old buildings with suitable crevices, tiles, soffits etc), and individuals utilise the site sporadically. No discernible difference between each of the locations. As only sporadic passes throughout the year, no discernible temporal difference. Rarer in the UK but records throughout south. As Myotis species are difficult to identify, all AutoID records of this species were checked • Natterer's Score 18 Local value. Sporadic passes throughout the year, records late in the night indicating roosts are not present in the local area (roost in old buildings with suitable crevices, tiles, soffits etc), and individuals utilise the site sporadically. No discernible difference between each of the locations. As only sporadic passes throughout the year, no discernible temporal difference. Rarer in the UK but records throughout south. As Myotis species are difficult to identify, all AutoID records of this species were checked • Lesser Horseshoe Score 18 Local value. Sporadic passes throughout the year, records late in the night indicating roosts are not present in the local area (prefers open barns/structures with space for free hanging and large entrances), and individuals utilise the site sporadically. Likely used in passing to reach more suitable foraging habitat such as pasture or traditional field systems.	

Ecological Feature	Details	Ecological Importance
	The site has been assessed as being of County value for bats. Barbastelle has been recorded as being of Regional value, however, this is due to the rarity of this species and is not representative of the levels of activity at site. Only four passes of this species were recorded over the season, and as such this has been downgraded to Local value only. Soprano Pipistrelle has returned a score of County value, as high levels of passes have been detected. Daubenton's have also returned a score of County value. It is assumed that this species is using the open water habitats to forage, and as such it is considered that levels of passes would be even higher if recorded on the open water. Having said this, given that the BAI is on the lower end of the 'moderate' scale, it is not considered that this would likely be higher and push the value any higher than that of County value. The site is typical of the area and surrounding habitats are present which offer extensive suitable habitat for these species. These species are known to favour waterbody habitats, and woodland edge habitats, as are present here. Two EPS Licences previously granted within 2km search radius for both Common and Soprano Pipistrelle bats allowing destruction of breeding and resting places. The data search returned records of Brandt's, Brown Long Eared, Common Pipistrelle, Daubenton's, Leisler's, Lesser Horseshoe, Myotis, Nathusius's, Natterer's, Noctule, Serotine, Western Barbastelle, and Whiskered bats in the wider area.	
Badger	Multiple records of badgers found in search area, though some full grid references withheld for confidentiality purposes. Despite suitable habitat on site large fences are present around whole site which would likely restrict the movement of badgers. No incidental badger evidence was seen on site during the field survey including no snuffle holes, latrines, runs or sett digging. In any case, there is evidence of Badger in the area and suitable habitat on site.	Local
Dormouse	Suitable habitats on site in the form of woodland and hedgerows which offer connectivity across the site and to the surrounding landscape. No historic EPS Licences. No records of Hazel Dormice within 2km, and only one historic record within the region on NBN Atlas. As such it is deemed that the species is likely not present onsite, though as there is suitable habitat present this has been deemed to be of local importance as a precautionary approach.	Local

Ecological Feature	Details	Ecological Importance
Otter & Water Vole	Records of both Otter and Water Vole within 2km search radius. The lake provides suitable foraging habitat for Otter and the woodland and banks of the river provide potential suitable holt locations. The species is known to be present within the Cotswold Water Park. The lake does not provide suitable habitat for water vole due to a lack of vegetation within and surrounding the lake boundaries. Otter surveys were completed at the site and have confirmed the use of the lake by Otter through consistent findings of Otter spraint at the pontoon on the eastern edge of the lake. Spraints included a mix of feeding remains including fish bones and crayfish. Although use is confirmed, it is assumed that this is for foraging, commuting, and territory marking only as no evidence of holts or resting places was detected during the surveys. It is assumed that holts and resting places are present in the wider Cotswold Water Park or associated with the River Thames and tributaries to the South of the Cotswold Water Park.	Local
Other Protected Mammals	No records of other protect mammals within the past 10 years. No specific habitat likely to attract them.	Negligible
Specially Protected Birds	Several specially protected birds have been recorded within the 2km search area, including many wetland, wading and water bird species. Breeding Bird Surveys detected no Schedule 1 bird species. Wintering Bird Surveys detected two Schedule 1 bird species including Fieldfare (<i>Turdus pilaris</i>) and Redwing (<i>Turdus iliacus</i>). The hedgerows and trees onsite provide opportunities for these common wintering farmland species. Refer to Appendix C and appended maps for further details.	Negligible
Breeding Birds	The Cotswold Waterpark SSSI is designated for the presence of breeding Great Crested Grebe (<i>Podiceps cristatus</i>), Little Egret (<i>Egretta garzetta</i>), and Little Ringed Plover (<i>Charadrius dubius</i>), and for having a diverse assemblage of breeding birds. Breeding bird surveys have been undertaken which shows the presence of probable breeding Great Crested Grebe only from the designated species. This showed a single breeding pair present only, which have been observed to utilise the whole lake. No evidence of Little Egret or Little Ringed Plover has been recorded. Although there is suitable habitat for Little Egret in the form of woodland and trees adjacent to the lake which are suitable for nest platform creation, none have been recorded on site. The site does not provide any suitable nesting habitat for Little Ringed Plover which require bare open gravel and shingle or sand, which is not present on site, despite being on a flooded gravel pit. It is also assumed not suitable for use for foraging habitat due to the lack of exposed bare substrate and shallow water. The hedgerows and woodlands offer breeding potential for a range of common bird species, and the lake and boundary habitats offer suitable habitat for wetland birds. Common and	National

Ecological Feature	Details	Ecological Importance
	widespread species only have been identified as probable or confirmed breeders on this site, with only low numbers of individual birds/pairs recorded for all. The Breeding Bird Surveys have recorded a total of 28 species at the site. Of the 28 species recorded, no species were Schedule 1, and 12 species were BoCC Red (2x) and Amber (10x). Of the notable species recorded, 11 species were recorded as possible breeding, including Black-headed Gull (<i>Chroicocephalus ridibundus</i>), Bullfinch (<i>Pyrrhula pyrrhula</i>), Dunnock (<i>Prunella modularis</i>), Greenfinch (<i>Chloris chloris</i>), Linnet (<i>Linaria cannabina</i>), Mallard (<i>Anas platyrhynchos</i>), Song Thrush (<i>Turdus philomelos</i>), Whitethroat (<i>Sylvia communis</i>), Willow Warbler (<i>Phylloscopus trochilus</i>), Woodpigeon (<i>Columba palumbus</i>) and Wren (<i>Troglodytes troglodytes</i>). The remaining 16 species were of non-breeding status, either passing through the site (though not within suitable nesting habitat), or using the site for foraging only. The Breeding Bird Surveys indicate a common assemblage of birds which is typical of the woodland, hedgerow, waterbody, and limited grassland onsite. In relation to ground-nesting species, there was no Skylark (<i>Alauda arvensis</i>) or Lapwing (<i>Vanellus vanellus</i>) observed across any of the six survey dates. This, along with the lack of the open-wide grassland or arable view preferred by these species onsite, indicates these species are likely absent from the site. Breeding territories were identified for Greenfinch (1x), Dunnock (2x) and Wren (3x) within the redline boundary, with possible further territories in the surrounding landscape (note each singing male does not necessarily equate to an established breeding territory). The overall species assemblage at the proposed site is assessed as of being of Local-level importance in accordance with criteria defined by Fuller (1980) (T=17). Refer to Appendix D and appended maps for further details.	
Wintering and Migratory Birds	The SSSI is designated for the presence of non-breeding shoveler (<i>Spatula clypeata</i>), gadwall (<i>Mareca strepera</i>), pochard (<i>Aythya ferina</i>), tufted duck (<i>Aythya fuligula</i>), great crested grebe (<i>Podiceps cristatus</i>), coot (<i>Fulica atra</i>), green sandpiper (<i>Tringa ochropus</i>), and lesser black-backed gull (<i>Larus fuscus</i>), and for an assemblage of over 20,000 waterbirds during the non-breeding season. These species are all known to prefer habitats of open water, with vegetation surrounding, as is present at this lake. Only Green Sandpiper varies in its preferences, requiring shallow water and terrestrial habitat for wading and foraging. The site offers suitable habitat for wintering birds in the form of a large, open waterbody. The SSSI designation covering the site includes the presence of the following wintering species: shoveler, gadwall, pochard, and green sandpiper.	National

Ecological Feature	Details	Ecological Importance
	Wintering Bird Surveys have been undertaken to assess the non-breeding assemblage of birds on site. Of the designated species for the SSSI, only a single Gadwall was recorded during the surveys. Although the site has been identified as having suitable habitat and potential to support the other designated species, none have been identified or observed on site either through specific surveys or incidental observations during other site visits. Although only a single Gadwall has been observed of the designated species, Wintering Bird Surveys have recorded a total of 18 species within the site, flying over the site and within adjacent immediate habitats. This includes 5 UKBAP Priority species, comprising Bullfinch (<i>Pyrrhula pyrrhula</i>), Herring Gull (<i>Larus argentatus</i>), Lapwing, Linnet and Song Thrush. In addition, 4 BoCC Red List species and 14 Amber List species. No wetland or wintering bird species were recorded in notable numbers when compared to the BTO importance thresholds defined by BTO (BTO, 2024) as 1% of national and international populations. A single Gadwall (<i>Mareca strepera</i>) has been recorded within the site. No evidence of Shoveler, Pochard, or Green Sandpiper has been identified during the surveys. It has been noted through incidental observations, that feeding of wild birds takes place at the lake to the south, and as such it is deemed that this potentially attracts wintering species to this lake, and away from this site. Wintering Bird Surveys have confirmed the habitats onsite are not utilised by any significant number of migratory or wintering birds. Though the site sits within the Cotswold Water Park SSSI, it is assessed the site does not provide any notable core or secondary wintering bird habitat. The site itself accounts for only 0.7% of the entire SSSI, and so does not make up a significant portion of the habitat suitable for these species. Within the area there is extensive suitable habitat for waterfowl and wading birds, and results of these surveys show that these species are likely utilising waterbodies in the wider area and elsewhere within the SSSI designation. Refer to Appendix E and appended maps for further details.	
Common Reptiles	Records of grass snake have been identified throughout the search area. The area of woodland and well-connected hedges offer potential habitat for populations of common reptiles, offering a suitable combination of shelter, refuge, foraging and basking potential. As such, full population surveys for reptile were undertaken across the full suitable season in 2025. These surveys returned records of Grass Snake only. A peak count of four adult grass snakes was recorded, with survey visits also returning records of juvenile grass snakes, suggesting breeding on site. This leads to a score of 1 and classification of a <i>Low</i> population of grass snake on site (5 or more for good). As no significant populations or diversity of species were recorded (i.e single snake species only, scoring 1), the site can be regarded as NOT a key reptile site. Refer to Appendix F for full Reptile Survey details.	Local

Ecological Feature	Details	Ecological Importance
Great Crested Newt (GCN)	Great Crested Newt have been reported within the 2km radius search area. A search for ponds shows no suitably sized ponds within an uninterrupted 500m radius, likely to be travelled by this species. The waterbody on site is not considered to be suitable due to the size, known populations of fish and waterfowl, and lack of emergent plants. All surrounding lakes are of similar size with the same features likely to prevent GCN from breeding. The terrestrial habitat is suitable for use by GCN in the terrestrial phase of their life, though the roads to the south and east of site are unlikely to be passed by individuals of this species and thus they are likely absent from site.	Negligible
Other Protected Herpetofauna	No records. No suitable habitat on site.	Negligible
Protected Fish/Marine	Records of Bullhead in area. No suitable habitat on site as this species requires fast flowing water in stony rivers and streams, which is not present within the lake where water is calm and still.	Negligible
White-clawed Crayfish	No records within the search area, though this species has previously been recorded within the Cotswold Water Park. Incidental visits to site have identified crayfish remains within Otter spraints, though the species could not be determined at this time. As such, further crayfish survey was undertaken through eDNA of water samples. This returned a positive result of the invasive Signal Crayfish only, and was negative for White-clawed Crayfish.	Negligible
Protected Invertebrates	No records. Typical habitats only, unlikely to attract these species. No inclusions of invertebrates in the SSSI designation, and as such is not of further consideration.	Negligible
Protected Flora	No records. Typical habitats only, none observed on site.	Negligible
Invasive Flora	Records of invasive species including Himalayan Balsam in search area. No records of aquatic invasive flora in the search area. No invasive flora identified on site. Although open water habitats could not be surveyed in close proximity, the lack of records and of visible floating or emergent vegetation leads to the conclusion of this being absent from site.	Negligible
Invasive Fauna	No records within search area of signal crayfish, though Signal Crayfish presence confirmed through eDNA survey at the site.	Local

Ecological Feature	Details	Ecological Importance
Priority Species	The SSSI is designated for populations of the aquatic plants starry stonewort, lesser bearded stonewort; pointed stonewort and clustered stonewort, all of which are priority flora (none are Schedule 8). Of these species, starry stonewort and pointed stonewort prefer deeper waterbodies, whereas lesser bearded stonewort and clustered stonewort are seen in shallower water. During the UKHab survey and multiple subsequent visits to site, no coverage of aquatic plants has been identified with the lake habitat showing only bare rocky substrate. It is considered likely that if lesser bearded stonewort and clustered stonewort were present on site, they would have been recorded within the shallow marginal waters of the lake, as this is their preferred habitat. The species which prefer deeper water would be more likely to be present in the centre of the lake, which may not have been possible to observe from the banks. Several records of priority invertebrates (i.e., several butterfly and moth spp.), priority flora, priority mammals (i.e., Hedgehog) and common amphibians (i.e. Common Toad) within search area. Woodland, hedgerows, and waterbody provide opportunities for individuals/ small number of other common/ priority species only such as Common Toad & Hedgehog.	Local

4.0 Assessment and Mitigation

- 4.1.1 Assessment of impacts and the associated ecological effect to identified ecological features are presented below. To clarify, ecological features have been screened out where these are of negligible importance, no likely significant impacts have been identified or where impact is unlikely to occur. Mitigation measures can be subject of a condition where appropriate. Specifically, the following has been excluded: Coke's Pit LNR, Clayhill Field LWS, and HPI in the wider area, due to distance from development footprint, no direct or indirect effects to habitat types etc.
- 4.1.2 Enzygo Ltd are not considered to act as a Principal Designer for any mitigation/enhancement strategies identified within this document, in accordance with the Construction (Design and Management) Regulations 2015 (CITB, 2016). It is our understanding that the client has confirmed all site conditions, including geology & hydrology etc as necessary, to ensure the proposals are feasible, and consulted with landscape & building architects etc where relevant.

Table 8 – Assessment of effect and mitigation measures

Ecological Feature	Impact	Avoidance/Mitigation	Compensation	Significance of Residual Effect
North Meadow and Clattinger Farm SAC, Cotswold Water Park SSSI/LWS, Pike Corner SSSI, Impact Risk Zone, Breeding Birds, and Wintering Birds, Priority Flora.	Construction phase clearance of vegetation, degradation of habitat, indirect noise, vibration, lighting, visual disturbance, dust, emissions, and hydrological pollution. Adverse, temporary, reversible impact. Operational phase continued degradation, increased recreational pressure, increased noise, vibration lighting and visual disturbance from visitors, hydrological pollution and runoff.	Site plans show no significant loss of aquatic habitat, as holiday units are only partially over the water. No evidence of the presence of priority flora for which the SSSI is designated has been identified. The species of lesser bearded stonewort and clustered stonewort prefer shallow water and were not observed in the shallow marginal waters of the lake during the surveys. As such it is deemed that they're likely absent from this waterbody. Starry stonewort and pointed stonewort prefer deeper waters and so may have been present in the centre of the waterbody and now able to be observed from the lake banks. In any case, the proposed development does not significantly impact the centre and deeper sections of the lake, and so impacts are not considered significantly likely even in the event of these species presence. As such further detailed aquatic botanical survey has not been deemed necessary. The site plan has been designed specifically to lose as little open water habitat as possible to retain this for potential qualifying plants and for use by qualifying breeding and wintering bird species. Further breeding bird survey has confirmed only Great-crested Grebe as a	None	None

Ecological Feature	Impact	Avoidance/Mitigation	Compensation	Significance of Residual Effect
	Adverse, temporary, reversible impact. Risk of disturbance to nesting and wintering birds during construction activities. Minor adverse, temporary, reversible impact. Risk of impacts to priority flora during construction and operational phases. Adverse, temporary, reversible impact.	probable breeder, with no recordings of Little Egret or Little Ringed Plover. As bird species breeding are deemed to be commonly occurring and widespread species only, initial clearance of suitable nesting habitat should be done in line with best practice, with initial site clearance being conducted outside of the bird nesting season (March to August inclusive), where possible. If it is necessary to undertake these works during the bird nesting season, a suitably trained Ecological Clerk of Works (ECoW) will supervise the clearance to ensure no active nests are affected. If any active nests are detected, an appropriate protection area around the nest(s) will be established until it can be determined that the nest is longer active/young have fledged. Considering the results of the Breeding Bird Surveys and the identification of the common assemblage of species (with no Skylark or Lapwing breeding territories), it is confirmed no specific off-site mitigation/compensation for farmland birds is required. Wintering Bird Surveys have confirmed a common and typical assemblage of wintering birds utilising the site and immediate surrounds, with no notable numbers of any wetland or waterfowl species. The site has been specifically designed in order to retain as much habitat suitable for use by breeding and wintering birds as possible, including retaining the northern portion of the lake, with no construction, and ensuring buildings are on lake banks only so as to retain open water habitat. The site is also assumed to be much quieter with less visitors over the winter months and as such, will be subject to less disturbance over the wintering bird period. The site has existing recreational use of the lake habitat which represents a high level of disturbance currently due to use for triathlon events where there is disturbance to surrounding and open water habitats, through swimming. The site also hosts a number of other social events, and sporting events which lead to significant disturbance. As such it is not deemed that the increase in recreational pressure on the SSSI will significantly impact the qualifying features present.		

Ecological Feature	Impact	Avoidance/Mitigation	Compensation	Significance of Residual Effect
		To further protect the SSSI, as well as surrounding designated sites such as the North Meadow and Clattinger Farm SAC, Pike Corner SSSI, works will be undertaken in accordance with best practice and through adoption of the appropriate Environment Agency guidance (refer to updated 2019 Environment Agency guidance "Pollution prevention for businesses" - GOV.UK (www.gov.uk)). This includes appropriate storage of chemicals, controlled refuelling of vehicles to dedicated areas, spill kits and protecting stockpiles of materials. Any lighting required should be sensitive in nature in line with best practice guidance (Institution of Lighting Professionals, 2023) in order to protect habitats for their use by wildlife. The planning officer should contact Natural England to confirm that the construction will not significantly affect the SSSI (and any offsite designations) as a whole and the designated features deemed to be present.		
Hedgerow HPI, Lowland Mixed Deciduous Woodland HPI, Green Infrastructure, Dormouse	Risk of damage to woodland, loss/damage of Hedgerow HPI which, and risk of habitat degradation through removal, artificial lighting and run-off pollution. Minor adverse, temporary, reversible impact. Low risk of killing/injury to during site clearance activities. Minor adverse, temporary, irreversible impact.	The final layout has been designed to maximise the retention of existing woodland and hedgerow Priority Habitat. This has been done in line with the Mitigation Hierarchy and BS42020:2013, with avoidance being undertaken in the first instance. A suitable landscaping plan is to be incorporated to enhance the site for biodiversity, including strong areas of connection and green infrastructure, and enhancing habitats within the site. Where marked for retention, trees, woodland and hedgerows should be protected throughout the construction phase in accordance with BS5837:2012 Trees in relation to design, demolition and construction, to ensure no damage or habitat degradation. All contractors are to be made aware of the purpose of the fencing, with signage used where necessary, and no works are to occur beyond this established boundary, including no storage of materials or machinery. In addition, to avoid potential degradation of these habitats through excessive artificial lighting overspill, a sensitive lighting scheme shall be implemented making use of suitable products such as directional, low-level, capped, screened and/or low-lux lighting. As above, best practice pollution measures will be in place to minimise the risk of	None	None

Ecological Feature	Impact	Avoidance/Mitigation	Compensation	Significance of Residual Effect
		impact to the adjacent woodland and hedgerows. All works to vegetation will be done under the supervision of an Ecological Clerk of Works (ECOW), who will inspect habitats prior to works to ensure this will not impact any protected species. As there are no local records of dormouse within the area, it is likely that they are absent from site, and as such further survey is not deemed necessary. In any case, as there is potential suitable habitat on site removal of any vegetation undertaken sensitively under supervision of ECOW, as above.		

Ecological Feature	Impact	Avoidance/Mitigation	Compensation	Significance of Residual Effect
Bats	Low risk of killing/injury to bats & loss of roosting features during construction activities. Minor adverse, temporary, irreversible impact. Risk of loss, damage and/or degradation of bat foraging and commuting habitat Minor adverse, temporary, reversible impact	Further survey is not required of any of the trees which are due for removal for removal, as these are classified as NONE and PRF-I only. See Appendix B for details of PRF-I trees. As such, it is not deemed that any further surveys (i.e., nocturnal emergence surveys or repeat aerial survey visits) are required, in line with best practice guidelines (Collins, 2023). As only PRF-I trees are present a Roost Resource Approach will be taken in line with current guidance (Collins, 2023) (Reason, P.F and Wray, S, 2025), which will include the compensation of loss of these PRFs with the inclusion of bat boxes within the final design at a 1:1 ratio for lost trees. The above measures for protection and retention of green infrastructure, woodland, hedgerows, and the lake itself, will also provide protection of habitats used by bats. Bat activity surveys have confirmed use by a number of species, with habitats adjacent to the lake showing slightly higher levels of use, though all at a level of Local value only. The layout of the site has been designed so as to protect the edge habitat of the woodland and the water for the majority of the northern and western boundary. This extent provides suitable habitat for a number of species in the local area, whilst retention of the northern area of woodland provides further suitable habitat. The open water habitat has also been retained within plans to ensure suitable habitat for Soprano Pipistrelle, which is the dominant species on site and is known to forage around water. This also retains suitable habitat for Daubenton's which foraging over the water's surface and are known to utilise the site. The construction and operational lighting scheme should be designed in accordance with the recent guidance Bats and artificial lighting at Night (Institute of Lighting Professionals, 2023). The protection measures highlighted above in relation to physical protection and lighting will minimise the risk of degradation of the adjacent suitable foraging and commuting habitat.	Roost Resource Approach - Compensation for lost PRFs at 1:1 ratio of lost PRF-I trees to boxes, i.e., three bat boxes provided.	None

Ecological Feature	Impact	Avoidance/Mitigation	Compensation	Significance of Residual Effect
Badger	Low risk of killing/injury to badgers & loss of sett features during construction activities. Minor adverse, temporary, irreversible impact.	No evidence of badger activity noted incidentally during the site visit, where the vast majority of site was visible and surveyed. For this reason, further survey has not been deemed proportionate or justifiable. The presence of the large fence around the lake will likely restrict movement of Badger, though if removed to facilitate access for construction, this may allow the species better passage through the area and the site may be used for foraging. For this reason, combined with the suitable habitat for Badger on site and records of presence in the area including on the site itself, all construction works shall be undertaken in accordance with a set of best practice precautionary reasonable avoidance measures including not leaving pits/trenches open overnight in which Badger may become trapped, no night lighting and safe storage of chemicals.	None	None
Otter	Low risk of killing/injury to otters & loss of resting features during construction activities. Minor adverse, temporary, irreversible impact.	The site has been confirmed as being used by Otter for foraging, commuting, and territory marking, though no evidence of resting places or holts has been identified. In any case, as Otter are known to be present and can create resting places quickly, all vegetation clearance on site should be done under the supervision of a suitably qualified ECoW. If any evidence of a potential resting place or holt is discovered, a suitable buffer will be put in place and works within this area will halt until further information can confirm or deny this resting place. As Otter are known to have large ranges, and forage over a significant area, works here are not deemed to significantly impact the population as the wider Cotswold Water Park area provides extensive suitable habitat. As above, a sensitive lighting scheme will retain the sites suitability for use by Otter during the operational phase.	None	None

Ecological Feature	Impact	Avoidance/Mitigation	Compensation	Significance of Residual Effect
Common Reptiles	Low risk of killing/injury during construction activities. Minor, adverse, temporary, reversible impact.	Reptile surveys have confirmed a <i>Low</i> population of Grass Snake only, and the site is not a key reptile site. As such, there is no requirement for further translocation or compensation for reptiles. To further protect reptiles utilising the site, all vegetation clearance works, or removal of suitable refugia (i.e., current containers, stored materials etc) will be done under the supervision of an ECoW. Any reptiles discovered will be removed by hand and released in a suitable location away from works. Best practice clearance is also recommended, including a staged clearance method where vegetation is cleared to 0.15m height in the first instance to allow reptiles to escape, followed by clearance to ground level.	None	None
Invasive Fauna	Low risk of spread of invasive fauna during construction activities. Minor, adverse, temporary, reversible impact.	Presence of Signal Crayfish confirmed within the site. Although works are unlikely to result in the spread of this species, care should be taken to ensure signal crayfish are not removed from the water during construction, and biosecurity measures are in place to prevent the spread of disease.	None	None
Priority Species	Risk of killing/injury during construction activities. Minor, adverse, temporary, reversible impact.	As above, sensitive clearance of habitats under the supervision of an ECoW. Any priority species allowed to disperse into off site habitats or relocated by hand.	None	None

5.0 Enhancement and Monitoring

- 5.1.1 Opportunities for biodiversity enhancement (above and beyond those required to mitigate for any identified impacts) have been determined through consideration of: Ecological Features identified on site and within the zone of influence; Historical records of protected species/habitats present within the locality; National and Local planning policy including National and Local Biodiversity habitats/species; Local Development Plans including consideration of Green/Blue Infrastructure Resource; Consultation with third parties/stakeholders where applicable; and Other influencing factors such as underlying Geology/Hydrology, intended operational activities, and existing disturbance activities within the locality. This makes specific reference to Biodiversity Net Gain, Good practice principles for development (CIEEM, IEMA, CIRA, 2019).
- 5.1.2 In accordance with the Environment Act 2021 there is a requirement to demonstrate at least +10% biodiversity net gain, and a Biodiversity Net Gain (BNG) calculation i.e. DEFRA statutory metric, has been provided. The watercourse part of this metric calculation is not deemed necessary, as the red line boundary is not within 10m of a watercourse. The lake habitats are not deemed as a watercourse for the purpose of this metric and no MoRPh survey is necessary.
- 5.1.3 Additional biodiversity enhancements will include the following. The specific location and numbers/details of the proposals will be detailed within a Biodiversity Enhancement Strategy (BES) in accordance with BS42020:2013.
- 5.1.4 As the site sits in an area already identified as being an 'Area of Particular Importance to Biodiversity (APIB)' the site does not have any specific enhancement measures within the Local Nature Recovery Strategy (LNRS). As such, enhancements will look to contribute to the surrounding habitats and measures.

Table 9 – Additional Enhancements

Ecological Feature	Additional Enhancements
Green Infrastructure	The final site layout has been designed to maximise the incorporation of native landscape planting and is designed to complement and contribute to the existing features on site. Overall, planting should be focussed on creating linear habitats to enhance the habitat connectivity and wildlife corridor function across and around the site.
Bats	To provide enhanced opportunities for roosting bats the development will incorporate provision of bat roost boxes, at least at 1:1 ratio for lost PRFs in trees, this will be at least 39 bat boxes, which again can be integrated into new buildings/structures. Situated on a south or west facing aspects, at least 6ft from ground level, and away from human/lighting disturbance. Bat boxes should be incorporated into the buildings where possible on the development, alternatively, can be mounted on retained large trees.
Breeding Birds	Installation bird boxes (of a range of types) upon retained large trees to provide additional nesting opportunities. Situated on a north or east facing aspect, at least 6ft from ground level, and away from human/lighting disturbance.
Shelter and refuge for wildlife	Informal deadwood hibernacula can be created and located at the site boundaries, providing enhanced opportunities for sheltering, refuge and hibernating wildlife, including Hedgehog and common amphibians. The arisings from any proposed tree and shrub clearance will provide a suitable material for these informal hibernacula.

- 5.1.5 No post-determination monitoring is currently required. To comply with guidance set out in BS42020:2013, a Construction Environment Management Plan (CEMP) which includes consideration of biodiversity will be produced prior to the commencement of construction activities, including site clearance works or archaeological investigations etc. A Landscape and

Ecological Management Plan (LEMP) will then be produced prior to operation of the site to ensure the continued appropriate management and monitoring of ecological features. A Habitat Management and Monitoring Plan (HMMP) will also be provided to secure BNG habitats for a period of at least 30-years.

6.0 Conclusion

- 6.1.1 Suitable mitigation measures can be incorporated into the proposed application to avoid/ mitigate/ compensate any potential impacts to ecological features and to demonstrate 'no net loss in biodiversity,' and maintenance of favourable conservation status of resident species and no likely significant effects to ecological features which form statutory designations, in accordance with NPPF and local planning policy. As such, no significant residual impact can be expected which would prevent determination of a planning application or development of this site. At the planning officers discretion, Natural England and county ecologist to be consulted to confirm agreement that this development will not result in likely significant effect to the Cotswold Waterpark SSSI and associated bird species.
- 6.1.2 The site re-development allows the opportunity to provide additional enhancements, and following completion of the BNG metric, to demonstrate a 'biodiversity net gain'.

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Drawing CRM100005-ENZ-XX-XX-DR-Z-0004– Habitat Map



- Key:**
- Redline Boundary
 - Native hedgerow (h2a)
 - Modified grassland (g4)
 - Mixed scrub (h3h)
 - Eutrophic standing waters (r1a)
 - Wet woodland (w1d)
 - Surveyed Trees - To be read in conjunction with Arboriculture Survey

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P01	05.03.26	Preliminary Issue	LB	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Bluestone Planning Ltd

Drawing Title
UK Habitat Classification Map

Scale	Date	Status
1:2,500 @ A3	05/03/2026	Preliminary

DWG No.	Revision
CRM755001-ENZ-XX-XX-DR-Z-0004	P01

Bristol

01454 269 237

Manchester

0161 413 6444

Sheffield

0114 321 5151

Cardiff

02920 023 700

Cambridge

01799 542 473

Belfast

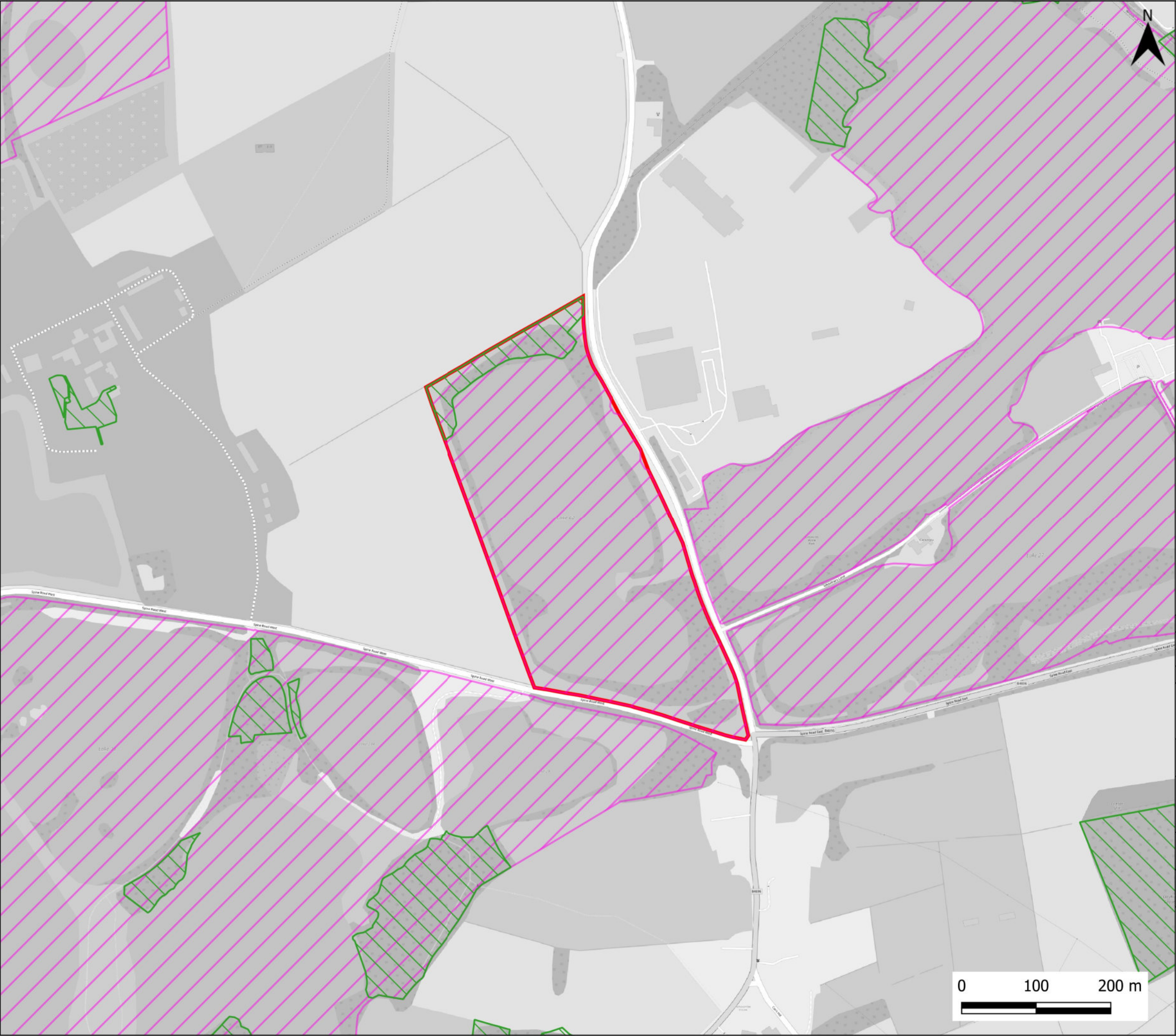
07377673948

@enzygo

enzygo.com

hello@enzygo.com

Drawing CRM100005-ENZ-XX-XX-DR-Z-0025 – Desk Study Map



Key:

- Redline Boundary
- Sites of Special Scientific Interest (England) © Natural England
- Deciduous woodland (England) © Natural England

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Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Bluestone Planning Ltd

Drawing Title
Desk Study Map

Scale 1:5,000 @ A3	Date 05/03/2026	Status Preliminary
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DWG No. CRM755001-ENZ-XX-XX-DR-Z-0025	Revision P01
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Bristol
01454 269 237

Manchester
0161 413 6444

Sheffield
0114 321 5151

Cardiff
02920 023 700

Cambridge
01799 542 473

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enzygo

@enzygo
enzygo.com
hello@enzygo.com

**Drawings CRM100005-ENZ-XX-XX-DR-Z-0001,2,3,5,6,7 –
Breeding Bird Survey Maps**



KEY:

- Site Boundary
- Singing
- Calling
- Alarm Calling
- Aggressive Encounter
- Flight Direction
- Female
- Male
- Registration - Same Bird
- Registration - Different Bird
- Registration - Probably Same Bird
- Occupied Nest
- Occupied Specially Provided Nest
- Bird carrying food
- Survey Vantage Point
- Camera Trap Point

P02	25.02.26	Records Updated	LB	KS	KS
P01	21.08.24	Issued for comment / approval	LW	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Bluestone Planning Ltd

Drawing Title
Breeding Bird Survey - 14-06-2024

Scale 1:2,500@A3	Date 21.08.24	Status Preliminary
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DWG No.
CRM100005-ENZ-XX-XX-DR-Z-0001

Revision
P02

Bristol
01454 269 237
Manchester
0161 413 6444
Sheffield
0114 321 5151

Cardiff
02920 023 700
Cambridge
01799 542 473
Belfast
07377673948

enzygo

@enzygo
enzygo.com
hello@enzygo.com



KEY:

- Site Boundary
- Singing
- Calling
- Alarm Calling
- Aggressive Encounter
- Flight Direction
- Female
- Male
- Registration - Same Bird
- Registration - Different Bird
- Registration - Probably Same Bird
- Occupied Nest
- Occupied Specially Provided Nest
- Bird carrying food
- Survey Vantage Point
- Camera Trap Point

P01	21.08.24	Issued for comment / approval	LW	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Bluestone Planning Ltd

Drawing Title
Breeding Bird Survey - 08-07-2024

Scale 1:2,500@A3	Date 21.08.24	Status Preliminary
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DWG No. CRM100005-ENZ-XX-XX-DR-Z-0002	Revision P01
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Bristol
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02920 023 700
Cambridge
01799 542 473
Belfast
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enzygo.com
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KEY:

- Site Boundary
- Singing
- Calling
- Alarm Calling
- Aggressive Encounter
- Flight Direction
- Female
- Male
- Registration - Same Bird
- Registration - Different Bird
- Registration - Probably Same Bird
- Occupied Nest
- Occupied Specially Provided Nest
- Bird carrying food
- Survey Vantage Point
- Camera Trap Point

P02	25.02.26	Records Updated	LB	KS	KS
P01	21.08.24	Issued for comment / approval	LW	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Bluestone Planning Ltd

Drawing Title
Breeding Bird Survey - 18-07-2024

Scale 1:2,500@A3	Date 21.08.24	Status Preliminary
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DWG No. CRM100005-ENZ-XX-XX-DR-Z-0003	Revision P02
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0114 321 5151

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enzygo.com
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KEY:

Site Boundary

Singing

Calling

Alarm Calling

Aggressive Encounter

Flight Direction

Female

Male

Registration - Same Bird

Registration - Different Bird

Registration - Probably Same Bird

Occupied Nest

Occupied Specially Provided Nest

Bird carrying food

Survey Vantage Point

Camera Trap Point

P01	09.07.25	Issued for comment / approval	LW	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Bluestone Planning Ltd

Drawing Title
Breeding Bird Survey - 15-04-2025

Scale 1:2,500@A3	Date 09.07.25	Status Preliminary
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DWG No. CRM100005-ENZ-XX-XX-DR-Z-0005	Revision P01
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Cardiff
02920 023 700

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01799 542 473

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enzygo.com
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KEY:

- Site Boundary
- Singing
- Calling
- Alarm Calling
- Aggressive Encounter
- Flight Direction
- Female
- Male
- Registration - Same Bird
- Registration - Different Bird
- Registration - Probably Same Bird
- Occupied Nest
- Occupied Specially Provided Nest
- Bird carrying food
- Survey Vantage Point
- Camera Trap Point

P01	09.07.25	Issued for comment / approval	LW	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Bluestone Planning Ltd

Drawing Title
Breeding Bird Survey - 08-05-2025

Scale 1:2,500@A3	Date 09.07.25	Status Preliminary
----------------------------	-------------------------	------------------------------

DWG No. CRM100005-ENZ-XX-XX-DR-Z-0006	Revision P01
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enzygo.com
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KEY:

- Site Boundary
- Singing
- Calling
- Alarm Calling
- Aggressive Encounter
- Flight Direction
- Female
- Male
- Registration - Same Bird
- Registration - Different Bird
- Registration - Probably Same Bird
- Occupied Nest
- Occupied Specially Provided Nest
- Bird carrying food
- Survey Vantage Point
- Camera Trap Point

P01	09.07.25	Issued for comment / approval	LW	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Bluestone Planning Ltd

Drawing Title
Breeding Bird Survey - 18-05-2025

Scale 1:2,500@A3	Date 09.07.25	Status Preliminary
----------------------------	-------------------------	------------------------------

DWG No. CRM100005-ENZ-XX-XX-DR-Z-0007	Revision P01
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Bristol
01454 269 237

Manchester
0161 413 6444

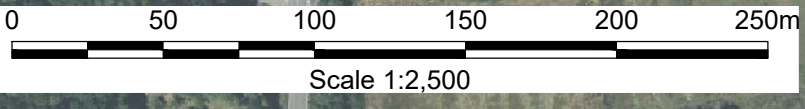
Sheffield
0114 321 5151

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enzygo.com
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**Drawings CRM100005-ENZ-XX-XX-DR-Z-0008 to 0019 –
Wintering Bird Survey Maps**



KEY:

- Site Boundary
- Singing
- Calling
- Alarm Calling
- Aggressive Encounter
- Flight Direction
- Female
- Male
- Registration - Same Bird
- Registration - Different Bird
- Registration - Probably Same Bird
- Occupied Nest
- Occupied Specially Provided Nest
- Bird carrying food
- Survey Vantage Point
- Camera Trap Point

P01	26.02.26	Issued for comment / approval	LB	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Bluestone Planning Ltd

Drawing Title
Wintering Bird Survey - 18.10.24

Scale 1:2,500@A3	Date 26.02.26	Status Preliminary
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DWG No.
CRM100005-ENZ-XX-XX-DR-Z-0008

Revision
P01

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KEY:

- Site Boundary
- Singing
- Calling
- Alarm Calling
- Aggressive Encounter
- Flight Direction
- Female
- Male
- Registration - Same Bird
- Registration - Different Bird
- Registration - Probably Same Bird
- Occupied Nest
- Occupied Specially Provided Nest
- Bird carrying food
- Survey Vantage Point
- Camera Trap Point

P01	26.02.26	Issued for comment / approval	LB	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Bluestone Planning Ltd

Drawing Title
Wintering Bird Survey - 31.10.24

Scale 1:2,500@A3	Date 26.02.26	Status Preliminary
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DWG No.
CRM100005-ENZ-XX-XX-DR-Z-0009

Revision
P01

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KEY:

- Site Boundary
- Singing
- Calling
- Alarm Calling
- Aggressive Encounter
- Flight Direction
- Female
- Male
- Registration - Same Bird
- Registration - Different Bird
- Registration - Probably Same Bird
- Occupied Nest
- Occupied Specially Provided Nest
- Bird carrying food
- Survey Vantage Point
- Camera Trap Point

P01	26.02.26	Issued for comment / approval	LB	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Bluestone Planning Ltd

Drawing Title
Wintering Bird Survey - 11.11.24

Scale 1:2,500@A3	Date 26.02.26	Status Preliminary
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DWG No.
CRM100005-ENZ-XX-XX-DR-Z-0010

Revision
P01

Bristol
01454 269 237

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enzygo.com
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KEY:

- Site Boundary
- Singing
- Calling
- Alarm Calling
- Aggressive Encounter
- Flight Direction
- Female
- Male
- Registration - Same Bird
- Registration - Different Bird
- Registration - Probably Same Bird
- Occupied Nest
- Occupied Specially Provided Nest
- Bird carrying food
- Survey Vantage Point
- Camera Trap Point

Rev	Date	Description	DRA	CHK	APP
P01	26.02.26	Issued for comment / approval	LB	TP	TP

Project
Lake 62, Cotswold Water Park

Client
Bluestone Planning Ltd

Drawing Title
Wintering Bird Survey - 17.11.24

Scale	Date	Status
1:2,500@A3	26.02.26	Preliminary

DWG No.	Revision
CRM100005-ENZ-XX-XX-DR-Z-0011	P01

Bristol
01454 269 237
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KEY:

- Site Boundary
- Singing
- Calling
- Alarm Calling
- Aggressive Encounter
- Flight Direction
- Female
- Male
- Registration - Same Bird
- Registration - Different Bird
- Registration - Probably Same Bird
- Occupied Nest
- Occupied Specially Provided Nest
- Bird carrying food
- Survey Vantage Point
- Camera Trap Point

P01	26.02.26	Issued for comment / approval	LB	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Bluestone Planning Ltd

Drawing Title
Wintering Bird Survey - 17.12.24

Scale 1:2,500@A3	Date 26.02.26	Status Preliminary
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DWG No.
CRM100005-ENZ-XX-XX-DR-Z-0012

Revision
P01

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Belfast
07377673948

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enzygo.com
hello@enzygo.com



KEY:

- Site Boundary
- Singing
- Calling
- Alarm Calling
- Aggressive Encounter
- Flight Direction
- Female
- Male
- Registration - Same Bird
- Registration - Different Bird
- Registration - Probably Same Bird
- Occupied Nest
- Occupied Specially Provided Nest
- Bird carrying food
- Survey Vantage Point
- Camera Trap Point

P01	26.02.26	Issued for comment / approval	LB	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Bluestone Planning Ltd

Drawing Title
Wintering Bird Survey - 31.12.24

Scale 1:2,500@A3	Date 26.02.26	Status Preliminary
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DWG No. CRM100005-ENZ-XX-XX-DR-Z-0013	Revision P01
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Cambridge
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Belfast
07377673948

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@enzygo
enzygo.com
hello@enzygo.com



KEY:

- Site Boundary
- Singing
- Calling
- Alarm Calling
- Aggressive Encounter
- Flight Direction
- Female
- Male
- Registration - Same Bird
- Registration - Different Bird
- Registration - Probably Same Bird
- Occupied Nest
- Occupied Specially Provided Nest
- Bird carrying food
- Survey Vantage Point
- Camera Trap Point

P01	26.02.26	Issued for comment / approval	LB	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Bluestone Planning Ltd

Drawing Title
Wintering Bird Survey - 08.01.25

Scale 1:2,500@A3	Date 26.02.26	Status Preliminary
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DWG No. CRM100005-ENZ-XX-XX-DR-Z-0014	Revision P01
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Sheffield
0114 321 5151

Cardiff
02920 023 700

Cambridge
01799 542 473

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07377673948

@enzygo
enzygo.com
hello@enzygo.com



KEY:

- Site Boundary
- Singing
- Calling
- Alarm Calling
- Aggressive Encounter
- Flight Direction
- Female
- Male
- Registration - Same Bird
- Registration - Different Bird
- Registration - Probably Same Bird
- Occupied Nest
- Occupied Specially Provided Nest
- Bird carrying food
- Survey Vantage Point
- Camera Trap Point

P01	26.02.26	Issued for comment / approval	LB	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Bluestone Planning Ltd

Drawing Title
Wintering Bird Survey - 30.01.25

Scale 1:2,500@A3	Date 26.02.26	Status Preliminary
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DWG No. CRM100005-ENZ-XX-XX-DR-Z-0015	Revision P01
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@enzygo
enzygo.com
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KEY:

- Site Boundary
- Singing
- Calling
- Alarm Calling
- Aggressive Encounter
- Flight Direction
- Female
- Male
- Registration - Same Bird
- Registration - Different Bird
- Registration - Probably Same Bird
- Occupied Nest
- Occupied Specially Provided Nest
- Bird carrying food
- Survey Vantage Point
- Camera Trap Point

P01	26.02.26	Issued for comment / approval	LB	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Bluestone Planning Ltd

Drawing Title
Wintering Bird Survey - 18.02.25

Scale 1:2,500@A3	Date 26.02.26	Status Preliminary
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DWG No. CRM100005-ENZ-XX-XX-DR-Z-0016	Revision P01
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Bristol
01454 269 237

Manchester
0161 413 6444

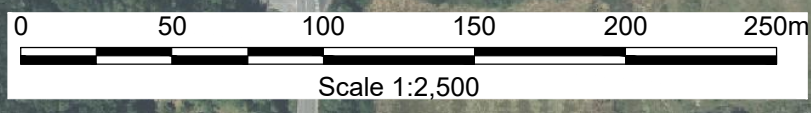
Sheffield
0114 321 5151

Cardiff
02920 023 700

Cambridge
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Belfast
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enzygo.com
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KEY:

- Site Boundary
- Singing
- Calling
- Alarm Calling
- Aggressive Encounter
- Flight Direction
- Female
- Male
- Registration - Same Bird
- Registration - Different Bird
- Registration - Probably Same Bird
- Occupied Nest
- Occupied Specially Provided Nest
- Bird carrying food
- Survey Vantage Point
- Camera Trap Point

P01	26.02.26	Issued for comment / approval	LB	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Bluestone Planning Ltd

Drawing Title
Wintering Bird Survey - 27.02.25

Scale 1:2,500@A3	Date 26.02.26	Status Preliminary
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DWG No. CRM100005-ENZ-XX-XX-DR-Z-0017	Revision P01
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Cambridge
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enzygo.com
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KEY:

- Site Boundary
- Singing
- Calling
- Alarm Calling
- Aggressive Encounter
- Flight Direction
- Female
- Male
- Registration - Same Bird
- Registration - Different Bird
- Registration - Probably Same Bird
- Occupied Nest
- Occupied Specially Provided Nest
- Bird carrying food
- Survey Vantage Point
- Camera Trap Point

P01	26.02.26	Issued for comment / approval	LB	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Bluestone Planning Ltd

Drawing Title
Wintering Bird Survey - 11.03.25

Scale 1:2,500@A3	Date 26.02.26	Status Preliminary
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DWG No.
CRM100005-ENZ-XX-XX-DR-Z-0018

Revision
P01

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Cardiff
02920 023 700

Cambridge
01799 542 473

Belfast
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@enzygo
enzygo.com
hello@enzygo.com



KEY:

- Site Boundary
- Singing
- Calling
- Alarm Calling
- Aggressive Encounter
- Flight Direction
- Female
- Male
- Registration - Same Bird
- Registration - Different Bird
- Registration - Probably Same Bird
- Occupied Nest
- Occupied Specially Provided Nest
- Bird carrying food
- Survey Vantage Point
- Camera Trap Point

P01	26.02.26	Issued for comment / approval	LB	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Bluestone Planning Ltd

Drawing Title
Wintering Bird Survey - 25.03.25

Scale 1:2,500@A3	Date 26.02.26	Status Preliminary
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DWG No. CRM100005-ENZ-XX-XX-DR-Z-0019	Revision P01
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02920 023 700

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01799 542 473

Belfast
07377673948

enzygo

@enzygo
enzygo.com
hello@enzygo.com

**Drawings CRM100005-ENZ-XX-XX-DR-Z-0020 to 0023– Bat
Activity Maps**



KEY:

- Site Boundary
- Flight Path
- Spot Counts
- SM4
- PIPPYG
High BAI ≥ 60
- PIPPYG
Moderate BAI ≥ 6 but < 60
- PIPPYG
Low BAI > 0 but < 6
- PIPPIP
High BAI ≥ 60
- PIPPIP
Moderate BAI ≥ 6 but < 60
- PIPPIP
Low BAI > 0 but < 6
- PIP NAT
High BAI ≥ 60
- PIP NAT
Moderate BAI ≥ 6 but < 60
- PIP NAT
Low BAI > 0 but < 6

P01	26/02/26	Issued for comment / approval	SD	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Quinque Stella Holdings Ltd

Drawing Title
Bat Activity Results (Pipistrellus)

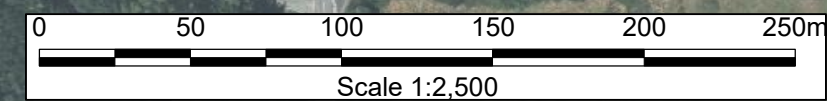
Scale 1:2,500@A3	Date 26/02/26	Status Preliminary
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DWG No. CRM100005-ENZ-XX-XX-DR-Z-0020	Revision P01
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Bristol 01454 269 237	Cardiff 02920 023 700
Manchester 0161 413 6444	Cambridge 01799 542 473
Sheffield 0114 321 5151	Belfast 07377673948



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enzygo.com
hello@enzygo.com





KEY:

- Site Boundary
- Flight Path
- Spot Counts
- SM4
- EPTSER High BAI ≥ 60
- EPTSER Moderate BAI ≥ 6 but < 60
- EPTSER Low BAI > 0 but < 6
- NYCLEI High BAI ≥ 60
- NYCLEI Moderate BAI ≥ 6 but < 60
- NYCLEI Low BAI > 0 but < 6
- NYCNOC High BAI ≥ 60
- NYCNOC Moderate BAI ≥ 6 but < 60
- NYCNOC Low BAI > 0 but < 6

P01	26/02/26	Issued for comment / approval	SD	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Quinque Stella Holdings Ltd

Drawing Title
Bat Activity Results (Nyctalus)

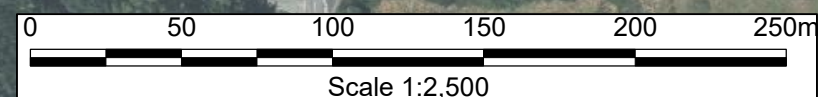
Scale 1:2,500@A3	Date 26/02/26	Status Preliminary
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DWG No. CRM100005-ENZ-XX-XX-DR-Z-0021	Revision P01
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enzygo.com
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KEY:

- Site Boundary
- Flight Path
- Spot Counts
- SM4
- MYODAU High BAI ≥ 60
- MYODAU Moderate BAI ≥ 6 but < 60
- MYODAU Low BAI > 0 but < 6
- MYONAT High BAI ≥ 60
- MYONAT Moderate BAI ≥ 6 but < 60
- MYONAT Low BAI > 0 but < 6
- MYOMYS High BAI ≥ 60
- MYOMYS Moderate BAI ≥ 6 but < 60
- MYOMYS Low BAI > 0 but < 6
- MYOBRA High BAI ≥ 60
- MYOBRA Moderate BAI ≥ 6 but < 60
- MYOBRA Low BAI > 0 but < 6

P01	26/02/26	Issued for comment / approval	SD	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Quinque Stella Holdings Ltd

Drawing Title
Bat Activity Results (Myotis)

Scale 1:2,500@A3	Date 26/02/26	Status Preliminary
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DWG No. CRM100005-ENZ-XX-XX-DR-Z-0022	Revision P01
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KEY:

- Site Boundary
- Flight Path
- Spot Counts
- SM4
- BARBAR
High BAI ≥ 60
- BARBAR
Moderate BAI ≥ 6 but < 60
- BARBAR
Low BAI > 0 but < 6
- PLEAUR
High BAI ≥ 60
- PLEAUR
Moderate BAI ≥ 6 but < 60
- PLEAUR
Low BAI > 0 but < 6

P01	26/02/26	Issued for comment / approval	SD	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Quinque Stella Holdings Ltd

Drawing Title
Bat Activity Results (Other Species)

Scale 1:2,500@A3	Date 26/02/26	Status Preliminary
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DWG No. CRM100005-ENZ-XX-XX-DR-Z-0023	Revision P01
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Bristol 01454 269 237	Cardiff 02920 023 700
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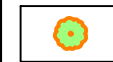
Drawing CRM100005-ENZ-XX-XX-DR-Z-0026 – GLTA Map



KEY:



Site Boundary



PRF-I Trees suitable for single or very small numbers of bats

All tree locations are a rough indication only, as these have not been mapped individually on the Aboricultural Report



Site Location Plan - NTS

P01	21/04/26	Issued for comment / approval	SD	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Quinque Stella Holdings Ltd

Drawing Title
Bat Tree Assessment

Scale NTS@A3	Date 21/04/26	Status Preliminary
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DWG No. CRM100005-ENZ-XX-XX-DR-Z-0026	Revision P01
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@enzygo
enzygo.com
hello@enzygo.com

Drawing CRM100005-ENZ-XX-XX-DR-Z-0024– Reptile Survey Map



KEY:

- Site Boundary
- Reptile Refugia (1-49)
- Grass Snake (>10) Exceptional Population
- Grass Snake (5-10) Good Population
- Grass Snake (<5) Low Population

P01	26.02.26	Issued for comment / approval	LB	TP	TP
Rev	Date	Description	DRA	CHK	APP

Project
Lake 62, Cotswold Water Park

Client
Bluestone Planning Ltd

Drawing Title
Reptile Survey

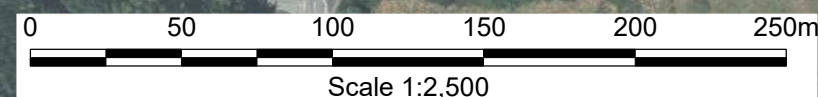
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DWG No. CRM100005-ENZ-XX-XX-DR-Z-0024	Revision P01
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Bristol 01454 269 237	Cardiff 02920 023 700
Manchester 0161 413 6444	Cambridge 01799 542 473
Sheffield 0114 321 5151	Belfast 07377673948



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Appendix A – Proposed Site Plan

Drawing Revisions

00	14/07/25	Option Study
01	26/07/25	Option 1 Revised
02	25/09/25	Layout Updates
03	29/09/25	Cycle Path Updates
04	04/11/25	Site Layout Updates

KEY:

- Viewing + Seating Area
- Vertical Axis Wind Turbine
- Sub-Station / Plant
- Slipway + Mooring
- Parking Spaces
- Open + Forest Stroll Consultation Room / WC
- Bicycle Hire
- Recycling + Refuse Collection Points
- Accommodation Lodges
- Accommodation Lodges
- Extended Parking Bay

- new vehicular / bicycle access route
- existing paths around the site



1 proposed site plan, Option 1

Appendix B – Ground Level Tree Assessment Results

Tree Number Reference	Description	Assessment (Suitability for Roosting Bats (Collins, 2023))
G6A	Flaking bark, Crevice 	PRF-I
G6B	Ivy 	PRF-I
G6D	Flaking bark 	PRF-I

G6E	Flaking bark 	PRF-I
G6F	Ivy, Crevice 	PRF-I
G6G	Flaking bark 	PRF-I

G6H	Flaking bark, Crevice 	PRF-I
G6I	Flaking bark, Crevice, Rot Hole (does not significantly extend, clear view through binoculars) 	PRF-I

G6J	Flaking bark, Crevice 	PRF-I
G6K	Crack, Broken limb (does not significantly extend, clear view through binoculars) 	PRF-I
G6L	Crevice 	PRF-I

G6M	Crevice 	PRF-I
G6N	Crevice, Rot Hole (does not significantly extend, low enough for clear view) 	PRF-I
G34A	Flaking bark, Crevice 	PRF-I

G33A	Flaking bark, Crevice, Ivy 	PRF-I
G29A	Crevice 	PRF-I
G29B	Crevice 	PRF-I
G29C	Crevice, Rot Hole, Broken limb (does not significantly extend, low enough for inspection) 	PRF-I

G29D	Crevice, Rot hole 	PRF-I
G29E	Crevice, Rot hole 	PRF-I
G31A	Broken limb, Split, Crevice (all facing up and water in) 	PRF-I
G31B	Flaking bark, Crevice 	PRF-I

G16A	Flaking bark, Ivy 	PRF-I
G16B	Crack, Split, Crevice (although features appear initially suitable for multiple bats, all features are facing up and are open to the elements, and no suitable dry areas suitable for multiple bats were observed) 	PRF-I
G16C	Flaking bark, Crevice 	PRF-I

G16D	Crack, Split, Crevice, Flaking bark (does not significantly extend into cavity, low enough to inspect fully) 	PRF-I
G16E	Crack, Split, Crevice (does not significantly extend into cavity, low enough to inspect fully) 	PRF-I
G16F	Flaking bark, Crevice 	PRF-I

G16G	Flaking bark, Crevice 	PRF-I
G16H	Rot hole, Crack, Crevice, Flaking bark (does not significantly extend, full inspection possible through binoculars) 	PRF-I
G7A	Flaking bark, Broken limb 	PRF-I

G35A	Flaking bark, Crevice 	PRF-I
G35B	Flaking bark, Broken Limb, Crack 	PRF-I
G35C	Broken limb, Crack 	PRF-I

G35D	Broken limb, Crack 	PRF-I
G30A	Broken limb, Crack, Flaking bark, Ivy 	PRF-I
G12A	Split, Broken limb 	PRF-I

G12B	Flaking bark, Crack 	PRF-I
G12C	Broken limb, Crack 	PRF-I

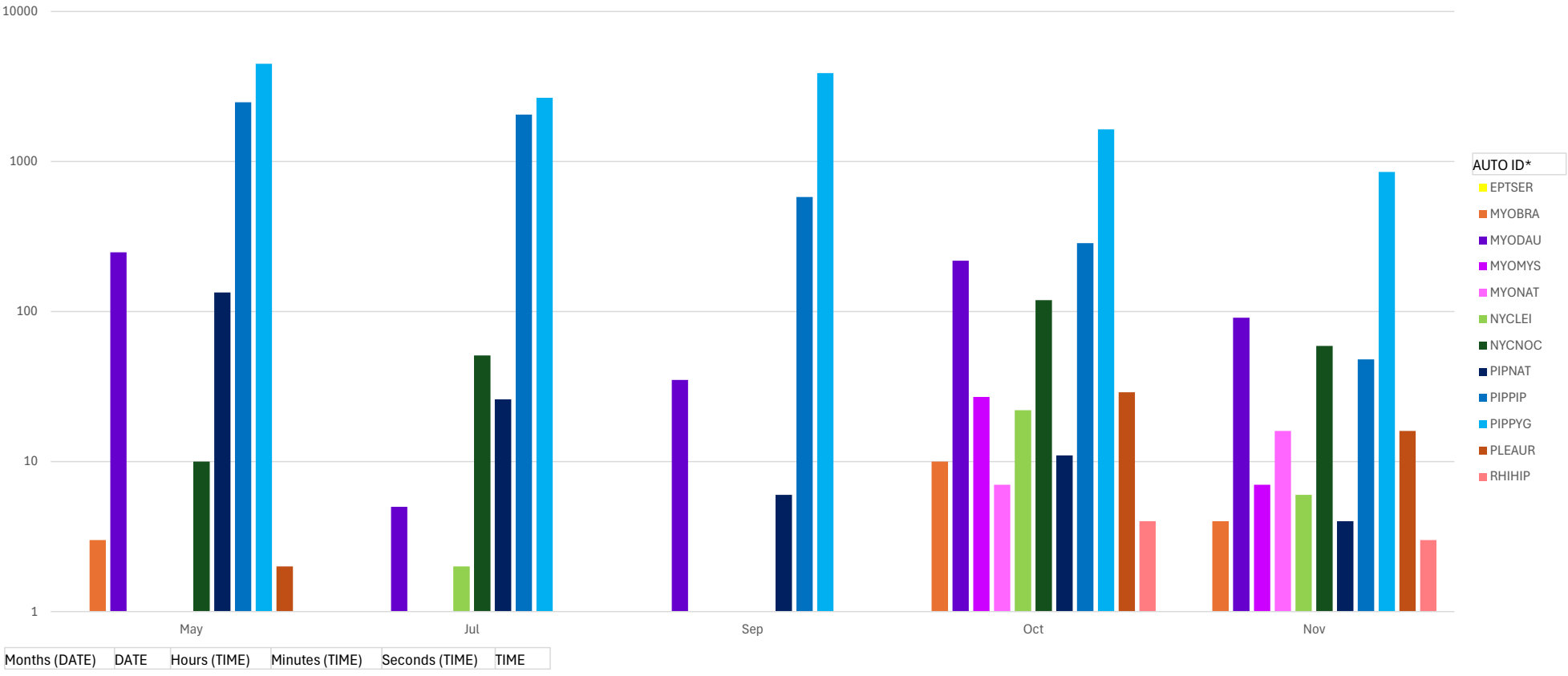
Appendix C – Bat Activity Survey Results

Static Data				Number of passes																	
SM4																					
Date	Transect	location	hrs	RHIFER	RHIHIP	NYONOC	NYCLEI	EPTSER	BARBAR	PIPPIP	PIPPYG	PIPNAT	PLEAUR	PLEAUS	MYODAU	MYONAT	MYOMYS	MYOALC	MYOBRA	MYOBEC	VAGRAN
May-25	1	W	56.00	-	7	74	3	2	2	1643	2839	86	-	-	57	-	11	-	3	-	-
May-25	2	E	56.00	-	-	10	-	1	-	2483	4480	134	2	-	248	-	-	-	3	-	-
Jun-24	1	W	40.00	-	-	1	-	-	1	155	475	1	-	-	1	-	-	-	-	-	-
Jun-24	2	E	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jul-24	1	W	67.50	-	2	86	15	11	-	984	3982	35	2	-	197	-	2	-	1	-	-
Jul-24	2	E	67.50	-	-	51	2	-	-	2058	2660	26	-	-	5	-	-	-	-	-	-
Sep-24	1	W	88.00	-	-	116	12	-	1	245	2848	42	10	-	372	10	14	-	4	-	-
Sep-24	2	E	88.00	-	-	1	1	-	-	580	3887	6	-	-	35	-	-	-	-	-	-
Oct-24	1	W	112.00	-	-	6	2	-	-	603	403	80	-	-	8	-	-	-	-	-	-
Oct-24	2	E	112.00	-	4	119	22	-	-	286	1639	11	29	-	218	7	27	-	10	-	-
Nov-24	1	W	135.00	-	-	-	-	-	-	25	16	1	-	-	-	-	-	-	-	-	-
Nov-24	2	E	135.00	-	3	59	6	-	-	48	852	4	16	-	91	16	7	-	4	-	-
Total			957.00	0	16	523	63	14	4	9110	24081	426	59	0	1232	33	61	0	25	0	0
Bat Activity Index (BAI)				0.00	0.02	0.55	0.07	0.01	0.00	9.52	25.16	0.45	0.06	0.00	1.29	0.03	0.06	0.00	0.03	0.00	0.00

Date	Spot Count/		hrs	mins	Number of passes																	
	Transect	Sector			RHIFER	RHIHIP	NYCNOI	NYCLEI	EPTSER	BARBAI	PIPPIP	PIPPYG	PIP NAT	PLEAUR	PLEAUS	MYODA	MYONA	MYOMI	MYOAL	MYOBR	MYOBE	VAGRAI
29/08/2024	1	1	0.0833	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29/08/2024	1	1-2.	0.0333	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29/08/2024	1	2	0.0833	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29/08/2024	1	2-3.	0.0167	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29/08/2024	1	3	0.0833	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29/08/2024	1	3-4.	0.0167	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29/08/2024	1	4	0.0833	5	-	-	1	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-
29/08/2024	1	4-5.	0.0333	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29/08/2024	1	5	0.0833	5	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-
29/08/2024	1	5-6.	0.0333	2	-	-	1	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-
29/08/2024	1	6	0.0833	5	-	-	2	-	-	-	1	20	-	-	-	-	-	-	-	-	1	-
29/08/2024	1	6-7.	0.0333	2	-	-	1	-	-	-	2	6	-	-	-	-	-	-	-	-	-	-
29/08/2024	1	7	0.0833	5	-	-	2	-	-	-	2	4	-	-	-	1	-	-	-	-	-	-
29/08/2024	1	7-8.	0.0167	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
29/08/2024	1	8	0.0833	5	-	-	1	-	-	-	3	4	-	-	-	-	-	-	-	-	-	-
29/08/2024	1	8-9.	0.0333	2	-	-	-	-	-	-	2	3	-	-	-	-	-	-	-	-	-	-
29/08/2024	1	9	0.0833	5	-	-	-	-	-	-	30	30	-	-	-	-	-	-	-	-	-	-
29/08/2024	1	9-10.	0.0333	2	-	-	-	-	-	-	12	12	-	-	-	-	-	-	-	-	-	-
29/08/2024	1	10	0.0833	5	-	-	-	-	-	-	23	10	1	-	-	-	-	-	-	-	-	-
29/08/2024	1	10-11.	0.0833	5	-	-	-	-	-	-	20	20	-	-	-	2	-	-	-	-	-	-
29/08/2024	1	11	0.0833	5	-	-	-	-	-	-	30	15	-	-	-	1	-	-	-	-	-	-
29/08/2024	1	11-12.	0.1167	7	-	-	-	-	-	-	8	6	-	-	-	-	-	-	-	-	-	-
29/08/2024	1	12	0.0833	5	-	-	-	-	-	-	16	20	-	-	-	2	-	-	-	-	-	-
29/08/2024	1	12-1.	0.0667	4	-	-	-	-	-	-	9	5	-	-	-	1	-	-	-	-	-	-
29/08/2024	1	1	0.0833	5	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
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29/08/2024	1	4-5.	0.0333	2	-	-	-	-	-	-	9	11	-	-	-	-	-	-	-	-	-	-
17/09/2024	2	1	0.0833	5	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
17/09/2024	2	1-12.	0.0333	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17/09/2024	2	12	0.0833	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17/09/2024	2	12-11.	0.0500	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17/09/2024	2	11	0.0833	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17/09/2024	2	11-10.	0.0333	2	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17/09/2024	2	10	0.0833	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-
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17/09/2024	2	9	0.0833	5	-	-	2	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-
17/09/2024	2	9-8.	0.0167	1	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-
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17/09/2024	2	8-7.	0.0333	2	-	-	-	-	-	-	1	8	-	-	-	-	-	-	-	-	-	-
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17/09/2024	2	6-5.	0.0667	4	-	-	-	-	-	-	3	7	-	-	-	1	-	-	-	-	-	-
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17/09/2024	2	11-10.	0.0500	3	-	-	-	-	-	-	3	6	-	-	-	4	-	-	-	-	-	-
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17/09/2024	2	10-9.	0.0333	2	-	-	-	-	-	-	1	5	-	-	-	-	-	-	-	-	-	-
29/05/2025	3	1	0.0833	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29/05/2025	3	1-2.	0.0667	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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29/05/2025	3	6	0.0833	5	-	-	1	-	-	-	-	15	-	-	-	-	-	-	-	-	-	-
29/05/2025	3	6-7.	0.0333	2	-	-	1	-	-	-	2	17	-	-	-	-	-	-	-	-	-	-
29/05/2025	3	7	0.0833	5	-	-	2	-	-	-	-	16	-	-	-	-	-	-	-	-	-	-
29/05/2025	3	7-8.	0.0333	2	-	-	-	-	-	-	3	7	-	-	-	-	-	-	-	-	-	-
29/05/2025	3	8	0.0833	5	-	-	-	-	-	-	-	19	-	-	-	-	-	-	-	-	-	-
29/05/2025	3	8-9.	0.0833	5	-	-	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-
29/05/2025	3	9	0.0833	5	-	-	-	-	-	-	3	21	-	-	-	-	-	-	-	-	-	-
29/05/2025	3	9-10.	0.0167	1	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-
29/05/2025	3	10	0.0833	5	-	-	2	-	-	-	8	19	-	-	-	-	-	-	-	-	-	-
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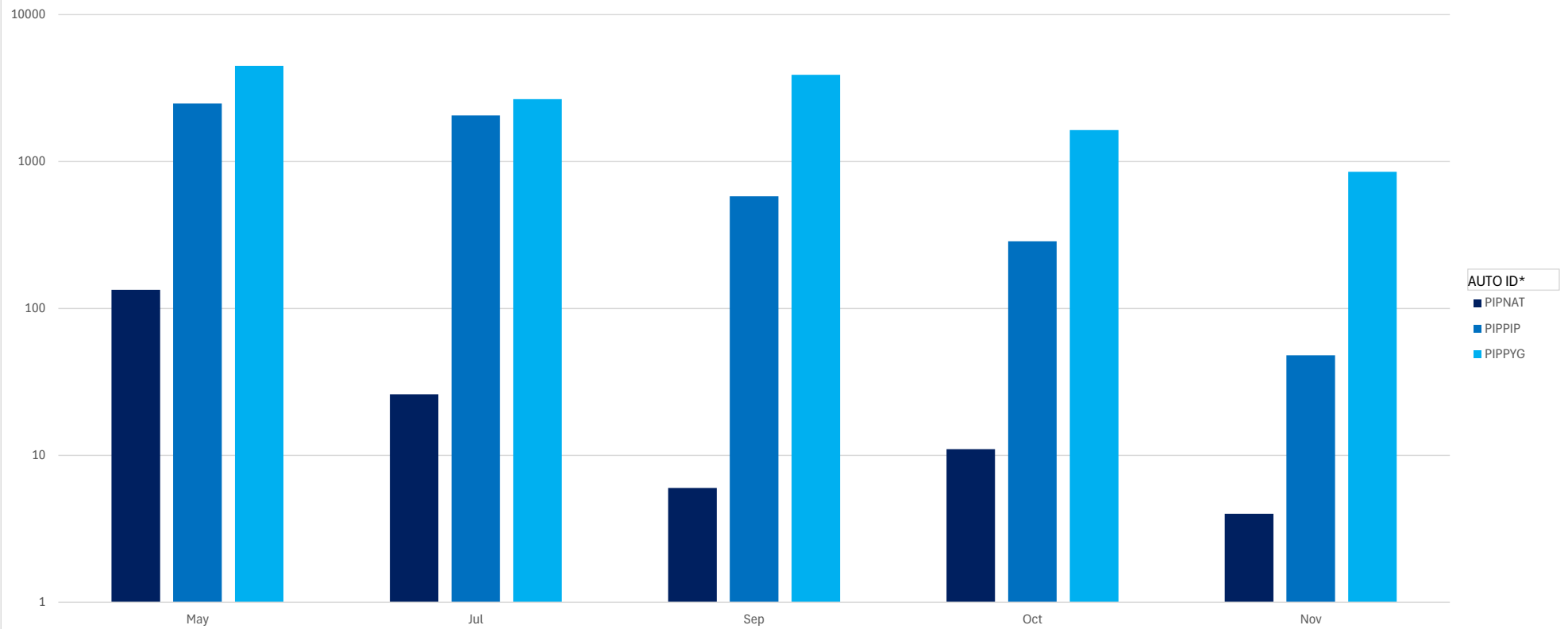
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Static Data East - All Species



Count of AUTO ID*

Static Data East - *Pipistrellus*



Months (DATE) DATE Hours (TIME) Minutes (TIME) Seconds (TIME) TIME

Count of AUTO ID*

Static Data East - *Myotis*

1000

100

10

1

AUTO ID*

- MYOBRA
- MYODAU
- MYOMYS
- MYONAT

May

Jul

Sep

Oct

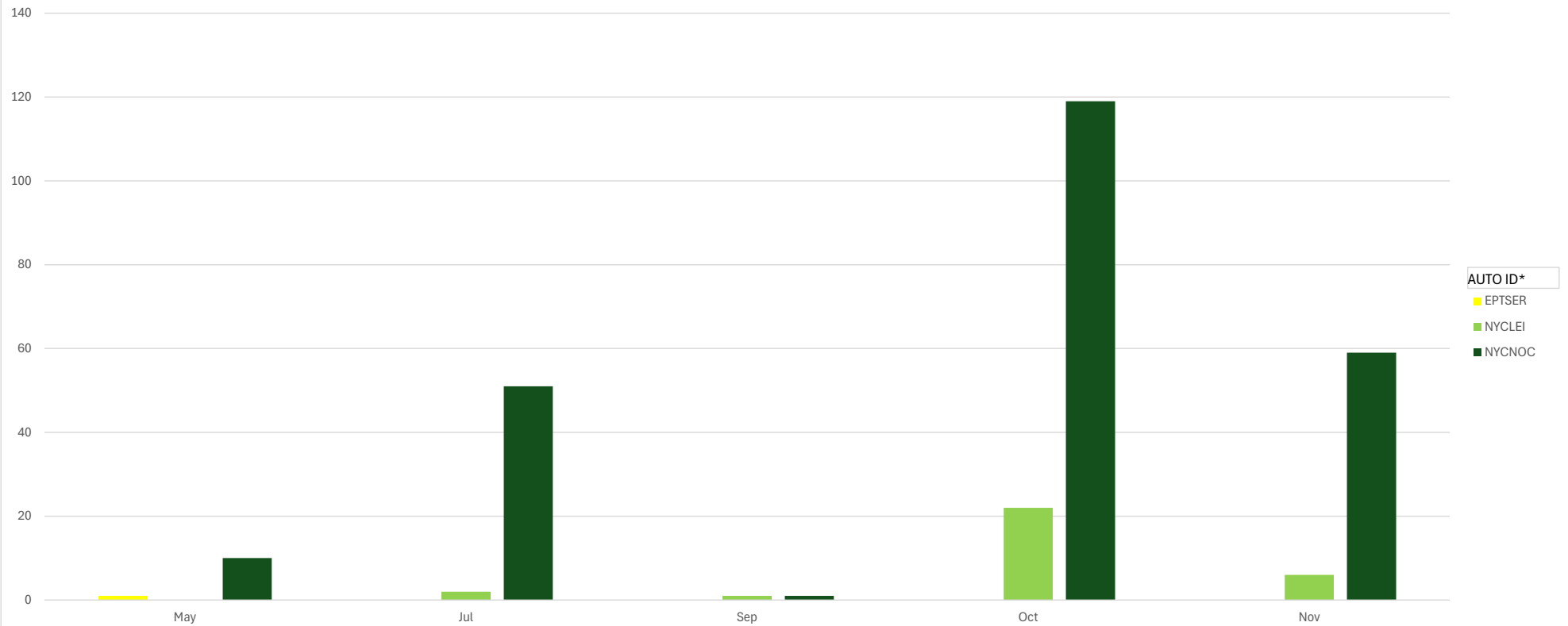
Nov

Months (DATE) DATE Hours (TIME) Minutes (TIME) Seconds (TIME) TIME



Count of AUTO ID*

Static Data East - *Nyctaloids*



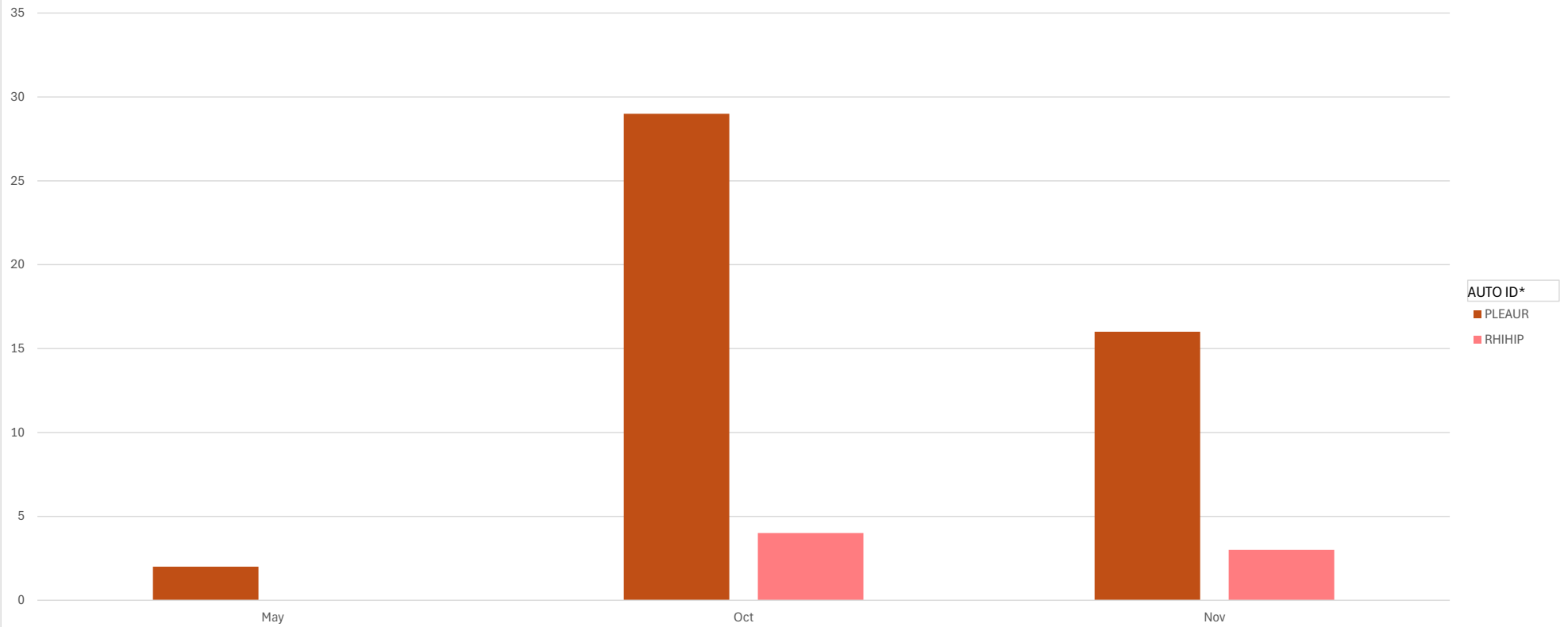
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- EPTSER
- NYCLEI
- NYCNOC

Months (DATE) DATE Hours (TIME) Minutes (TIME) Seconds (TIME) TIME

Count of AUTO ID*

Static Data East - Other Species



Months (DATE) DATE Hours (TIME) Minutes (TIME) Seconds (TIME) TIME

Count of AUTO ID*

Static Data West - All Species

10000

1000

100

10

1

May

Jun

Jul

Sep

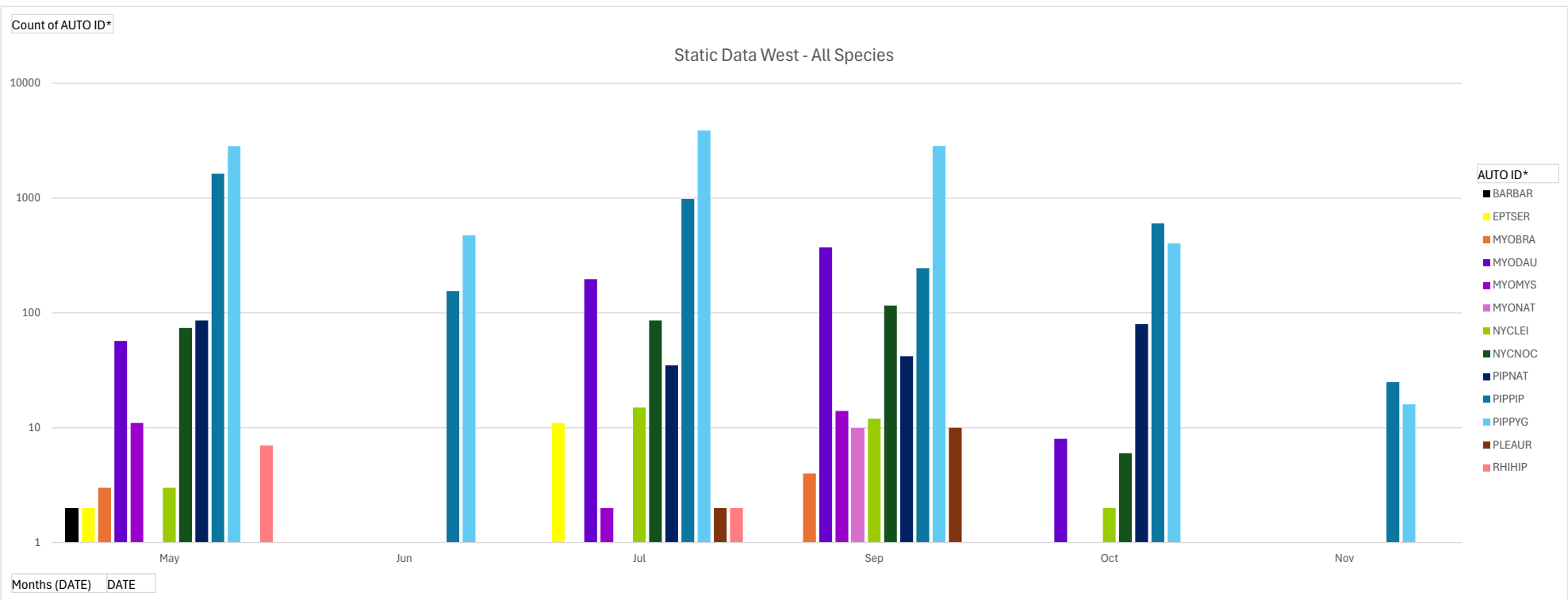
Oct

Nov

Months (DATE) DATE

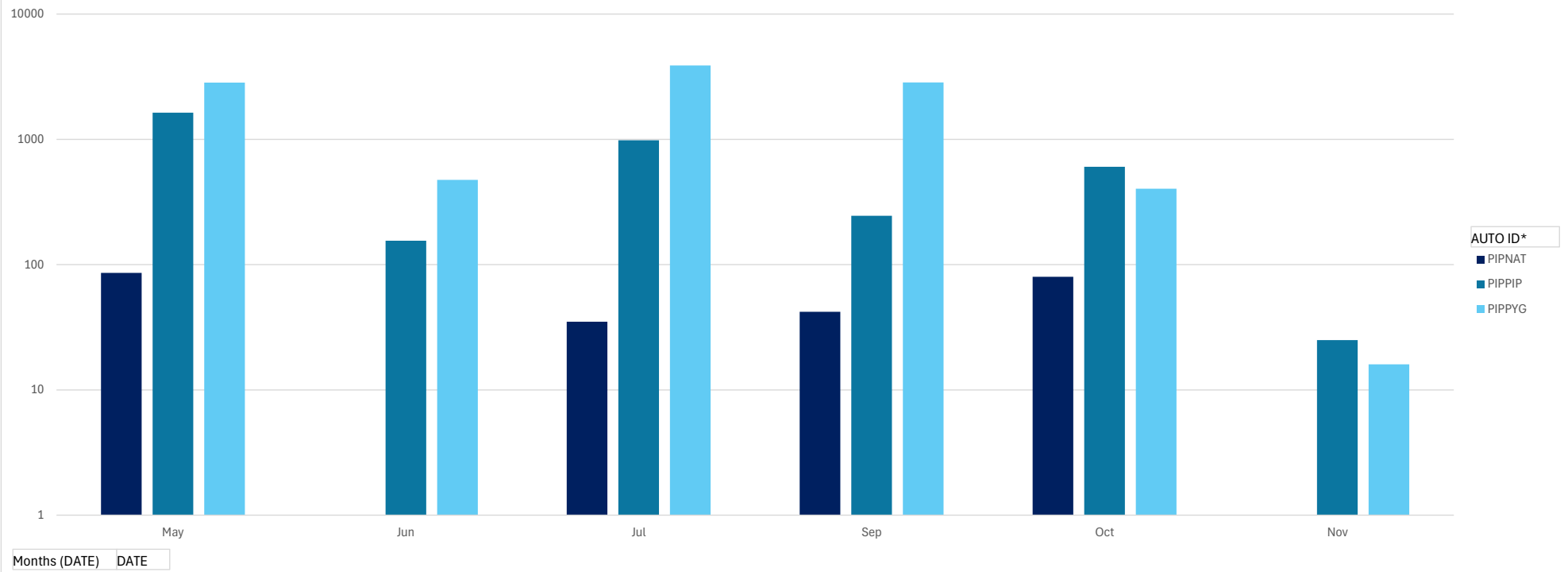
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- EPTSER
- MYOBRA
- MYODAU
- MYOMYS
- MYONAT
- NYCLEI
- NYCNOC
- PIPNAT
- PIPPIP
- PIPPYG
- PLEAUR
- RHIHIP



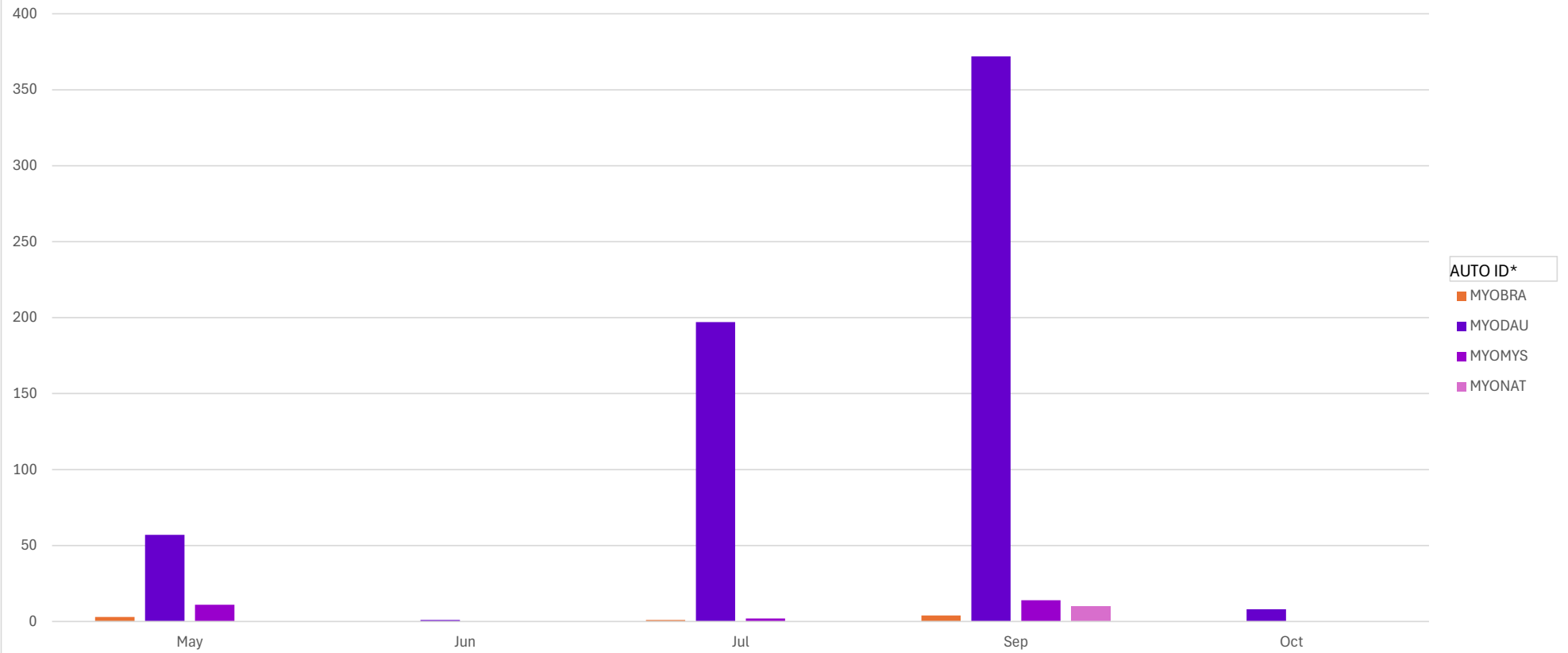
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Static Data West - *Pipistrellus*



Count of AUTO ID*

Static Data West - Myotis



AUTO ID*

- MYOBRA
- MYODAU
- MYOMYS
- MYONAT

Months (DATE) DATE

Count of AUTO ID*

Static Data West - *Nyctaloids*

1000

100

10

1

AUTO ID*

- EPTSER
- NYCLEI
- NYCNOC

May

Jun

Jul

Sep

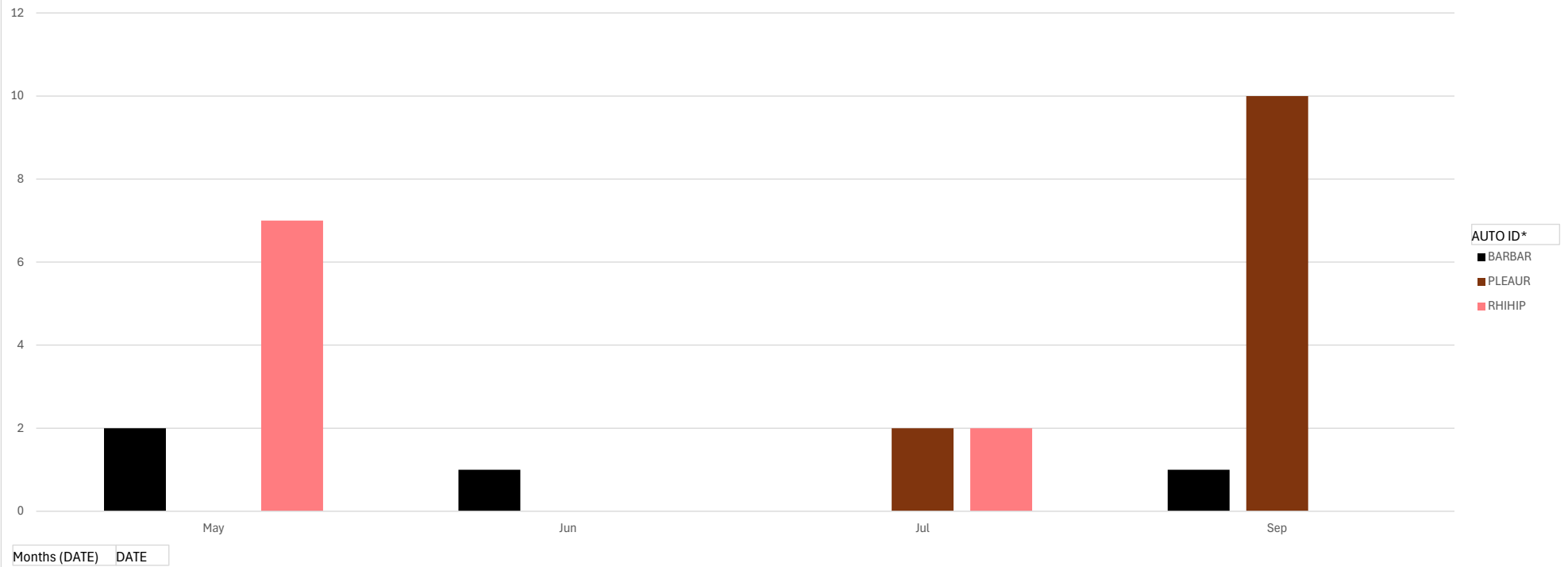
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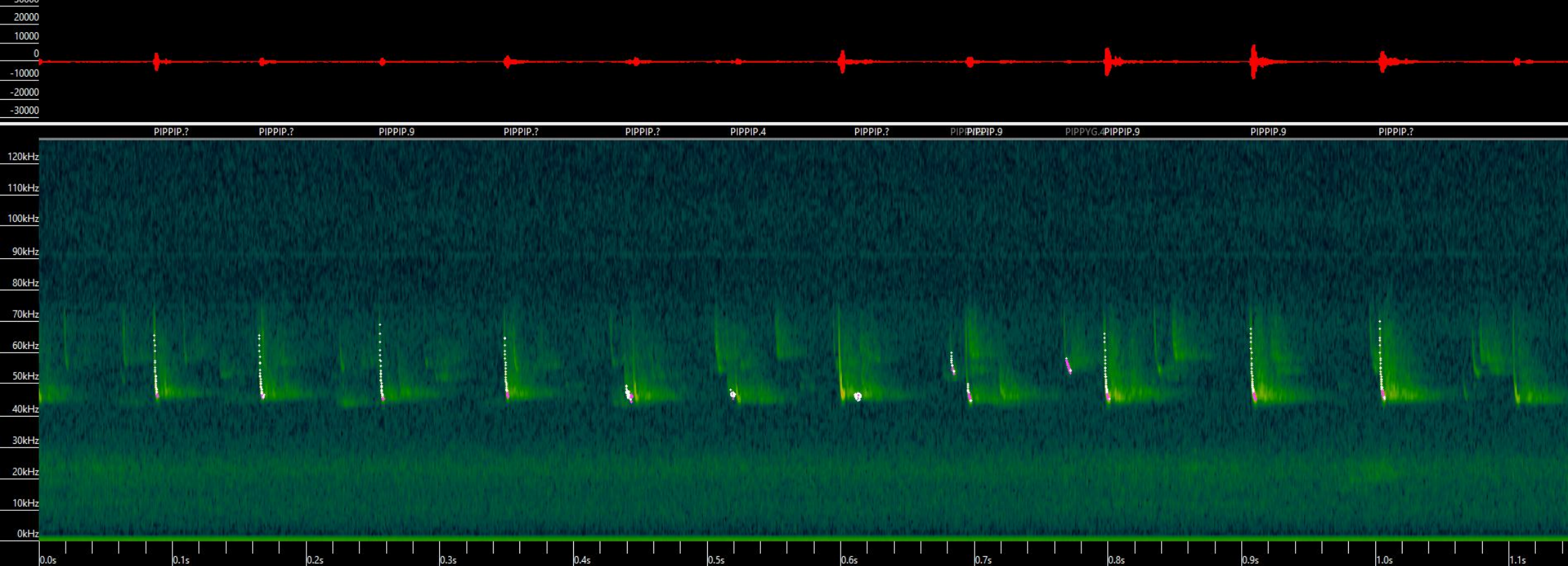
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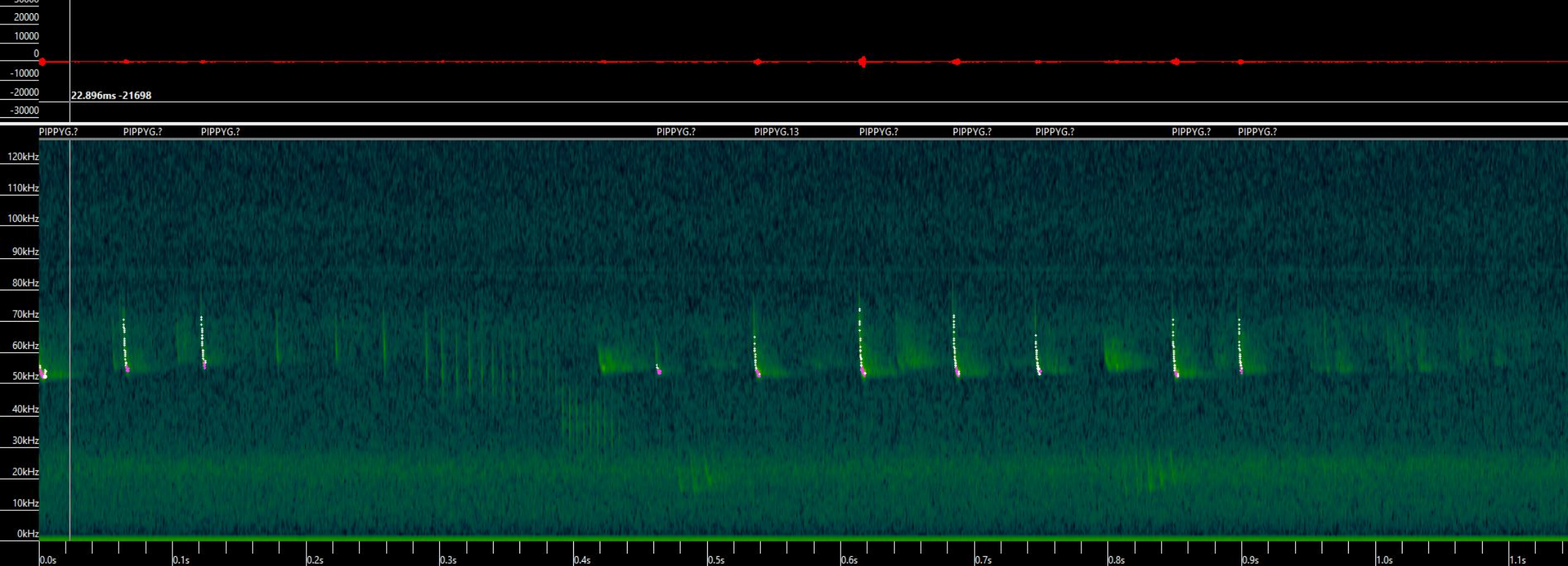


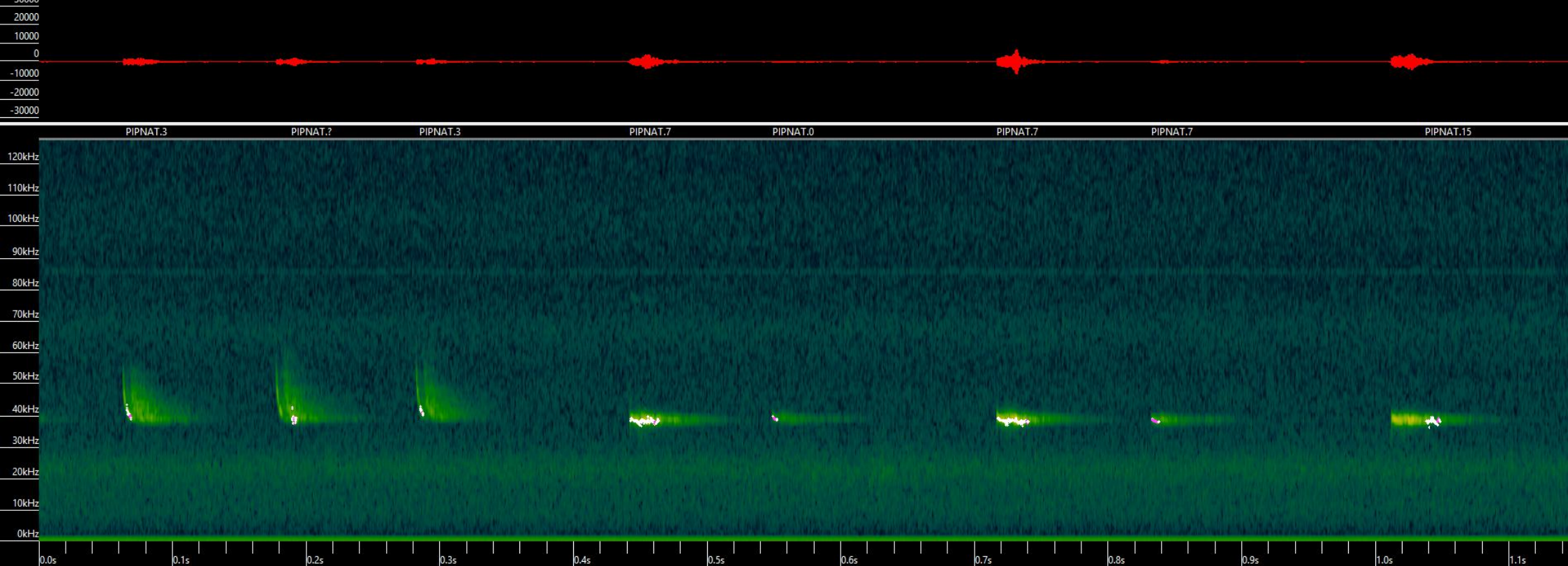
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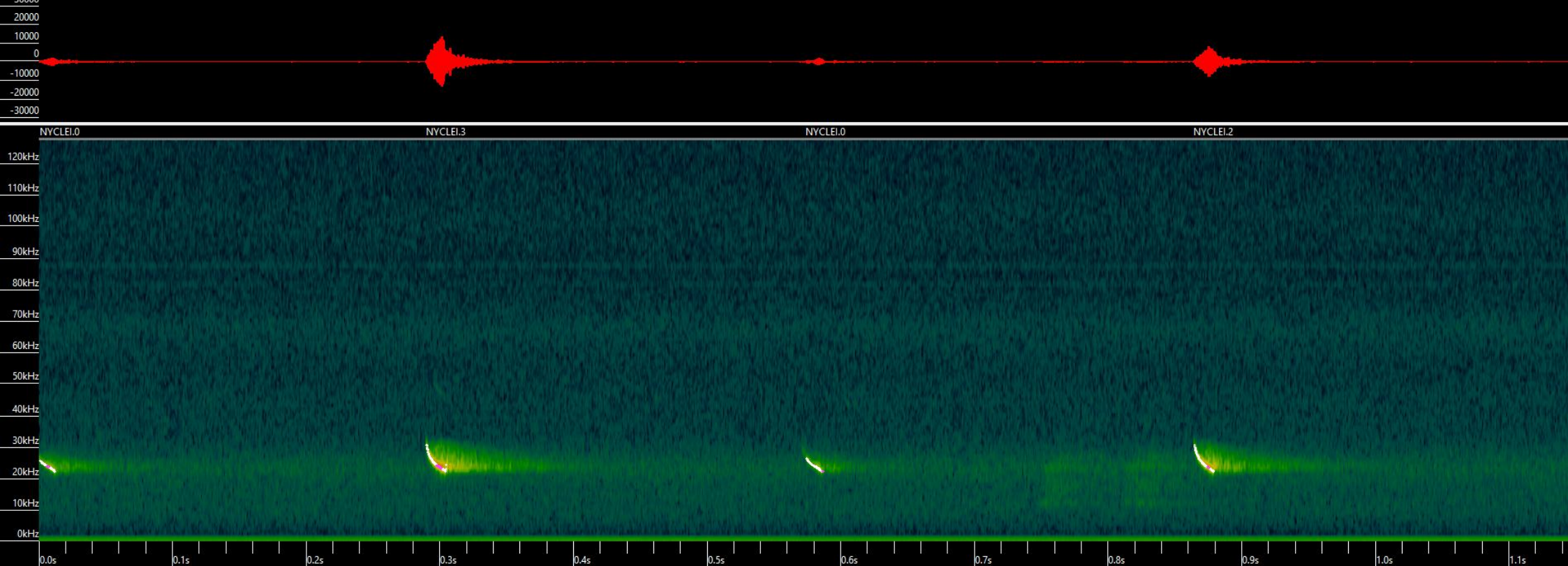
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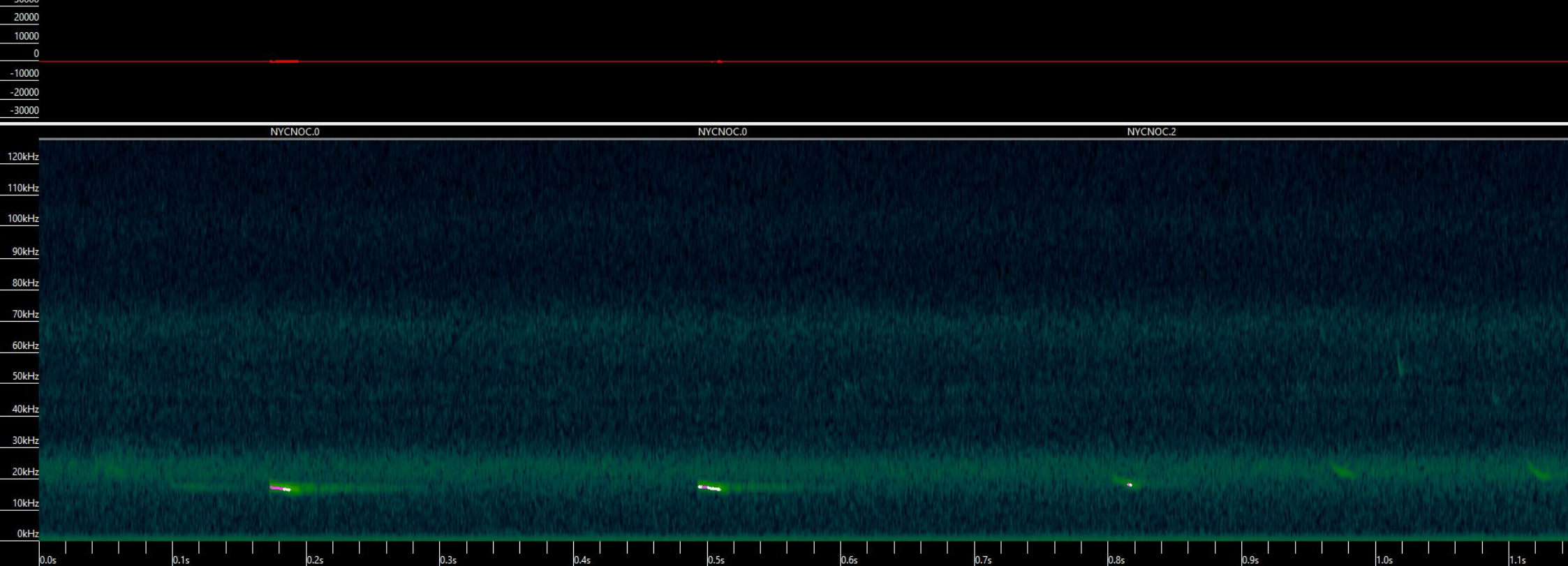


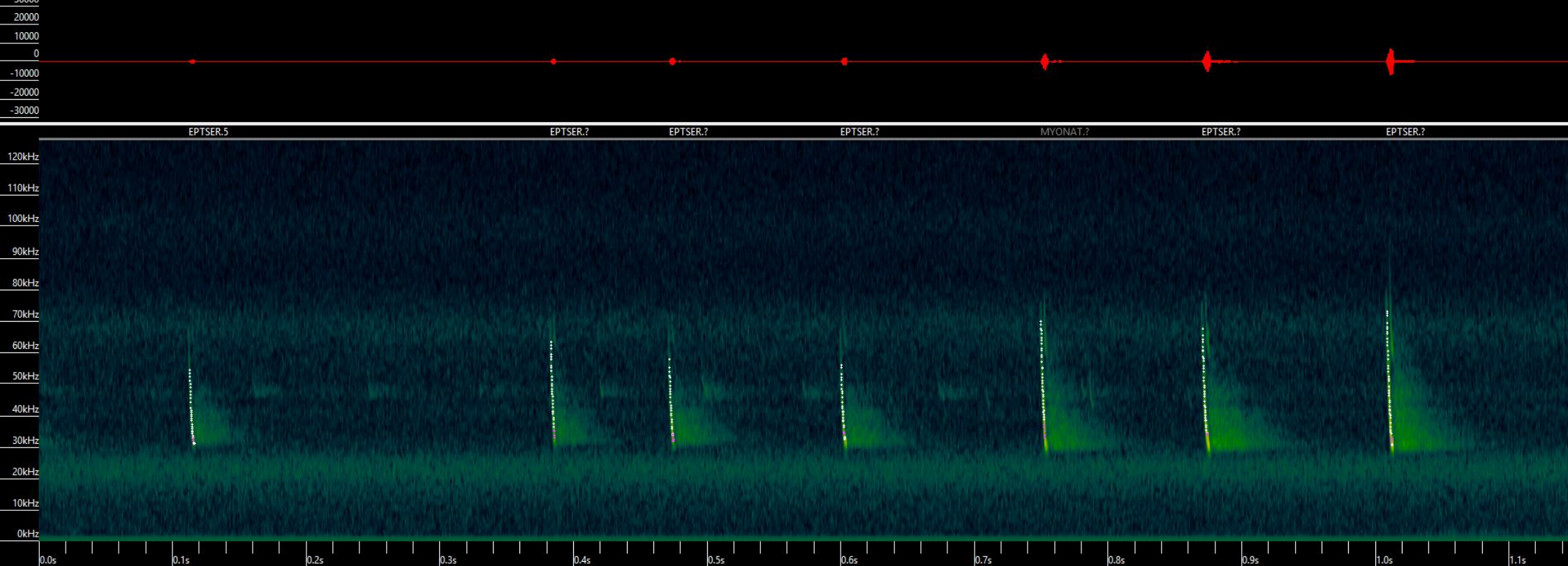


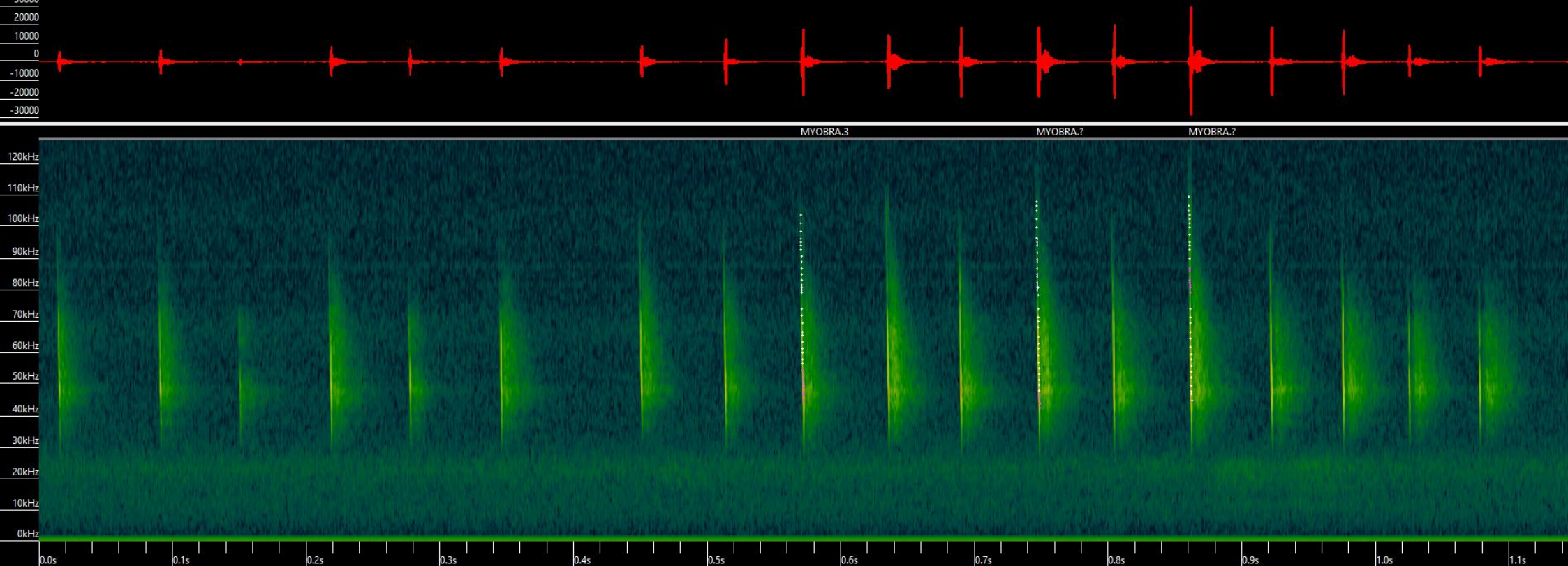


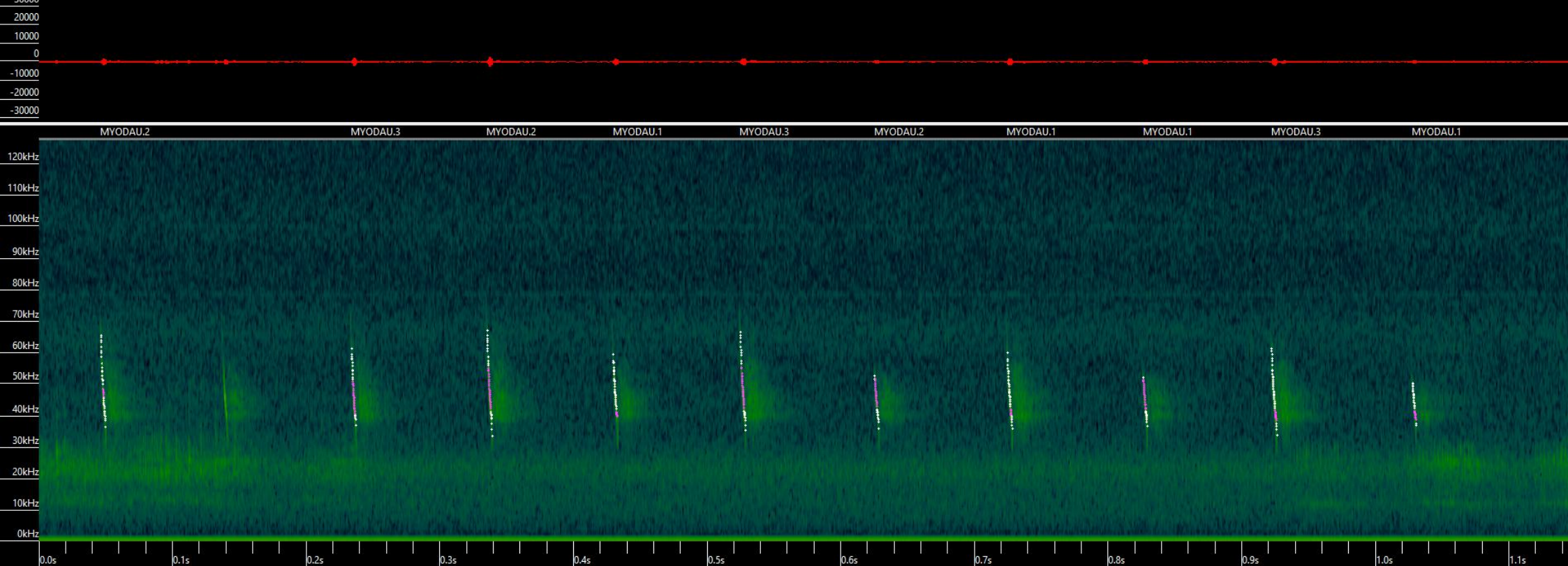


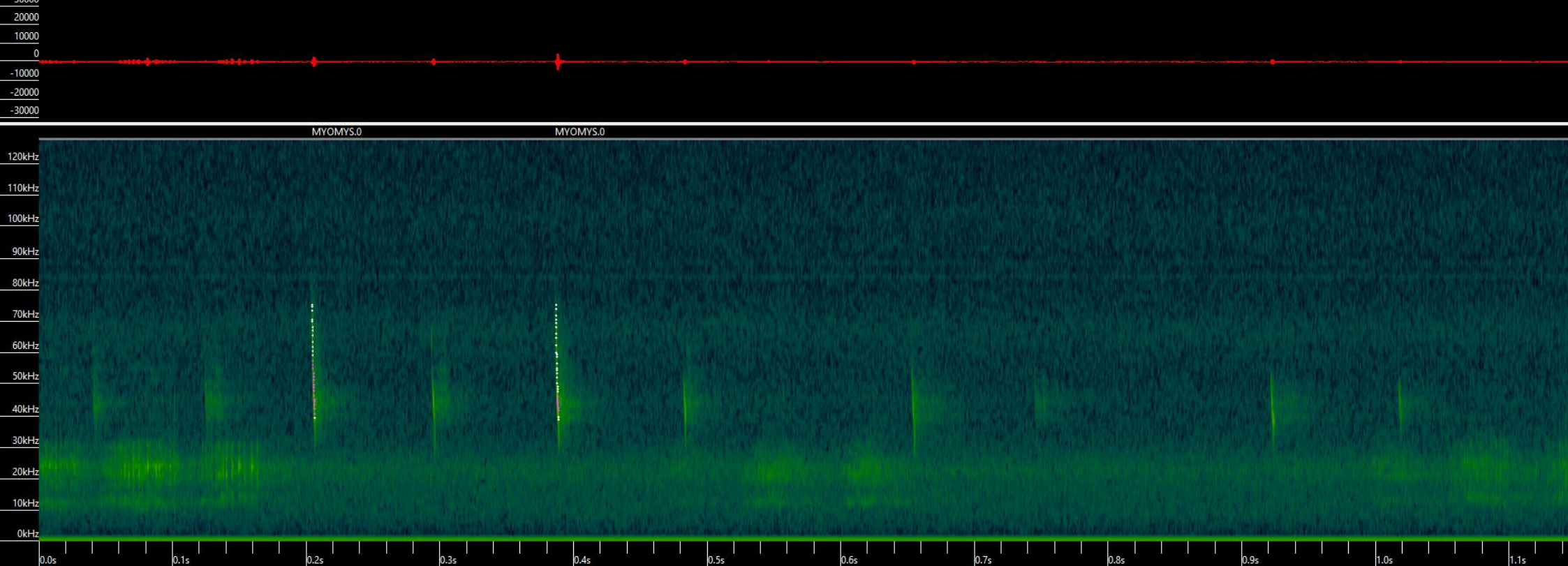


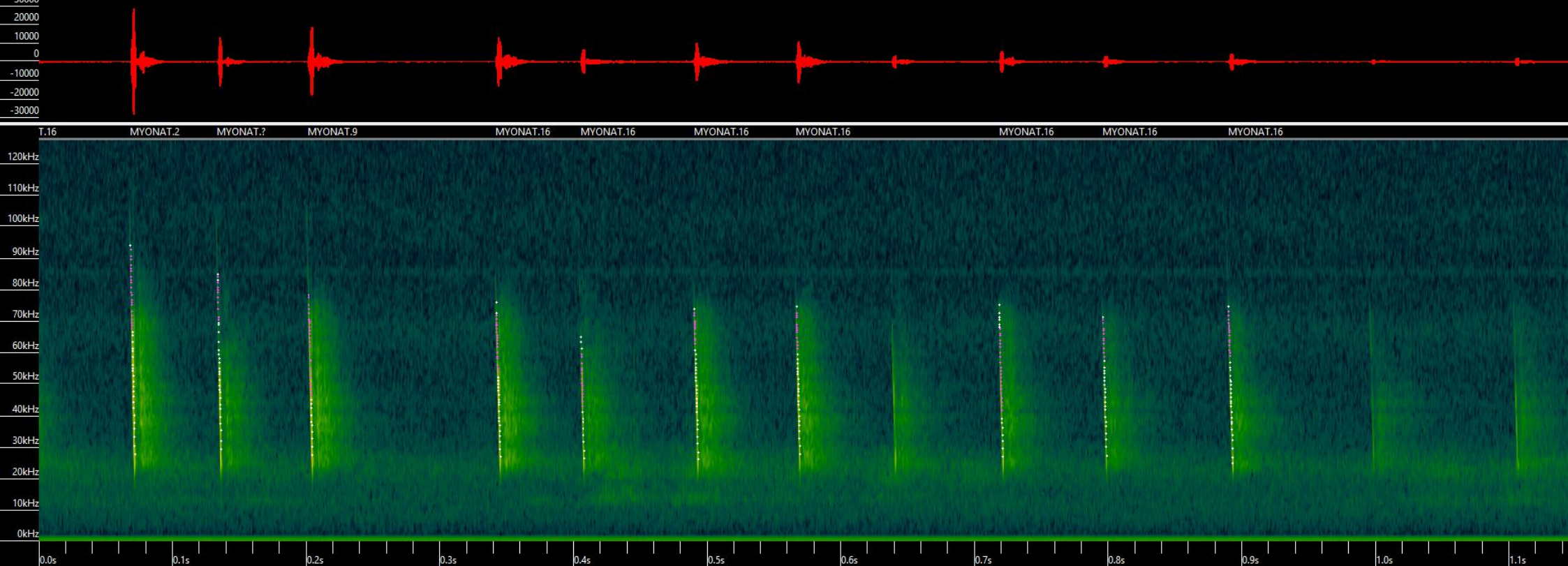


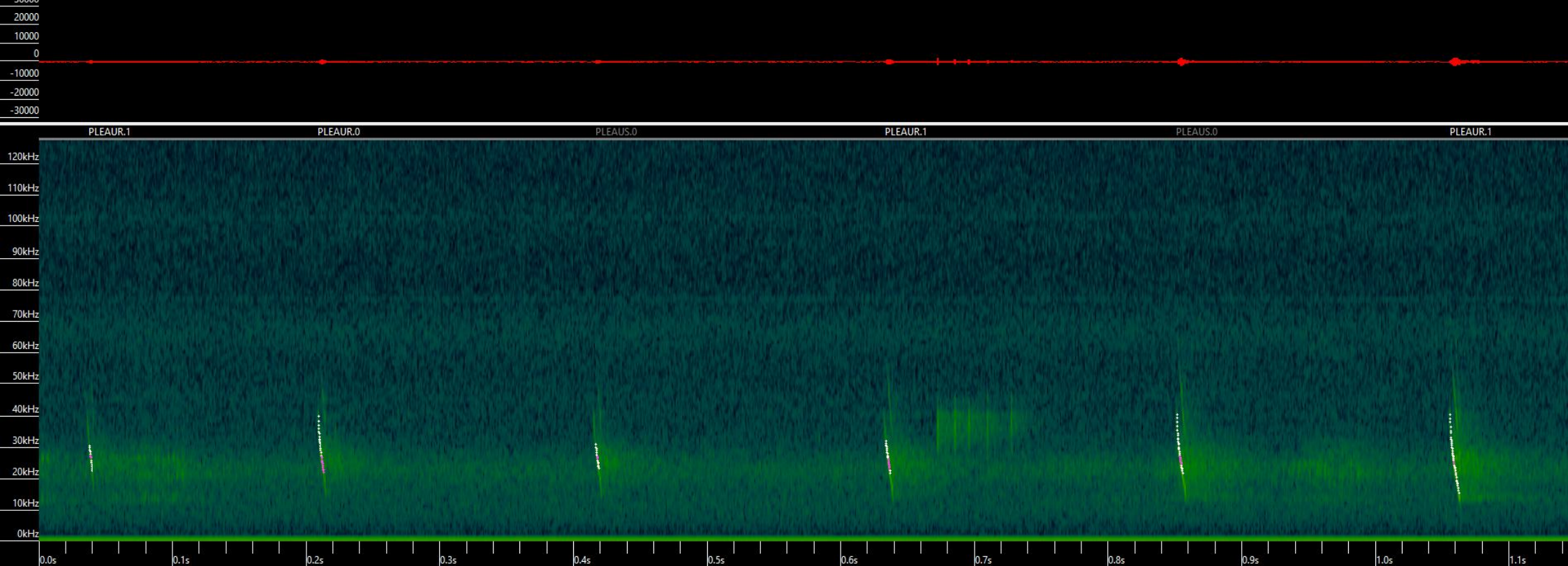


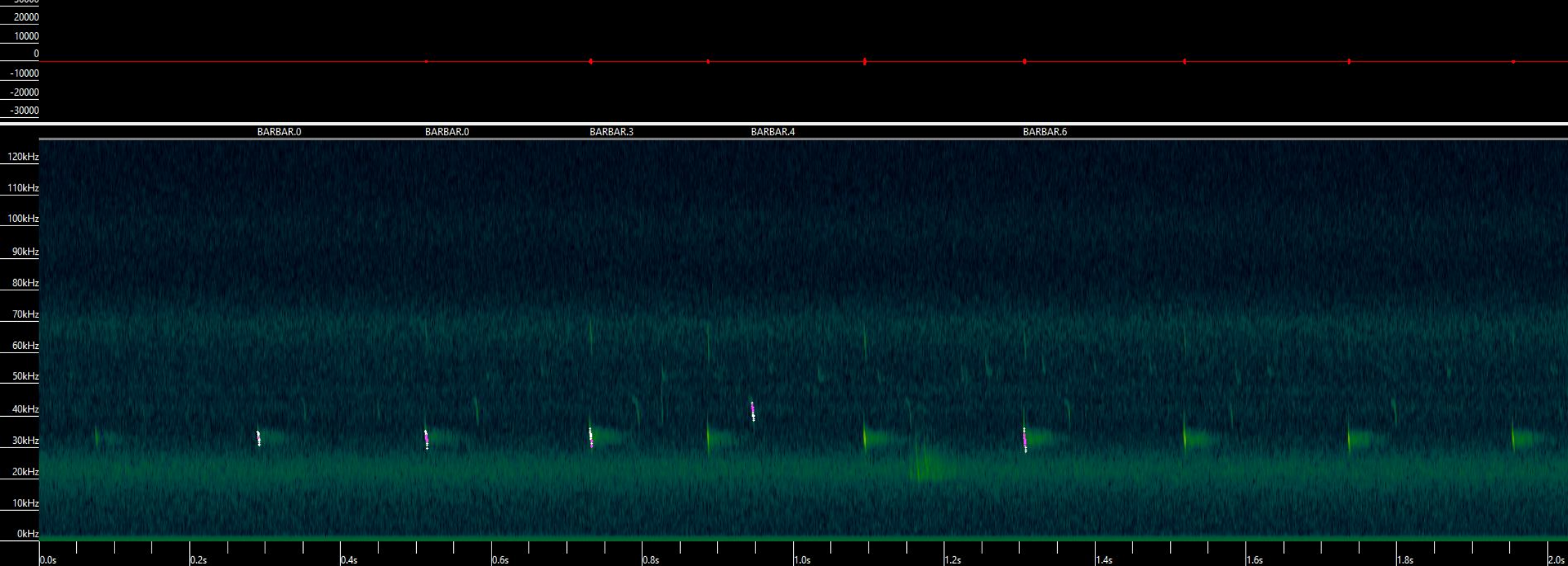


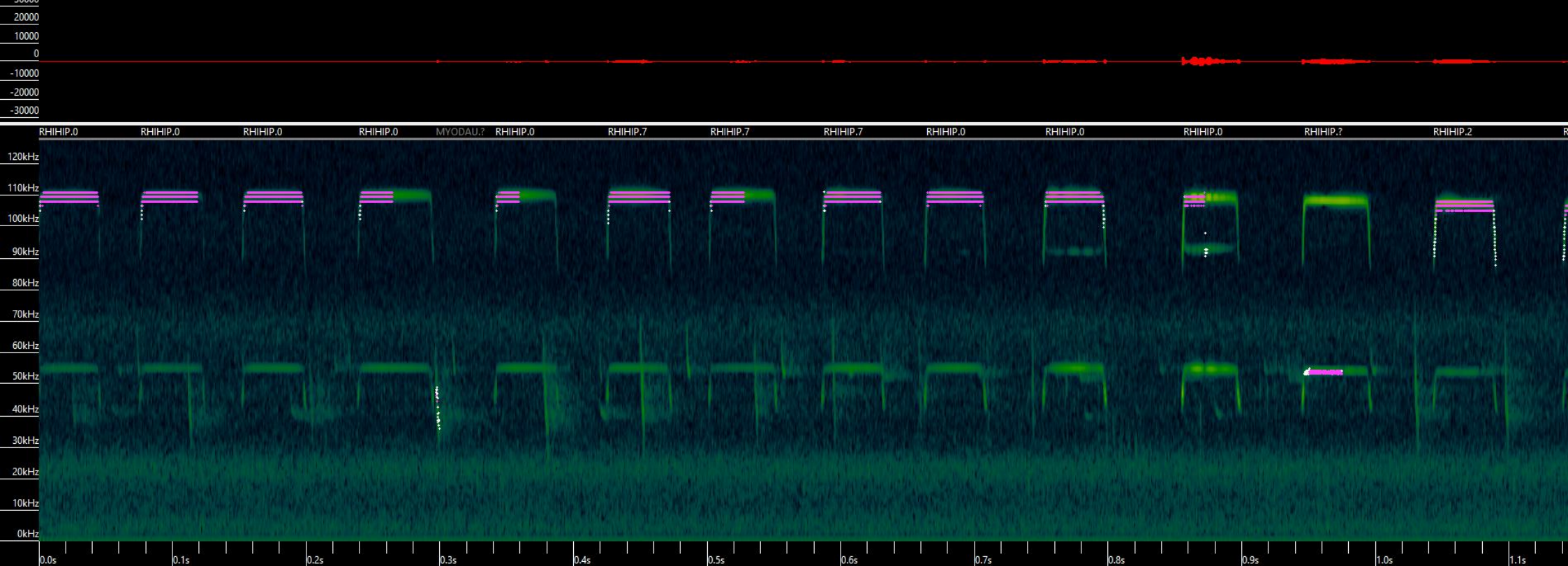












Appendix D – Breeding Bird Survey Results

Breeding Bird Survey results - The breeding status of Schedule 1 and/or Species of Conservation Concern

Species	Protection/ UK Status	Breeding Bird Survey Results and Assessment		
		Breeding Status	Description	Specific Impacts on Species
Black-headed Gull (<i>Chroicocephalus ridibundus</i>)	Amber List	Possible Breeding	On individual arriving onsite during survey 2, 4, 5 and 6. Pond onsite provides potential nesting habitat.	Yes – disturbance of active nesting birds and loss of nest sites. Minor adverse, permanent, irreversible impact.
Bullfinch (<i>Pyrrhula pyrrhula</i>)	Amber List	Possible Breeding	Two individuals onsite during survey 4, and one onsite during survey 6. Woodland and hedgerow onsite provide potential nesting habitat.	Yes – disturbance of active nesting birds and loss of nest sites. Minor adverse, permanent, irreversible impact.
Common Tern (<i>Sterna Hirundo</i>)	Amber List	Non-breeding	One individual arriving onsite during survey 1, 2 and 5. Site lacks poorly vegetated lack adjacent to water required as suitable nesting habitat for Common Tern.	None
Dunnock (<i>Prunella modularis</i>)	Amber List	Possible Breeding	Individuals singing in suitable habitat (woodland) during survey 2, 4, 5 and 6. Woodland and hedgerow onsite provide potential nesting habitat.	Yes – disturbance of active nesting birds and loss of nest sites. Minor adverse, permanent, irreversible impact.
Greenfinch (<i>Chloris chloris</i>)	Red List	Possible Breeding	Individuals singing in suitable habitat (woodland) during survey 1, 2, 3, 4 and 6. Individuals and small groups (1-2 individuals) in survey 2. Woodland and hedgerow onsite provide potential nesting habitat.	Yes – disturbance of active nesting birds and loss of nest sites. Minor adverse, permanent, irreversible impact.
Linnet (<i>Linaria cannabina</i>)	Red List UK BAP	Possible Breeding	Two individuals singing during survey 3 in suitable nesting habitat (woodland edges).	Yes – disturbance of active nesting birds and loss of nest sites. Minor adverse, permanent, irreversible impact.
Mallard (<i>Anas platyrhynchos</i>)	Amber List	Possible Breeding	Small groups of (2-6) onsite during survey 1, 2, 4, 5 and 6. Ponds and adjacent habitats provide potential nesting habitat.	Yes – disturbance of active nesting birds and loss of nest sites. Minor adverse, permanent, irreversible impact.
Song Thrush (<i>Turdus philomelos</i>)	Amber List UK BAP	Possible Breeding	One individual singing within suitable nesting habitat (woodland) during survey 1 and 6.	Yes – disturbance of active nesting birds and loss of nest sites. Minor adverse, permanent, irreversible impact.
Whitethroat (<i>Sylvia communis</i>)	Amber List	Possible Breeding	Individual singing within suitable nesting habitat (woodland edges) during survey 6.	Yes – disturbance of active nesting birds and loss of nest sites. Minor adverse, permanent, irreversible impact.

Species	Protection/ UK Status	Breeding Bird Survey Results and Assessment		
		Breeding Status	Description	Specific Impacts on Species
Willow Warbler (<i>Phylloscopus trochilus</i>)	Amber List	Possible Breeding	Individual singing within suitable nesting habitat (woodland) during survey 4.	Yes – disturbance of active nesting birds and loss of nest sites. Minor adverse, permanent, irreversible impact.
Woodpigeon (<i>Columba palumbus</i>)	Amber List	Possible Breeding	Individuals and small groups (1-5) throughout the site during survey 1, 2, 4, 5 and 6.	Yes – disturbance of active nesting birds and loss of nest sites. Minor adverse, permanent, irreversible impact.
Wren (<i>Troglodytes troglodytes</i>)	Amber List	Possible Breeding	Individuals singing along eastern, western and northern boundary in suitable nesting habitat (woodland) in survey 2, 4, 5 and 6. Individuals onsite in survey 1 and 4. Call in south east corner in survey 1 within suitable nesting habitat.	Yes – disturbance of active nesting birds and loss of nest sites. Minor adverse, permanent, irreversible impact

Breeding Bird Survey results- Other Green list species and species with 'no status'

Species	Breeding Status
Blackbird (<i>Turdus merula</i>)	Probable Breeding
Blackcap (<i>Sylvia atricapilla</i>)	Confirmed Breeding
Blue Tit (<i>Cyanistes caeruleus</i>)	Possible Breeding
Buzzard (<i>Buteo buteo</i>)	Non-breeding
Canada Goose (<i>Branta canadensis</i>)	Non-breeding
Chaffinch (<i>Fringilla coelebs</i>)	Non-breeding
Chiffchaff (<i>Phylloscopus collybita</i>)	Probable Breeding
Cormorant (<i>Phalacrocorax carbo</i>)	Non-breeding
Garden Warbler (<i>Sylvia borin</i>)	Non-breeding
Goldcrest (<i>Regulus regulus</i>)	Non-breeding
Goldfinch (<i>Carduelis carduelis</i>)	Confirmed Breeding
Great Tit (<i>Parus major</i>)	Non-breeding
Great Crested Grebe (<i>Podiceps cristatus</i>)	Probable Breeding
Great-spotted Woodpecker (<i>Dendrocopos major</i>)	Non-breeding
Green Woodpecker (<i>Picus viridis</i>)	Non-breeding
Grey Heron (<i>Ardea cinerea</i>)	Non-breeding

Species	Breeding Status
Long-tailed Tit (<i>Aegithalos caudatus</i>)	Probable Breeding
Mute Swan (<i>Cygnus olor</i>)	Non-breeding
Red-crested Pochard (<i>Netta rufina</i>)	Non-breeding
Robin (<i>Erithacus rubecula</i>)	Possible Breeding
Tufted Duck (<i>Aythya fuligula</i>)	Non-breeding

Appendix E – Wintering Bird Survey Results

	Survey 1 18.10.24	Survey 2 31.10.24	Survey 3 11.11.24	Survey 4 17.11.24	Survey 5 17.12.24	Survey 6 31.12.24	Survey 7 08.01.25	Survey 8 30.01.25	Survey 9 18.02.25	Survey 10 27.02.25	Survey 11 11.03.25	Survey 12 25.03.25	Peak Count
Black-headed Gull	(3*)	(12*)	(7*)	(6*)	(2*)	2	1 (2*)		(1*)	(3*)	(3*)	(2*)	1(12*)
Bullfinch												1	1
Common Gull	(1*)												(1*)
Dunnock	3	5	3	2	1	3	4	1	1		1	2	5
Fieldfare		1	3	2	4		2						4
Gadwall									1				1
Great Black-backed Gull				(1*)									(1*)
Herring Gull			(1*)	(2*)	(1*)								(2*)
Kestrel						(1*)							(1*)
Lapwing				(2*)									(2*)
Lesser Black-backed Gull						(1*)	(1*)	1	(1*)			(1*)	1(1*)
Linnet	(6*)		1	(1*)									1(6*)
Mallard	1		2	5					1			15	15
Moorhen									2				2
Redwing		10		3	7		6		1				10
Song Thrush			1					1	2				2
Woodpigeon	6	5 (6*)	8	17	22	13	23	5	10	10	18	5	23(6*)
Wren	3	5	2	2	2	3	2	3	1	4	3	3	5

Summary of Other Notable Species Results

Bird Species	Legislation / Status				Peak Count	Fly-over only?	Importance Threshold ¹	
	Sch 1	UK BAP	Red List	Amber List			National	International
Black-headed Gull				✓	1(12*)		22,000	20,000
Bullfinch		✓		✓	1		N/A	N/A
Common Gull				✓	(1*)	✓	7,000	16,400
Dunnock				✓	5		N/A	N/A
Fieldfare	✓		✓		4		N/A	N/A
Gadwall				✓	1		310	1,400
Great Black-backed Gull				✓	(1*)	✓	760	860
Herring Gull		✓	✓		(2*)	✓	7,300	7,600
Kestrel				✓	(1*)	✓	N/A	N/A
Lapwing		✓	✓		(2*)	✓	6,200	20,000
Lesser Black-backed Gull				✓	1(1*)		1,200	4,900
Linnet		✓	✓		1(6*)		N/A	N/A
Mallard				✓	15		N/A	N/A
Moorhen				✓	2		3,000	20,000
Redwing	✓			✓	10		N/A	N/A
Song Thrush		✓		✓	2		N/A	N/A
Woodpigeon				✓	23(6*)		N/A	N/A
Wren				✓	5		N/A	N/A

(*) recorded flying high over the site

¹Importance thresholds defined by BTO (BTO, 2020) as 1% of national and international populations. Those species which are not wetland species do not have importance thresholds reported.

Peak counts reported include maximum counts of species observed within site and surrounds, and those observed flying high over the site only (even when on separate dates)

Appendix F – Reptile Survey Results

Site area (Ha): 12.8 No. Refugia used: 50 Description of Refugia: 45 flat 0.5x0.5, 5 corrug 0.5x0.5
 Suitable habitat (Ha): 4.51 No. Refugia per Ha: 11 Time to bed down: 7 days

Survey	Date	Common Lizard				Slow-worm				Grass Snake				Adder				Other	
		Male	Female	Juvenile	Adult Total	Male	Female	Juvenile	Adult Total	Male	Female	Juvenile	Adult Total	Male	Female	Juvenile	Adult Total	Total	Description
1	08.05.25	0	0	0	0	0	0	0	0	1	3	0	4	0	0	0	0	0	-
2	21.05.25	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1 x Vole
3	27.05.25	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	-
4	29.05.25	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	-
5	11.06.25	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	0	1 x Vole 1x Common Toad
6	02.07.25	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	-
7	04.07.25	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	-
8	10.07.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
9	02.08.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
10	05.09.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
11	10.09.25	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	-
12	19.09.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
13	22.09.25	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	-
14	23.09.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
15	09.10.25	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	-
Total		0	0	0	0	0	0	0	0	1	4	14	19	0	0	0	0	0	

Maximum Count	0		Maximum Count	0		Maximum Count	4		Maximum Count	0
Population size	0.00		Population size	0.00		Population size	3.61		Population size	0.00
Population score	0.00		Population score	0.00		Population score	1.00		Population score	0.00

Appendix G – Legislation and National Planning Policy

Wildlife legislation and policy relevant (or potentially relevant pending further survey) to the proposed works, based on the findings of the desk study and field survey are set out below. This legal information is a summary only, and the original legal documents should be consulted for definitive information.

Legislation Protection Afforded to Sites/Habitats that could Potentially be Affected by the Proposed Works

Designated Site/Habitat	Legal Status
SSSI	SSSIs are the national suite of sites providing statutory protection for the best examples of the UK's flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs have been re-notified under the Wildlife and Countryside Act 1981 (as amended). Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000.
Hedgerows	Hedgerows that meet certain criteria are protected by The Hedgerows Regulations 1997, under which it is an offence to remove or destroy such hedgerows without permission from the Local Planning Authority.

Legislation Protection Afforded to Species that could Potentially be Affected by the Proposed Works

Species	Legal Status
European Protected	
Bats, Dormouse, GCN	These animal species and their breeding sites or resting places are protected under Regulation 41 of the Conservation of Habitats and Species (Amendment) Regulations 2012, which makes it illegal to: - Deliberately capture, injure or kill any such animal or to deliberately take or destroy their eggs; - Deliberately disturb such an animal; - Damage or destroy a breeding site or resting place of such an animal. European Protected Species (EPS) licences can be granted by Natural England in respect of development to permit activities that would otherwise be unlawful under the Conservation Regulations, providing that the following 3 tests (set out in the EC Habitats Directive) are passed: - The development is for reasons of overriding public interest; - There is no satisfactory alternative; and - The favourable conservation status of the species concerned will be maintained and/or enhanced. Under Regulation 9(5) of the Conservation Regulations, Planning Authorities have a legal duty to 'have regard to the requirements of the EC Habitats Directive in the exercise of their functions'. This means that they must consider the above 3 tests when determining whether Planning Permission should be granted for developments likely to cause an offence under the Conservation

	Regulations. As a consequence, Planning Applications for such developments must demonstrate that the 3 tests will be passed.
Nationally Protected	
Bats, Dormouse, GCN	These animals receive full protection under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to: • Intentionally kill, injure or take any such animal; • Intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any such animal; and • Intentionally or recklessly disturb such animals while they occupy a place used for shelter or protection.
Breeding Birds	All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to: • Intentionally kill, injure or take any wild bird; • Take, damage or destroy the nest (whilst being built or in use) or eggs of any wild bird.
Common Reptiles	These animals receive limited protection under The Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal to intentionally kill or injure any such animal.
Badger	The Protection of Badgers Act 1992 makes it illegal to wilfully kill or injure a Badger, or attempt to do so and also make it illegal to intentionally or recklessly interfere with a Badger sett. This includes damaging or destroying a sett, obstructing access to a sett and disturbing a Badger while it is occupying a sett. Licences can be granted to permit sett closure and/or disturbance between July and November inclusive.
Invasive Species	
Invasive Fauna	The Wildlife and Countryside Act 1981 (as amended) contains measures for preventing the establishment of non-native species which may be detrimental to native wildlife, prohibiting the release of animals and planting of plants listed in Schedule 9 of the Act.

Section 40 of the Natural Environment and Rural Communities Act 2006 (the NERC Act) places a legal duty on public bodies, including planning authorities, to 'have regard' to the conservation of biodiversity when carrying out their normal functions, which includes consideration of planning applications.

In compliance with Section 41 of the NERC Act, the Secretary of State has published a list of species and habitats considered to be of principal importance for conserving biodiversity in England under the UK Post-2010 Biodiversity Framework. This is known as the list of Habitats and Species of Principal Importance (HPI/SPI), of which there are 56 habitats and 943 species. The HPI/SPI list is used to guide planning authorities in implementing their duty under the NERC Act.

National Planning Policy

The NPPF (2023) set out the Government's planning policies for England and how these are expected to be applied. At the heart of the NPPF is a presumption in favour of sustainable development. The NPPF states that:

'To protect and enhance biodiversity and geodiversity, plans should:

- Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping-stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.'

'When determining planning applications, local planning authorities should apply the following principles:

- if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists;
- development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate 'The following should be given the same protection as European sites:
 - potential Special Protection Areas (SPA) and possible Special Areas of Conservation (SAC);
 - listed of proposed Ramsar Sites; and,
 - site identified, or required, as compensatory measures for adverse effects on European sites, potential SPAs, possible SACs, and listed or proposed Ramsar sites.'

The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on European sites (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.'



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Gloucestershire
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Sheffield S36 2AA
Tel: 0114 321 5151

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Ducie House
Ducie Street
Manchester
M1 2JW
Tel: 0161 413 6444

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