



**Studley Grange Biffa Site,
Hay Lane,
Wroughton,
SN4 9QT**

Phase 2 Bat, Bird and Newt Report

Report Number: 0834

Issue Number: 04

Date of Issue: 27th March 2026

Prepared by: Angus Layton

Reviewed by: Davog McCloskey

Peach Ecology
9 Elizabeth Road
Wilton
Wiltshire
England
SP2 0JH

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1.0 Summary

Bats

The Phase 2 bat surveys at the Biffa site on Hay Lane, Wroughton recorded a diverse assemblage of bat species using the landscape, with activity strongly focused around the woodland block, ponds, farmhouse roost and the Wilts & Berks Canal. These features form the core ecological resources for foraging and commuting, supporting species such as common and soprano pipistrelle, *Myotis* spp., noctule, brown long-eared bat (BLE), and both lesser and greater horseshoe bats. The farmhouse supports a BLE maternity roost and a lesser horseshoe day roost, confirmed during the initial visit and early-night activity recorded at nearby static detectors.

Across the six Night-time Bat Walks, activity was consistently greatest along linear vegetated features, particularly the western woodland edge and its connecting hedgerow, while the interior of the development field supported only low levels of use. This pattern was reinforced by the static detector dataset, which recorded highest activity at Positions 1, 4 and 5 - locations associated with boundary vegetation, woodland edges and the farmhouse roost complex. In contrast, the central field proposed for development supported comparatively limited activity and no roosting features.

The proposed solar array avoids the key roosting and foraging areas, with the principal ecological risk arising from potential impacts on the western hedgerow, which forms part of the connective network between the woodland and canal corridors. With a 10 m buffer, a dark corridor, and sensitive lighting design, these risks can be effectively mitigated. Bat-friendly lighting will be used and the dark corridors around the site will be maintained dark, below 1lux. Lighting will be designed in accordance with the Bat Conservation Trust Guidance Note 08/23: Bats and Artificial Lighting at Night. Grassland enhancement within and around the array area presents an opportunity to increase foraging value for generalist species. Further enhancements including woodland management, hedgerow improvement, refined grazing regimes, pond management and protection of the farmhouse roost offer additional potential to strengthen the site's ecological function.

Overall, the development is not expected to result in significant impacts on bats, provided the recommended mitigation and enhancement measures are implemented. The survey evidence demonstrates that the key bat features lie outside the development footprint and that the proposed scheme can be delivered while maintaining ecological connectivity and supporting opportunities for biodiversity enhancement.

Birds

A breeding bird survey was instructed due to the potential impacts on birds and their nesting habitats associated with the solar PV scheme.

The breeding bird survey was designed to document all species using the site during the core breeding period, assign breeding status (possible, probable, confirmed) using standard evidence and map registrations across six visits to infer territory locations that would provide a robust, decision-grade baseline for the proposed solar PV scheme.

To ensure consistency and provide a comprehensive snapshot of the bird assemblage the survey area comprised of the original red-line boundary over the wider site. A systematic walking route ensured full coverage of internal fields, all linear features and vantage points with views across larger compartments.

Six breeding-season visits (Apr–Jul 2025) recorded 41 species, with mapped territories concentrated along the northern hedgerow/woodland belt. Under the revised red line (one field

of Modified Grassland), there is no direct loss of territories: Buzzard (nest ~500 m), Tawny Owl and Green Woodpecker (~350 m) are confirmed off-site; Skylark territories lie outside the boundary; a small rookery is present nearby.

With a CEMP (seasonal timing, quiet corridor near rookery) and habitat management (diverse, invertebrate-rich sward; buffered boundaries), significant adverse effects are unlikely and residual effects are predicted neutral to minor beneficial for edge-associated passerines.

Great Crested Newts

The site lies within the Naturespace Partnership Amber Risk Zone for Great Crested Newts, No ponds were present on site within the red line boundary. The wider Biffa site includes ponds, a ditch network and areas of seasonally wet grassland and rough marginal habitat, which may support foraging or dispersing amphibians. Six ponds within 1km were surveyed in total for eDNA (Figure 11) and three of these were positive for Great Crested Newts, these were all on Wiltshire Wildlife Trust land nearly 1km to the west, surrounded by optimal GCN habitat and separated by a road and grazed fields from the site.

The distance between the site and the nearest positive record for GCN, and the low levels of disturbance during construction means that the impact from the solar panels would be low to negligible in the absence of mitigation. There is no cover in areas impacted by the proposals, the field is grazed. There is no need for a District Level Licence. With the habitat management improvements there will be improvements in commuting and foraging habitat due to the more diverse sward and improved grassland management. The grassland on site should be maintained short prior to the works being undertaken. With the habitat management improvements there will be improvements in commuting and foraging habitat due to the more diverse sward and improved grassland management.

2.0 Introduction

Background

- 2.1 Peach Ecology was commissioned in March 2025 to undertake a suite of Phase 2 bat, bird and great crested newt surveys at land south of the M4 near Blagrove, Swindon (central Grid Reference: SU 120 820) (Appendix A and B) to inform a planning application for a proposed ground-mounted solar photovoltaic (PV) array. The layout of the proposed development is shown in Appendix C.

Bats

- 2.2 The works aim to determine the presence, status and conservation significance of bat roosts within the on-site buildings and trees, and to evaluate the site's use by foraging and commuting bats.
- 2.3 The surveys have been undertaken in line with current professional standards including Bat Surveys for Professional Ecologists: Good Practice Guidelines (Bat Conservation Trust, 2023) and the CIEEM Guidelines for Ecological Report Writing (2017), ensuring that the findings presented here meet the expectations of Swindon Borough Council as the Local Planning Authority.
- 2.4 The purpose of the Phase 2 bat surveys is to:
- Establish the presence or likely absence of roosting bats within buildings and trees identified during the PEA;
 - Determine roost type, status and species composition where roosts are present;
 - Assess patterns of bat activity across the site, including commuting routes and foraging hotspots.
 - Evaluate the ecological importance of bat features in the context of the site and wider landscape; and
 - Provide proportionate impact assessment, mitigation, and enhancement recommendations to support the proposed development.

Birds

- 2.5 The surveys were undertaken in accordance with current good practice guidance, including the Bird Survey Guidelines and the CIEEM Guidelines for Ecological Report Writing (CIEEM, 2017). The purpose of the surveys was to establish the presence, abundance, and breeding status of bird species within and immediately adjacent to the site, in order to evaluate the site's importance for breeding birds and to inform the ecological impact assessment for the proposed solar farm.
- 2.6 This report presents the findings of the breeding bird surveys conducted between April and July 2025, with six visits completed during the core breeding season. The objectives of the assessment were to:
- Identify bird species using the site and assess their breeding status (possible, probable, or confirmed breeder);
 - Evaluate the relative importance of the site for breeding birds at a local and district scale;

- Assess potential impacts of the proposed development on breeding bird populations; and
- Provide proportionate mitigation, compensation, and enhancement measures to ensure compliance with relevant legislation and policy.

Great Crested Newts

- 2.7 The purpose of the surveys was to establish the presence of Great Crested Newts in nearby ponds to determine appropriate mitigation and potential licensing issues.

Description of site and surrounding area

- 2.8 The wider farmland site comprises a series of sheep-grazed improved grassland fields bounded by mature hedgerows, occasional trees, and a young woodland strip, with a number of derelict farm buildings. The area for the solar panels is Modified Grassland.
- 2.9 The surrounding area is characterised by a mixture of arable farmland and permanent pasture to the west and east, industrial and commercial development to the northeast, and the M4 motorway forming a significant linear boundary to the north. To the south the site is bordered by the Wilts & Berks Canal with a poplar plantation on the far bank. This context influences ecological connectivity, as the southern and western boundaries remain relatively permeable to wildlife, while the motorway and industrial areas pose partial barriers to movement.

3.0 Methodology

Bats

Overview

- 3.1 The Phase 2 bat surveys comprised a combination of monthly Night-time Bat Walks (NBWs) and static detector monitoring, designed to generate a robust dataset on bat activity, commuting routes, and roost association across the Biffa site at Hay Lane, Wroughton. Methods followed Bat Conservation Trust (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition, 2023).
- 3.2 The survey programme was informed by the Preliminary Ecological Assessment, which identified high-quality bat habitat, including a *Plecotus auritus* (brown long-eared bat or BLE) maternity roost and a *Rhinolophus hipposideros* (lesser horseshoe bat or LHS) day roost within the abandoned farmhouse, as well as mature trees, woodland belts, hedgerows, ponds, and several proposed access and development footprints. Because of these sensitivities, survey effort was distributed to capture both landscape-scale movement and fine-scale roost context.

Nighttime Bat Walks (NBWs)

- 3.3 A total of six NBWs were completed (Table 1) across the active bat season covering spring, peak summer, late summer dispersal, and autumn activity periods, ensuring representation of seasonal variation in species assemblage and behaviour.

Date	Surveyor	Equipment	Temperature (°C)	Cloud cover (%)	Rain	Wind (Beaufort)
17/05/2025	Angus Layton	Elekon Batlogger M	10 – 19	0-33%	None	1-3
23/06/2025	Angus Layton	Elekon Batlogger M	14 – 19	0-33%	None	1-3
08/07/2025	Angus Layton	Elekon Batlogger M2	12 – 18	34-66%	None	1-3
25/08/2025	Angus Layton	Elekon Batlogger M2	17 – 20	34-66%	None	1-3
20/09/2025	Angus Layton	Elekon Batlogger M2	13 – 17	0-33%	None	1-3
09/10/2025	Angus Layton	Elekon Batlogger M2	10 – 14	0-33%	None	1-3

Table 1: Summarises the conditions for all six NBW surveys

- 3.4 Each walk followed a fixed transect route (Figure 1) that traversed the woodland blocks and hedgerow corridors forming the primary commuting network, crossed the open fields previously scoped for solar installation, and tracked the line of the proposed access path where potential impacts on commuting bats required assessment. The route also passed the farmhouse roost complex to detect emergence, return flights and locally intense foraging associated with the BLE maternity colony and the LHS day roost. To reduce temporal bias, the direction of travel along the route was reversed on alternate visits, following BCT (2023) guidance on rotation. Surveys began at sunset and continued for 1.5–2 hours in dry, mild conditions with low wind speeds. Full-spectrum detectors (Batlogger M/Batlogger M2) were used to record bat registrations

with GPS-linked behavioural notes, and all calls were later manually reviewed with Batexplorer.



Figure 1: Shows the transect route for all six surveys

Static Detector Monitoring

- 3.5 Across the same seasonal windows, three static detectors (Audiomoths) were deployed monthly for five-night periods (Table 2).

Date	Positions
18/05/2025 – 22/05/2025	1, 4 & 5
21/06/2025 – 25/06/2025	1, 2 & 5
08/07/2025 – 12/07/2025	1, 3 & 5
24/08/2025 – 28/04/2025	1, 4 & 5
04/09/2025 – 08/09/2025	1, 4 & 5
09/10/2025 – 13/10/2025	1, 4 & 5

Table 2: Summarises the date and positions for the static detectors

- 3.6 Five positions were used across the site, targeted according to habitat type, development footprint, and roost proximity (Figure 2). Positions were determined to balance methodological consistency with the need to remain responsive to evolving proposals for the solar array and associated access routes. At the outset of the survey programme, two detectors (Positions 1 and 5) were fixed for the duration of the season. These locations were chosen because they lay within the fields originally considered for solar development. Maintaining these two detectors in the same place throughout every deployment window created a stable baseline against which seasonal patterns, habitat-specific variation, and any proposal-related shifts in bat activity could be reliably compared.



Figure 2: Shows the five positions selected for monitoring the site

- 3.7 To complement these fixed points, a third detector was treated as a roving unit, moved strategically between Positions 2, 3 and 4 depending on the needs of the project at different stages.
- 3.8 Across all locations, detectors were mounted at 1.2–1.5 m height on posts or trees, with microphones angled horizontally and placed away from vegetation to avoid attenuation. Full-spectrum recording at 256–384 kHz was used throughout, with gain control disabled in accordance with static detector best practice. The resulting dataset captured both broad landscape use and fine-scale roost-associated activity, while the blend of fixed and flexible deployment allowed the bat survey to remain responsive to the changing shape of the development proposals without compromising methodological rigour.

Great Crested Newts

- 3.9 Any ponds on site and within the vicinity of the site were noted and the potential of the land to act as a commuting route, shelter or foraging resource for great crested newts (GCN) was assessed. An eDNA survey was undertaken of the ponds to establish if they had Great Crested Newts present.

Birds

- 3.10 The breeding bird survey was designed to document all species using the site during the core breeding period, assign breeding status (possible, probable, confirmed) using standard evidence, and map registrations across six visits to infer territory locations that would provide a robust, decision-grade baseline for the proposed solar PV scheme. The methodology follows the approach outlined in the Bird Survey Guidelines (2023) which adapts Common Bird Census (CBC) principles for ecological assessments, incorporating repeat visits, territory mapping, and classification of breeding status.
- 3.11 To ensure consistency and provide a comprehensive snapshot of the bird assemblage the survey area comprised of the original red-line boundary. A systematic walking route (Figure 3) ensured full coverage of internal fields, all linear features and vantage points

with views across larger compartments. The route was reversed on each subsequent visit to ensure early/late coverage was distributed evenly across the site.



Figure 3: Shows the transect route for all six surveys

- 3.12 Surveys were walked across the original red-line boundary to ensure comprehensive coverage of boundary habitats; results and territory interpretation in this report are assessed against the revised red line, which now comprises a single modified grassland field, as shown in Appendix B.
- 3.13 Six visits were completed between April and July 2025 in suitable conditions (Table 3), spaced by two weeks and distributed across early, mid and late season to capture territory establishment, incubation and fledging. Each visit began at dawn and continued to late morning under suitable conditions. Effort per visit was sufficient to traverse all compartments slowly and quietly, with regular listening/scan stops to maximise detectability of quieter or skulking species.

Date	Surveyor	Visit	Cloud cover	Rain	Wind	Visibility
17/04/2025	Angus Layton	1	0-33%	None	Calm	Good
30/04/2025	Angus Layton	2	0-33%	None	Calm	Good
16/05/2025	Angus Layton	3	34-66%	None	Calm	Good
30/05/2025	Angus Layton	4	34-66%	None	Calm	Good
17/06/2025	Angus Layton	5	0-33%	None	Calm	Good
10/07/2025	Angus Layton	6	0-33%	None	Calm	Good

Table 3: Environmental conditions of each survey visit

- 3.14 Every visit was conducted by the experienced surveyor Angus Layton (ACIEEM) equipped with Zeiss 10×42 Victory SF binoculars. Angus has a combined 16 years' experience surveying birds (6 years as a professional and 10 in volunteer roles).
- 3.15 Every bird seen or heard was recorded onto geo-referenced base layers, noting diagnostic behaviours (singing males, pairs, display, alarm, nest evidence, adults

carrying food, fledged young). Any nests found incidentally were mapped without approach or handling, in line with wildlife legislation and our internal welfare protocols. Breeding status was assigned using the standard Possible / Probable / Confirmed categories within a territory-mapping framework, ensuring transparent, repeatable evidence pathways from field observation through to the final assessment.

4.0 Results and Analysis

Bats

- 4.1 The Night-time Bat Walks (NBWs) provide a valuable snapshot of how bats use the site spatially at ground level. They offer high-resolution information on where bats are most active during the 2 hours following sunset, allowing clear identification of important commuting routes, boundary features and foraging areas. However, due to the limited duration and once-per-month survey frequency, NBWs cannot be used to infer seasonal patterns or changes in population-level activity, their strength lies in mapping spatial patterns of use, not temporal ones.
- 4.2 In contrast, the static detector dataset provides a far more robust measure of temporal variation because each detector operates for five consecutive nights per deployment period. This produces a much larger volume of calls collected under a range of conditions, allowing meaningful comparison between months.
- 4.3 Together, the NBWs and static detectors provide a complementary evidence set:
- NBWs define where bats move and which features they rely on.
 - Static detectors define when bats are most active and which species are present throughout the season.
- 4.4 Used in combination, they allow the identification of both the key ecological features of the site and the temporal dynamics of the bat assemblage, building a robust foundation for assessing potential development impacts and designing proportionate mitigation.

Transect Results

- 4.5 Bat activity recorded during the Night-time Bat Walks (NBWs) showed consistent use of the site throughout the survey season, with a total of 386 confirmed passes across six visits (Table 4). Activity was dominated by common pipistrelle (*Pipistrellus pipistrellus*), comprising 183 passes, followed by Myotis spp. (78), soprano pipistrelle (*P. pygmaeus*) (44), LHS (40) and noctule (*Nyctalus noctula*) (33). Occasional records were made of serotine (*Eptesicus serotinus*), greater horseshoe bat (GHS) (*R. ferrumequinum*).

Species	May	Jun	Jul	Aug	Sep	Oct	Grand Total
<i>Eptesicus serotinus</i>		3	1	1			5
<i>Myotis spec.</i>	11	19	21	12	12	3	78
<i>Nyctalus noctule</i>	5	14	4	7	3		33
<i>Pipistrellus pipistrellus</i>	31	45	27	43	28	9	183
<i>Pipistrellus pygmaeus</i>	4	1	3	29	4	3	44
<i>Rhinolophus ferrumequinum</i>				3			3
<i>Rhinolophus hipposideros</i>	3	1	5	19	12		40
Grand Total	54	83	61	114	59	15	386

Table 4: Summarises the number of recordings for each species on each NBW

- 4.6 The NBW heatmap (Figure 4) shows that bat activity across the site is strongly concentrated along linear vegetated features, particularly the western woodland edge and adjoining hedgerow, where repeated clusters of detections indicate regular use by a range of species. Additional activity is visible around the farmhouse and pond,

consistent with the presence of known roosts, along sections of the woodland rides and the canal to the south. In contrast, the interior of the development field displays only scattered detections and no consistent clustering, suggesting limited foraging or commuting within the open grassland. While the heatmap does not define movement routes precisely, the clear pattern of concentrated activity along boundary features highlights the importance of maintaining connectivity and dark conditions around the woodland edge, western hedgerow and roost-adjacent habitats.



Figure 4: Shows a heatmap of recordings made on all the NBW

Western Woodland & Hedgerow Corridor

- 4.7 The highest levels of bat activity were consistently associated with the hedgerow in the northwest and adjoining woodland block, with a large cluster of pipistrelle, *Myotis* species, and LHS recordings. This area acts as a primary commuting and foraging corridor within the wider site connecting to the adjacent local nature reserve. LHS likely move along this boundary after emerging from the farmhouse roost. The repeated presence of *Myotis* species further highlights the importance of this western corridor as a core ecological feature which is outside the development footprint and remains unaffected by the proposed scheme

Woodland Rides

- 4.8 Within the woodland itself, recordings are focussed along the rides and internal clearings due to the designated transect. Levels of *Myotis* activity were consistently high in the sheltered clearings which create optimal conditions for foraging. Pipistrelles were also recorded exploiting the same areas, but at a lower and more sporadic level. The woodland rides thus function as high-quality foraging habitat but are outside the development footprint and remain unaffected by the proposed scheme.

Farmhouse Roost Area

- 4.9 The heat map clearly highlights lesser horseshoe, pipistrelles, and occasional *Myotis* activity close to the farmhouse, pond, and surrounding trees. This is consistent with the location of a known LHS day roost and its associated emergence routes. This roost-associated area represents a sensitive ecological receptor but lies outside the final development boundary.

Solar Field

- 4.10 Within the updated development footprint, NBW data indicates that bat activity inside the central area of the solar field was generally low, with detections mainly consisting of occasional pipistrelle and noctule passes near the central replanted strip (retained in the proposals). The heatmap shows that activity was strongly concentrated along the southern boundary of the site along the canal. This boundary functions as a key commuting and foraging corridor, providing optimal foraging habitat. These results indicate that bat use of the site is structured around edge habitats and vegetated corridors, with comparatively limited reliance on the open grassland field interior.
- 4.11 Given the concentration of bat activity along the southern boundary, this area will be retained as a 20 m wide strip between the solar array and the canal. This is likely to be either scrub or ONG under the BNG project. This undeveloped buffer ensures that the primary bat commuting and foraging route remains physically separated from the solar infrastructure. Management of this zone will focus on enhancing structural diversity. This will improve invertebrate abundance, provide shelter from wind, and maintain dark, sheltered flight lines along the canal edge.
- 4.12 In addition to the southern buffer, a linear strip running through the centre of the solar array will be retained and enhanced to maintain connectivity between the woodland to the north and the canal corridor to the south. Survey results identified scattered bat activity within this central strip, reflecting its role as a secondary movement corridor across the site. The retention of this feature will preserve a vegetated linkage across the field, preventing the solar array from creating a continuous open expanse devoid of structural habitat.

Static Results

- 4.13 Static detectors were deployed for five-night periods across six survey windows between May and October, providing a larger and more continuous dataset than the NBW transects. This data set offers an indication of overall activity levels, species presence, and broad seasonal patterns. Across the season, a total of 5,464 confirmed bat passes were recorded across all static positions.
- 4.14 Position 5, located near the eastern boundary of the proposed solar field, logged 1,676 passes (Table 5), dominated by common pipistrelle and noctule, with additional records of *Myotis*, soprano pipistrelle, BLE, and occasional barbastelle (*Barbastella barbastellus*) lesser horseshoe and greater horseshoe. This assemblage is characteristic of sites that incorporate boundary vegetation and open grassland and reflects the variety of species likely to be active in this part of the landscape.

Species	May	Jun	Jul	Aug	Sep	Oct	Grand Total
<i>Barbastella barbastellus</i>		2		14		1	17
<i>Eptesicus serotinus</i>	1	31	34	2	1	1	70
<i>Myotis spec.</i>	67	13	9	51	25	26	191
<i>Nyctalus noctula</i>	14	125	77	59	76	69	420
<i>Pipistrellus pipistrellus</i>	57	329	289	121	5	3	804
<i>Pipistrellus pygmaeus</i>	26	47	27	12	1	2	115
<i>Plecotus auritus</i>	11	2	22	13	6	3	57
<i>Rhinolophus ferrumequinum</i>			1				1
<i>Rhinolophus hipposideros</i>						1	1
Grand Total	176	549	459	272	114	106	1676

Table 5: Summarises the recordings made at position 5

- 4.15 Because Position 5 was deployed during every monitoring window, it provides a reasonable indication of how total activity varied across the season (Figure 5). The highest call numbers occurred during the mid-summer deployments, particularly in June, July and August. Activity remained present into September but declined in October, consistent with typical reductions in bat activity during cooler conditions. These month-by-month differences should be interpreted cautiously, as nightly conditions and insect availability can influence activity levels at short timescales; however, the broad pattern is typical of mixed-species bat assemblages monitored over multiple nights.

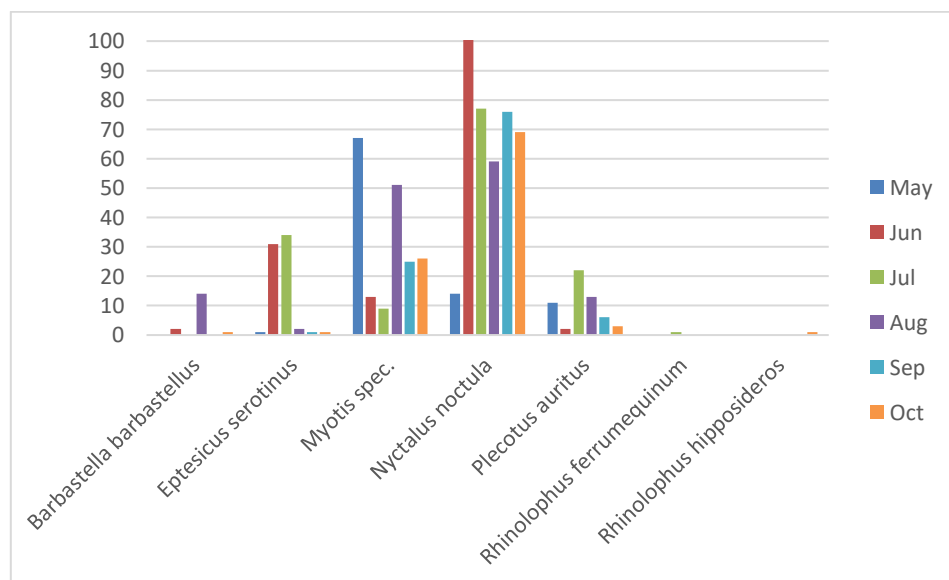


Figure 5: Plots the number of recordings for each species by month for position 5

- 4.16 The timing of detections at Position 5 varied between species and provides some indication of how different bat groups may be using the area (Figure 6). Barbastelle calls, although recorded in low numbers, occurred only during the middle part of the night. This pattern is consistent with barbastelle behaviour observed at other sites, where they often forage later in the night after moving away from core roost areas. While the dataset is limited, the absence of early-evening records suggests it is unlikely

that a barbastelle roost is located close to this detector, and that the area is more likely used on an occasional foraging or commuting basis.

- 4.17 For *Myotis* species and BLE, detections occurred within time periods that overlap with their known emergence windows. *Myotis* species were recorded shortly after sunset on several deployments, and BLE calls occurred during similar early-night intervals. These early detections are consistent with the presence of a nearby BLE roost, and although the data do not confirm roosting by *Myotis* species, the timing pattern is compatible with the possibility of a *Myotis* roost in the wider area, given their emergence behaviour. However, the static detector cannot establish roost location or type.
- 4.18 In contrast, LHS detections were rare at Position 5. This suggests that this boundary is not frequently used by bats from the nearby LHS roost. That said, lesser horseshoe bats produce low-intensity calls and tend to commute close to the ground, often beneath vegetation cover. Given the topography and structure around Position 5, it is possible that the detector's placement and detection range reduced the likelihood of reliably capturing LHS flights. Therefore, the low number of LHS calls does not necessarily indicate absence but likely reflects a combination of species detectability and the sheltered flight behaviour typical of these bats.

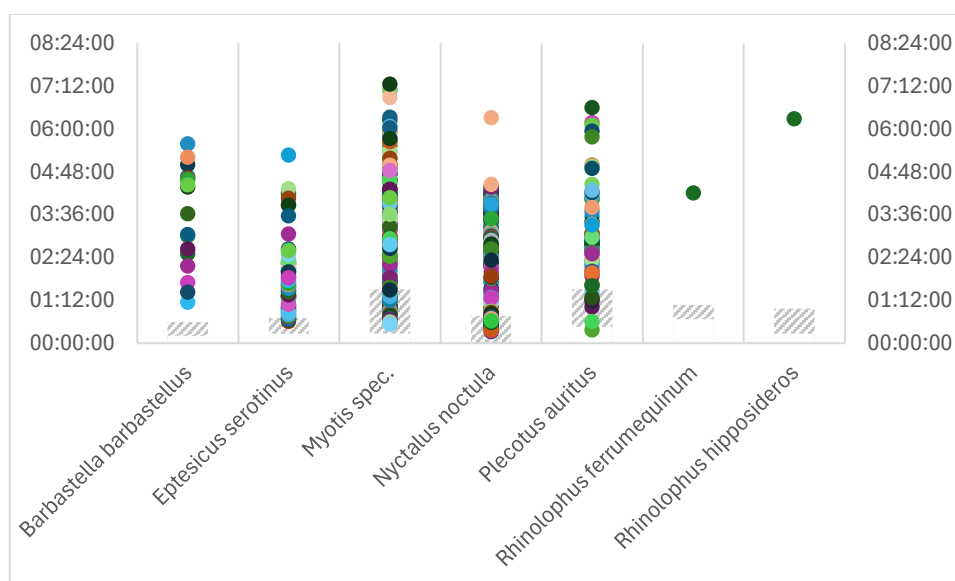


Figure 6: Plots the recordings for each species against their time from sunrise/set. The grey boxes highlight the typical emergence period for each species

- 4.19 Position 1, located in the northwest field, recorded high activity levels 1,079 passes (Table 6). Many of these detections were attributed to common pipistrelle, with additional records of soprano pipistrelle, *Myotis* species, noctule, brown long-eared bat, serotine and a single barbastelle call. This represents a typical assemblage for a location situated near boundary vegetation, woodland and open farmland, with a mixture of species that forage in both open and more enclosed habitats. The presence of multiple bat groups indicates that the surrounding features offer some value as part of the local activity network, although the dataset cannot determine how individual bats were using this area beyond the immediate detection range.

Species	May	Jun	Jul	Aug	Sep	Oct	Grand Total
<i>Barbastella barbastellus</i>			1				1
<i>Eptesicus serotinus</i>	1	1	6	1			9
<i>Myotis spec.</i>	57	43	57	18	23	19	217
<i>Nyctalus noctula</i>	12	184	30	11	63	70	370
<i>Pipistrellus pipistrellus</i>	55	59	238	13	4	6	375
<i>Pipistrellus pygmaeus</i>	26	3	14	1	1	1	46
<i>Plecotus auritus</i>	4	6	39	11	1		61
Grand Total	155	296	385	55	92	96	1079

Table 6: Summarises the recordings made at position 1

- 4.20 Because Position 1 was deployed during every monthly monitoring period, the dataset provides a broad picture of how the total number of detections changed across the active season (Figure 7). Activity increased through the early and mid-season deployments, with the highest call totals recorded during June and July, after which pass rates declined into September and reached their lowest levels in October. Although the multi-night recording periods at this detector give a more stable indication of activity than the NBWs, these month-to-month patterns should still be interpreted with caution. Variability between months may reflect changes in weather conditions, temperature, or local insect abundance rather than genuine shifts in bat use of the landscape.

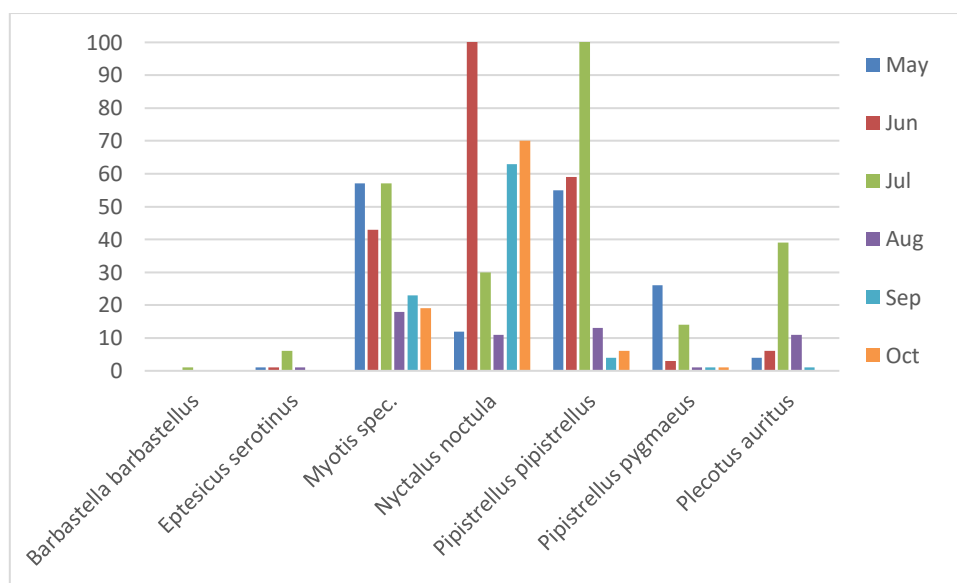


Figure 7: Plots the number of recordings for each species by month for position 1

- 4.21 The timing of detections at Position 1 varied by species (Figure 8), and although static detectors cannot determine precise movement routes, the distribution of calls across the night provides some indication of how different bat groups may be using the area. *Myotis* species, BLE, and noctule all produced calls within time periods that correspond closely with their respective emergence windows. These early-night detections are consistent with the possibility of roosts being located nearby in the wider area, particularly given the presence of mature trees within the adjacent hedgerow and the woodland strip along the northern boundary beside the railway, both of which offer

realistic roosting opportunities. However, the dataset cannot confirm roost presence or proximity; it can only indicate that the timing of activity aligns with what would be expected if roosts were present nearby.

- 4.22 In contrast, barbastelle and serotine detections were limited in number and occurred mainly in the middle of the night rather than close to typical emergence periods. This timing pattern is often observed at locations that lie outside a species' core foraging range or main commuting routes, and the limited number of calls supports a cautious interpretation that Position 1 is not central to either species' primary activity area. Nevertheless, their occasional presence indicates that they do pass through the area, even if infrequently.

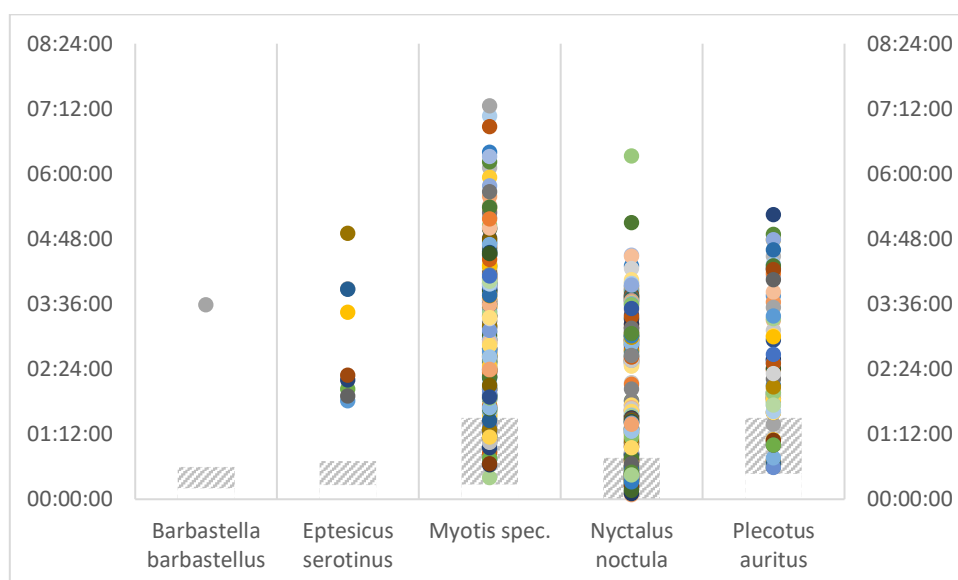


Figure 8: Plots the recordings for each species against their time from sunrise/set. The grey boxes highlight the typical emergence period for each species

- 4.23 Position 4 recorded a total of 1,854 bat passes across its four deployment periods (May, August, September and October) (Table 7), making it a relatively high-activity location compared with other detectors on site. The majority of detections were attributed to common pipistrelle, which accounted for 1,080 passes, followed by substantial numbers of brown long-eared bat (415 passes) and soprano pipistrelle (180 passes). Regular detections of Myotis species (67 passes) and lesser horseshoe bat (94 passes) were also logged, along with smaller numbers of noctule, serotine and barbastelle.
- 4.24 Because Position 4 was placed close to the farmhouse roost, associated mature vegetation and large pond, the species diversity recorded is unsurprising. The presence of lesser horseshoe bats and the high number of BLE detections are consistent with the proximity of suitable roosting features, although the static detector cannot confirm how individual bats were using these structures.

Species	May	Aug	Sep	Oct	Grand Total
<i>Barbastella barbastellus</i>		3	1	1	5
<i>Eptesicus serotinus</i>	1	3	1		5
<i>Myotis spec.</i>	10	32	5	20	67
<i>Nyctalus noctula</i>	3	1	3	1	8

<i>Pipistrellus pipistrellus</i>	214	391	384	91	1080
<i>Pipistrellus pygmaeus</i>	53	58	52	17	180
<i>Plecotus auritus</i>	119	144	104	48	415
<i>Rhinolophus hipposideros</i>	34	26	18	16	94
Grand Total	434	658	568	194	1854

Table 7: Summarises the recordings made at position 4

- 4.25 The timing of detections at Position 4 reflects its proximity to a known brown long-eared maternity roost and lesser horseshoe bat day roost (Figure 9). Both species produced very early-night recordings, closely aligned with their expected emergence windows. This pattern is consistent with the presence of these roosts adjacent to the detector and explains the high number of BLE detections and the repeated early-night LHS calls across the May–October deployments.
- 4.26 While *Myotis* species and noctule were also occasionally recorded soon after sunset, the majority of detections for these species occurred later in the night, indicating that Position 4 is more likely functioning as part of a foraging or commuting area, rather than directly reflecting emergence behaviour.
- 4.27 Serotine and barbastelle passes were detected only in low numbers and mainly during the mid-night period. This timing, combined with their limited occurrence, suggests that Position 4 is unlikely to lie within a core foraging or commuting area for either species. Their presence indicates occasional use of the wider habitat mosaic rather than regular or focused activity around this detector location.

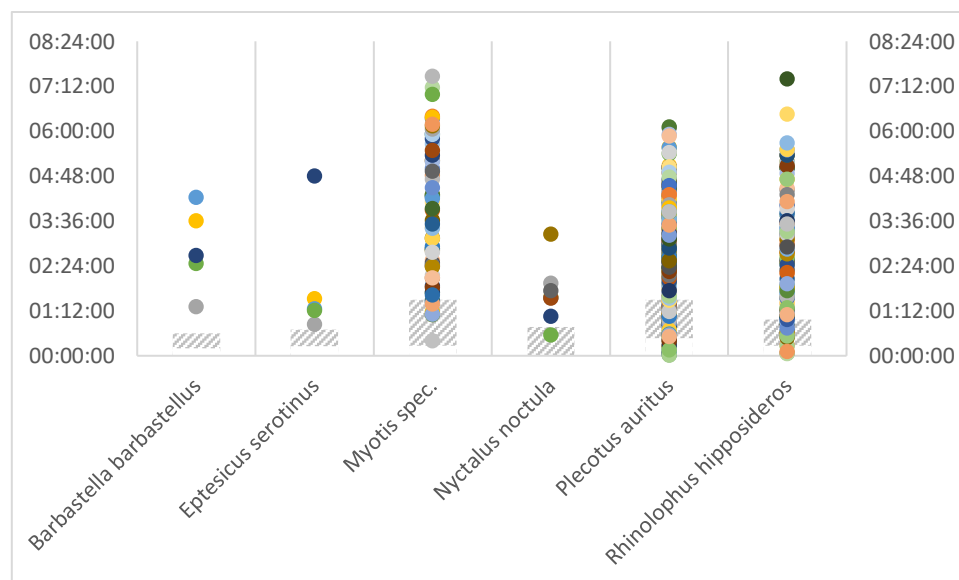


Figure 9: Plots the recordings for each species against their time from sunrise/set. The grey boxes highlight the typical emergence period for each species

- 4.28 Positions 2 and 3 were each deployed for a single five-night period, Position 2 in June (Table 8) and Position 3 in July (Table 9), and their proximity means the results are best considered together. Across both deployments, the detectors recorded a mixture of common pipistrelle, soprano pipistrelle, *Myotis* species, noctule, brown long-eared bat and occasional serotine and barbastelle calls. Position 2 recorded 174 passes, while Position 3 recorded 481 passes, the higher total at Position 3 likely reflecting its

placement close to woodland vegetation, where structural complexity generally supports increased foraging activity. No horseshoe bats were detected at either location during the sampling periods.

Species	21-Jun	22-Jun	23-Jun	24-Jun	25-Jun	Grand Total
<i>Eptesicus serotinus</i>				1	1	2
<i>Myotis spec.</i>	7	1	1	4	2	15
<i>Nyctalus noctula</i>	5	17	3	14	47	86
<i>Pipistrellus pipistrellus</i>	16	6	3	10	16	51
<i>Pipistrellus pygmaeus</i>	6	1	6	1		14
<i>Plecotus auritus</i>	2	2			2	6
Grand Total	36	27	13	30	68	174

Table 8: Summarises the recordings made at position 2

Species	08-Jul	09-Jul	10-Jul	11-Jul	12-Jul	Grand Total
<i>Barbastella barbastellus</i>				1		1
<i>Eptesicus serotinus</i>	1	13	6	13	12	45
<i>Myotis spec.</i>	8	12	22	15	22	79
<i>Nyctalus noctula</i>	11	33	25	12	5	86
<i>Pipistrellus pipistrellus</i>	22	11	56	44	73	206
<i>Pipistrellus pygmaeus</i>	6	6	8	9	4	33
<i>Plecotus auritus</i>	5	5	12	4	5	31
Grand Total	53	80	129	98	121	481

Table 9: Summarises the recordings made at position 3

- 4.29 The timing of detections at Positions 2 (Figure 10) and 3 (Figure 11) shows some contrasts that help to characterise how bats were using this part of the site during the June and July deployments. At Position 2, noctule calls were recorded predominantly in the early part of the night, whereas at Position 3, noctule detections were more frequent slightly later in the night. This difference coupled with early recordings at Position 1 suggests at a possible roost in the north-west or to the north-west of the site.
- 4.30 Position 2 recorded a small number of early *Myotis* detections, but the limited number of calls prevents any firm conclusions from being drawn. When these records are considered alongside the early *Myotis* detections at Position 3, the combined dataset suggests that bats from this group are regularly active in the woodland strip and adjacent habitat. Although the static detectors cannot determine behaviour or direction of movement, these early-night detections are consistent with the woodland functioning as a key foraging and commuting area.
- 4.31 At Position 3, there were also some early detections of brown long-eared bat, which is expected given that this position lies closer to the known BLE maternity roost near Position 4.

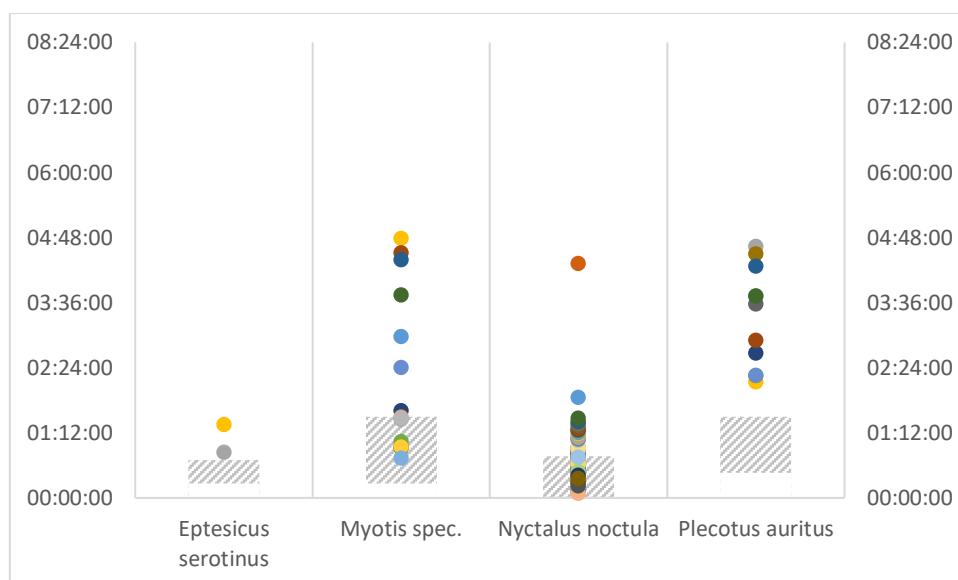


Figure 10: Plots the recordings for each species against their time from sunrise/set. The grey boxes highlight the typical emergence period for each species

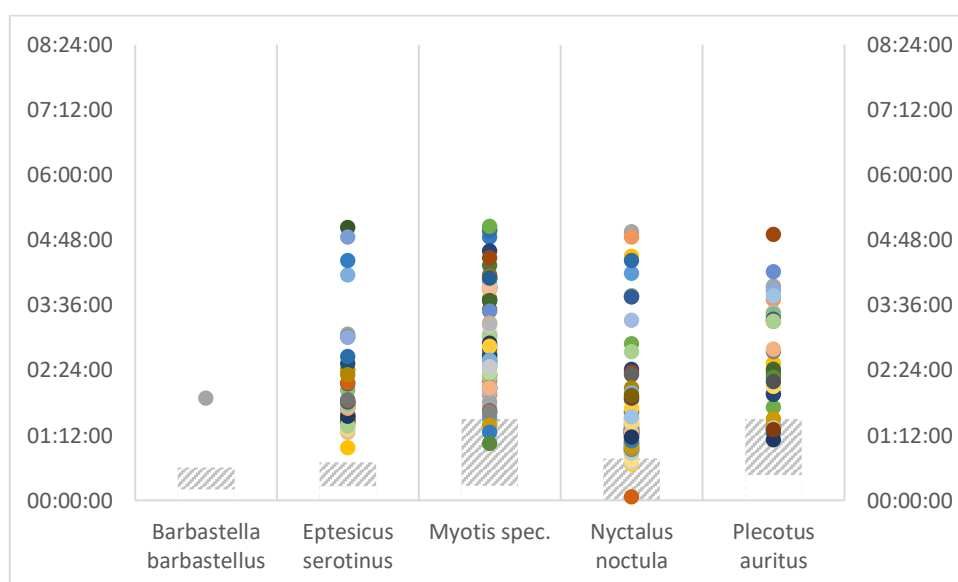


Figure 11: Plots the recordings for each species against their time from sunrise/set. The grey boxes highlight the typical emergence period for each species

- 4.32 The survey data indicate that the woodland block, its associated ponds, and the canal corridor to the south form the principal areas of foraging and commuting activity for several species recorded on site. These habitats support regular use by common and soprano pipistrelle, Myotis species, noctule, brown long-eared bat and horseshoe bats. The presence of a brown long-eared maternity roost and a lesser horseshoe day roost at the farmhouse establishes this area as a key roosting location, with early-night activity at nearby detectors confirming the proximity of these roosts to foraging features.
- 4.33 The development is confined to the interior of a single field that supports comparatively low levels of bat activity, with no roosts or high-value core foraging areas identified

within the panel footprint. Direct habitat loss is therefore considered to present a low risk to bats. The principal potential impacts relate instead to changes in habitat connectivity and disturbance to key linear features. In particular, the eastern boundary hedgerow, the canal corridor along the southern boundary, and the retained central strip that links the woodland to the canal represent important commuting and foraging routes. If not appropriately protected and managed, construction activity, vegetation removal, or increased illumination could reduce the suitability of these features, potentially affecting bat movement between the woodland/farmhouse area and the canal corridor.

- 4.34 Artificial lighting has the potential to affect light-sensitive species such as lesser horseshoe bat and *Myotis* species, particularly along boundary features. Light spill onto the western hedgerow, farmhouse roost, or woodland edge could discourage movement or reduce foraging opportunities.

Great Crested Newts

- 4.35 No ponds were present on site within the red line boundary. The wider Biffa site includes ponds, a ditch network and areas of seasonally wet grassland and rough marginal habitat, which may support foraging or dispersing amphibians. Six ponds within 1km were surveyed in total for eDNA (Figure 12) and three of these were positive for Great Crested Newts (Ponds 1, 2, 3), these were all on Wiltshire Wildlife Trust land nearly 1km to the west, surrounded by optimal GCN habitat. The pond on the residential garden to the west (Pond 4) was negative, the pond within the wider Biffa site (Pond 5) was negative and the pond (part of old canal) to the rear of the garden centre (Pond 6) was negative.
- 4.36 The site lies within the Naturespace Partnership Amber Risk Zone for Great Crested Newts, Amber zones contain main population centres for GCN and comprise important connecting habitat that aids natural dispersal. While GCNs may forage in sub-optimal habitats occasionally, the areas affected by the proposed works are not well connected directly to the nearest GCN pond which is nearly 1km to the west and separated by a road and grazed fields. The distance between the site and the nearest positive record for GCN, and the low levels of disturbance during construction means that the impact from the solar panels would be low to negligible in the absence of mitigation. Therefore there is no need for a District Level Licence.
- 4.37 With the habitat management improvements there will be improvements in commuting and foraging habitat due to the more diverse sward and improved grassland management. The grassland on site should be maintained short prior to the works being undertaken.

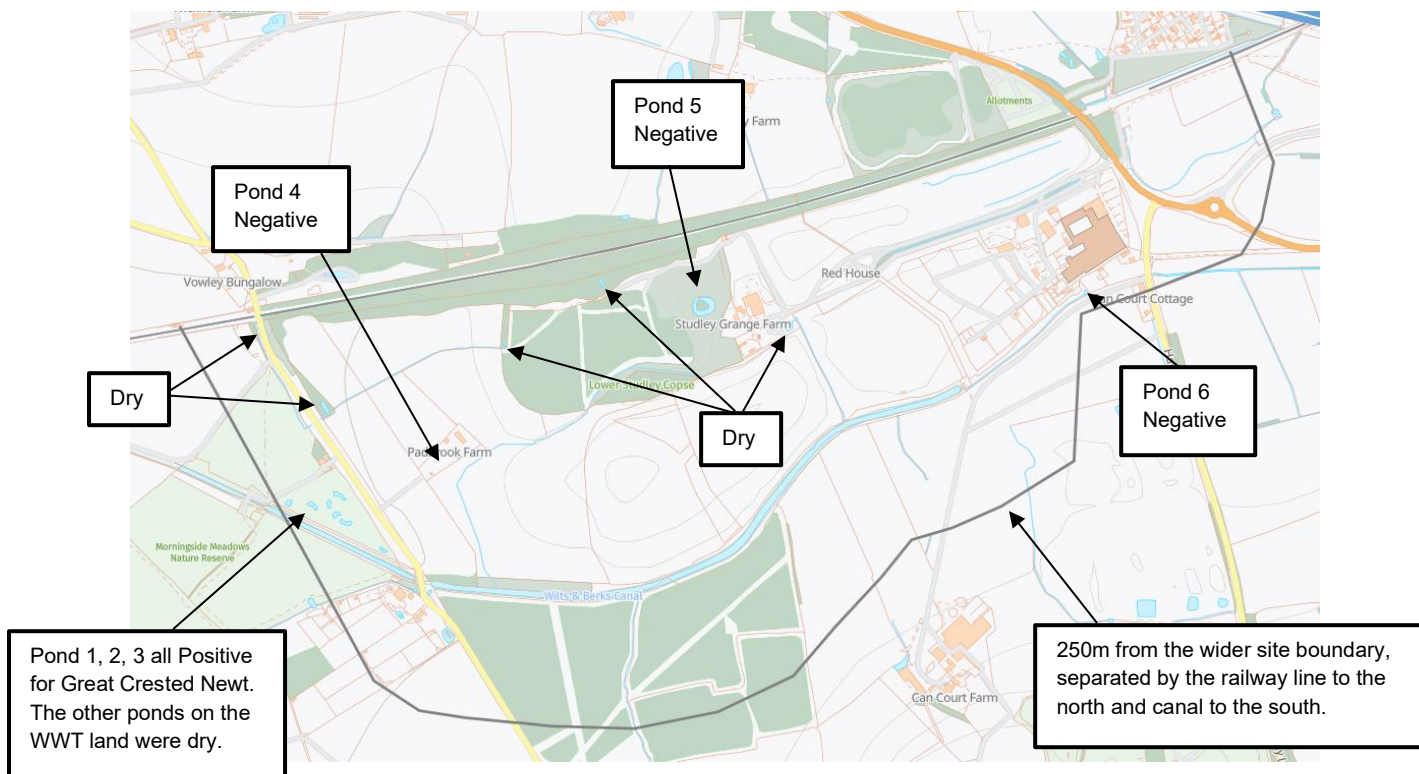


Figure 12: ponds within 250m of the site boundary

Birds

- 4.38 A total of 41 species were recorded across the six breeding-season visits. Species richness peaked in late April and mid-May before declining into June and early July (Figure 13), which is consistent with the seasonal reduction in conspicuous song and display following fledging. Total counts showed the same pattern, with higher overall abundances in April–May and a progressive tail-off into July.

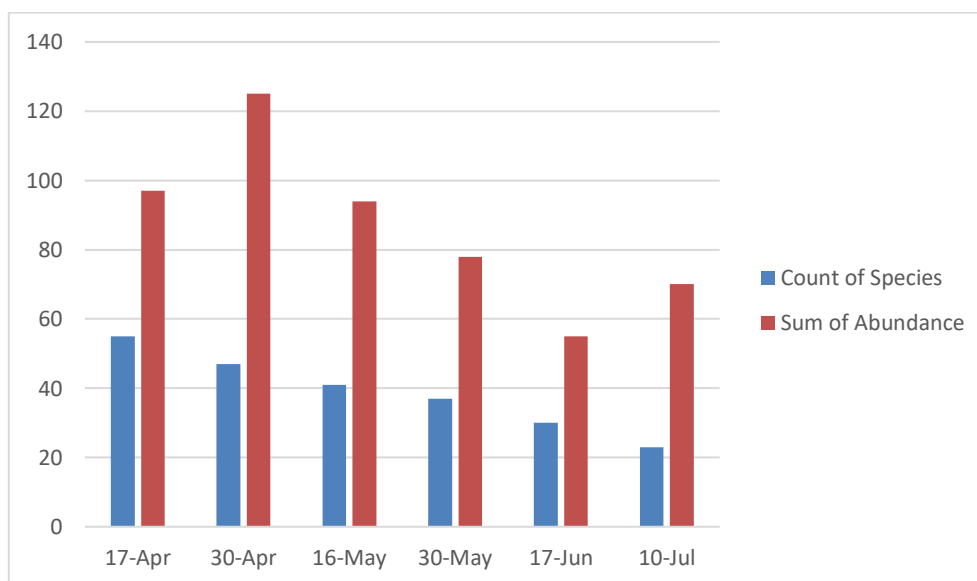


Figure 13: Shows the total number of species and individuals for each survey

- 4.39 The assemblage remains typical of mixed farmland/edge habitats: common passerines associated with hedgerows, treelines and narrow woodland strips, plus occasional over-flying corvids and gulls. Repeated registrations along woody linear features indicate likely territory foci for the common passerines; open improved grassland and field margins supported foraging (e.g., finches and sparrows). Over-flying gulls and corvids are included in the dataset for completeness but should not be inferred as nesting within the red line unless supported by on-site nesting/fledging evidence.
- 4.40 Using recorded behaviour, breeding status was assigned per species according to standard cues (e.g., nests/eggs/young, food-carry, fledged young for Confirmed; nest-building/pairs/territorial/display/alarm for Probable; single-visit singing or presence in suitable habitat for Possible). Where a species showed singing on ≥ 2 separate visits, overall status was elevated to Probable. The resulting assemblage comprises:
- Confirmed breeders (10 species): Buzzard, Great Tit, Blue Tit, Long-tailed Tit, House Sparrow, Chaffinch, Carrion Crow, Chiffchaff, Green Woodpecker, Tawny Owl
 - Probable breeders (11 species): including repeat-visit singing/display/territorial or nest-building evidence for several common passerines (e.g., Blackcap, Song Thrush, Willow Warbler, Sedge Warbler).
 - Possible breeders (19 species): present within the breeding window with single-visit singing or habitat-based likelihood but lacking stronger behavioural evidence.
- 4.41 Notable records include Buzzard confirmed on-nest, Tawny Owl and Green Woodpecker confirmed along woodland edges/hedgerows, House Sparrow (a conservation-priority species) was confirmed nesting around built features and hedgerows, Long-tailed Tit, Blue Tit, Great Tit and Chiffchaff were also confirmed and are tightly linked to continuous hedgerows/treelines.
- 4.42 Among probable, Skylark (open-ground priority species) was noted in areas adjacent to the wider site over arable fields and Song Thrush within the site (southern boundary), indicate value in maintaining low, lightly managed sward mosaics, unworked field margins and invertebrate-rich microhabitats away from panel density.
- 4.43 Territory mapping confirms that breeding activity of passerines is concentrated along the northern hedgerow/woodland belt and around patches of mature trees and scrub (Figure 14), with limited use of open, heavily grazed grassland inside the revised red line.



Figure 14: Shows the territories of all passerine species, represented by standard BTO short codes.

- 4.44 Across the hedgerow/treeline system, mapped territories for small passerines (e.g., Wren, Chiffchaff, Willow Warbler, Blackcap, Blue Tit, Great Tit, Chaffinch, House Sparrow) form a near-continuous chain along the northern boundary and around the small woodland blocks and farm buildings. The passerine map shows repeated clusters at hedge bays, ride edges and around built features— exactly where singing, pair/territorial behaviour and fledged young were recorded. This pattern corroborates the Confirmed statuses for Blue Tit, Great Tit, Long-tailed Tit, House Sparrow, Chaffinch and supports Probable for other edge species where territories are defined by multi-visit occupation but lack direct nesting evidence.
- 4.45 The raptor/owl territories are centred in off-site woodland to the west/central-west; their mapped centres lie ~500 m (Buzzard) and ~350 m (Tawny Owl) from the new site boundary (Figure 15). Green Woodpecker activity is likewise focused off-site along the wooded corridor. Two Skylark territories are mapped outside of both the original and revised boundary (one to the north, one to the south-east), confirming that no Skylark territories occur within the single array field.



Figure 15: Shows the territories of Buzzard, thrushes, Green Woodpeckers and Skylarks as represented with standard BTO short codes.

- 4.46 A small rookery within the woodland/treeline to the west of proposed array was identified. This represents confirmed colonial nesting by Rook (counted by occupied nests, not “territories”). The colony appears discrete and localised (small cluster), consistent with a minor satellite rookery rather than a large, established colony. Under the revised red line (single modified-grass field), the rookery sits outside the array field and would likely be undisturbed by construction noise and visual activity during the establishment and breeding period (typically Feb–Jun). No direct tree/rookery loss is proposed, but the presence of the colony elevates the sensitivity of that edge compared with surrounding open grassland.

Discussion

- 4.47 The revised red line boundary is substantially smaller than in the PEA and now encompasses one heavily grazed, modified grassland field only (see appendices). This change materially reduces the scope for direct habitat loss and limits effects largely to temporary construction disturbance and long-term changes to sward management within the array field. Key breeding features (mature trees, hedgerows and woodland strips) that supported confirmed Buzzard, Tawny Owl and Green Woodpecker lie outside the new boundary; based on your updates the Buzzard nest is ~350 m away, and Tawny Owl and Green Woodpecker nests are ~150 m away. At these stand-off distances and with the proposals confined to a single open grass field, direct nesting impacts are not anticipated, and disturbance risk is low, provided noisy works are well-managed.

- 4.48 Skylark territories were noted adjacent to the original red line rather than within the revised boundary. Consequently, no direct loss of Skylark territories is expected. The remaining risk is functional disturbance. This can be managed by programming high-noise activities outside the core breeding period or by maintaining a quiet working edge on the south side nearest previously mapped Skylark activity.
- 4.49 Within the array field itself, baseline value is low (heavily grazed, modified sward with limited structure). Post-construction, a sensitively managed solar grassland typically offers equal or better resources for many small passerines (invertebrate prey, cover and seed) if cutting is relaxed and margins are diversified. The main ecological trade-off is that dense panel layouts can suppress open-ground nesting, which is already limited here by the current short, grazed sward.

5.0 Mitigation & Enhancement Opportunities

Bat Mitigation Measures

- 5.1 Retaining and strengthening the eastern boundary hedgerow, the southern canal corridor and the central strip of vegetation will address the principal connectivity risk. The following measures are recommended:
- A minimum 10 m buffer between the development and the hedgerow to avoid root damage, shading alteration or vegetation loss.
 - A minimum 20m buffer between the development and canal enhanced with scrub planting and management.
 - Increased scrub planting and management in the central strip.
 - Maintaining the 3 linear features as dark corridors, with no direct or spill lighting.
- 5.2 These actions will maintain connectivity for bats moving between the farmhouse, woodland and canal.
- 5.3 If lighting is required, a sensitive lighting plan should be implemented to ensure:
- No illumination of the western hedgerow, farmhouse, woodland edge or canal direction.
 - Use of directional, low-intensity, warm-spectrum lighting where lighting is required.
 - Avoidance of column lighting and unnecessary night-time illumination.
- 5.4 Bat-friendly lighting will be used and the dark corridors around the site will be maintained dark, below 1lux. Lighting will be designed in accordance with the Bat Conservation Trust Guidance Note 08/23: Bats and Artificial Lighting at Night
- 5.5 The grassland beneath and between the solar arrays offers an opportunity to improve foraging conditions. Managing this area as a wildflower-rich grassland or low-intensity meadow would increase invertebrate abundance and complement the retained hedgerow corridors.

Wider Enhancement Opportunities for bats

- 5.6 In addition to mitigation, there are several opportunities for site-wide ecological enhancement:
- Grazing management in adjacent fields to promote a more varied sward structure, supporting broader invertebrate communities.
 - Hedgerow management across the wider site to increase connectivity and shelter.
- 5.7 These enhancements would reinforce the site's existing ecological functions and support the bat assemblage documented through the surveys.

Birds - Disturbance and lighting

- 5.8 With raptor and owl nests at ~150–350 m, routine construction is unlikely to cause material disturbance; nevertheless, avoid impulsive high-noise events (e.g., piling, rock-breaking) in early morning/evening during March–August where practicable.

During operation, adopt a dark-site approach (no routine night lighting; if required for H&S, use low-intensity, warm, down-shielded, timer-controlled lights).

- 5.9 Although outside the boundary, off-site treelines and small woodland blocks underpin the confirmed breeding by Tawny Owl and Green Woodpecker and foraging for Buzzard. Avoid any off-site vegetation works; within the site, retain and buffer any shared boundary features (fences/ditches/hedge bases) to prevent indirect damage and maintain connectivity.
- 5.10 Vegetation clearance within the array field outside March–August where feasible; if works must occur during this window, implement pre-works nesting checks and protect any active nests with standby buffers until fledging.
- 5.11 Keep the noisiest tasks to daytime, cluster them away from the field edge nearest the known off-site nests and any area adjoining previous Skylark activity; maintain a quiet corridor on that edge during the core breeding months.
- 5.12 A small rookery is present within woodland/treeline west of the array field (confirmed by occupied nests). No tree works are proposed; however, to avoid disturbance during colony establishment and breeding (Feb–Jun), high-noise activities and compounds will be located away from the rookery edge, and a quiet working corridor will be maintained along this boundary.
- 5.13 Standard spill prevention and silt control to protect ditches/low spots used for foraging.
- 5.14 The new boundary fence will be offset from the retained hedgerows.

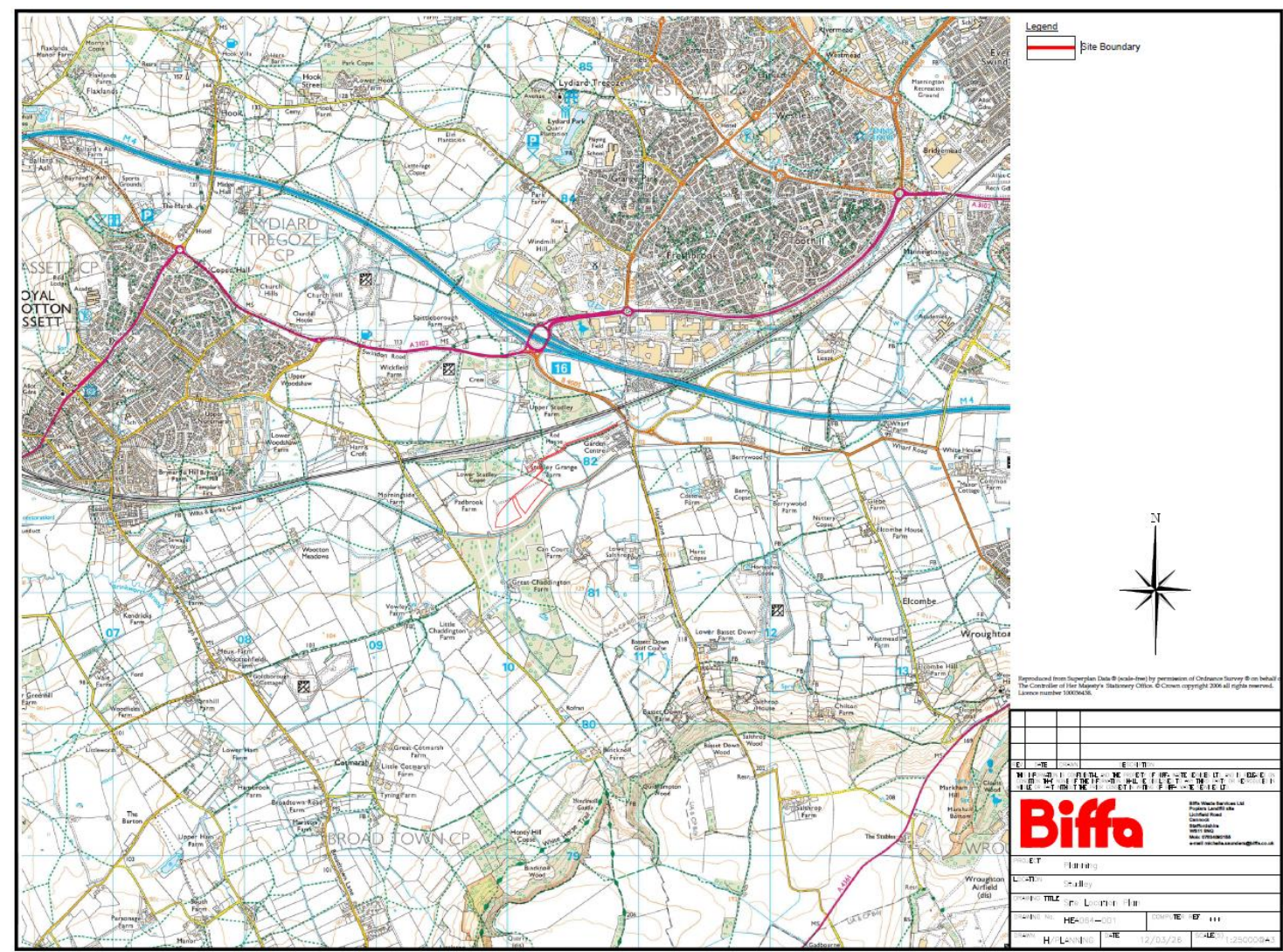
Birds - Operational habitat management

- 5.15 Convert the tightly grazed sward to a varied, invertebrate-rich grassland: spring cut if needed for establishment; thereafter a late-summer hay cut with arisings removed, plus rotational autumn/winter topping of narrow access strips only.
- 5.16 Introduce flower-rich tussocky margins (1–2 m) around the fence base and along the least-shaded internal tracks; leave micro-patches uncut each year.
- 5.17 Around inverter cabins or fence posts, add small-hole and terrace boxes to support confirmed passerines (e.g., House Sparrow, Blue/Great Tit) alongside dense shrub planting where shading won't conflict with generation.

Newts

- 5.18 Maintain the grassland on site short before any work is undertaken.
- 5.19 Should a Great Crested Newt be found at any stage then Natural England or the consultant ecologist will be called.
- 5.20 Details to be set out in a Construction Environment Management Plan (CEMP).

Appendix A: Site location

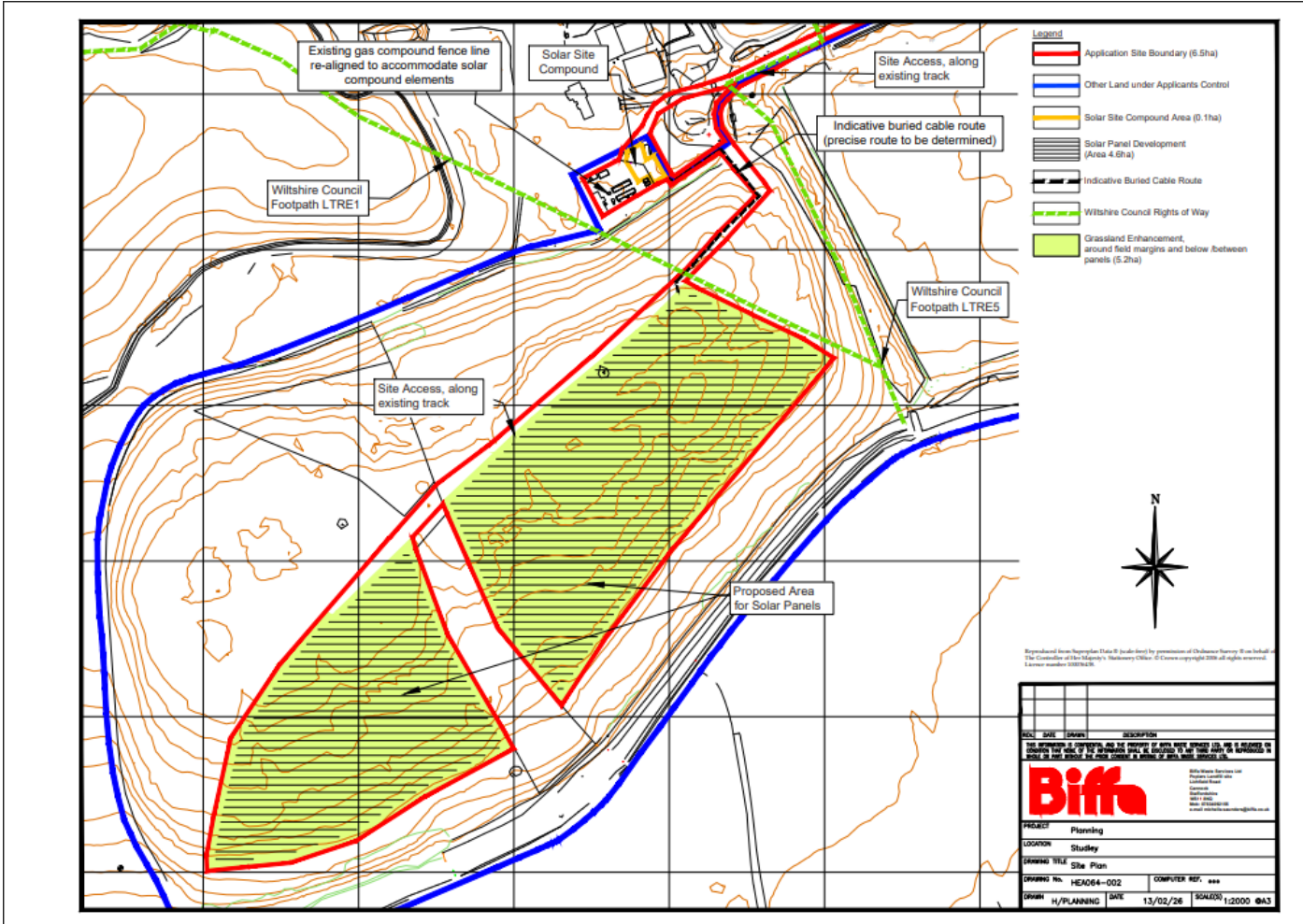


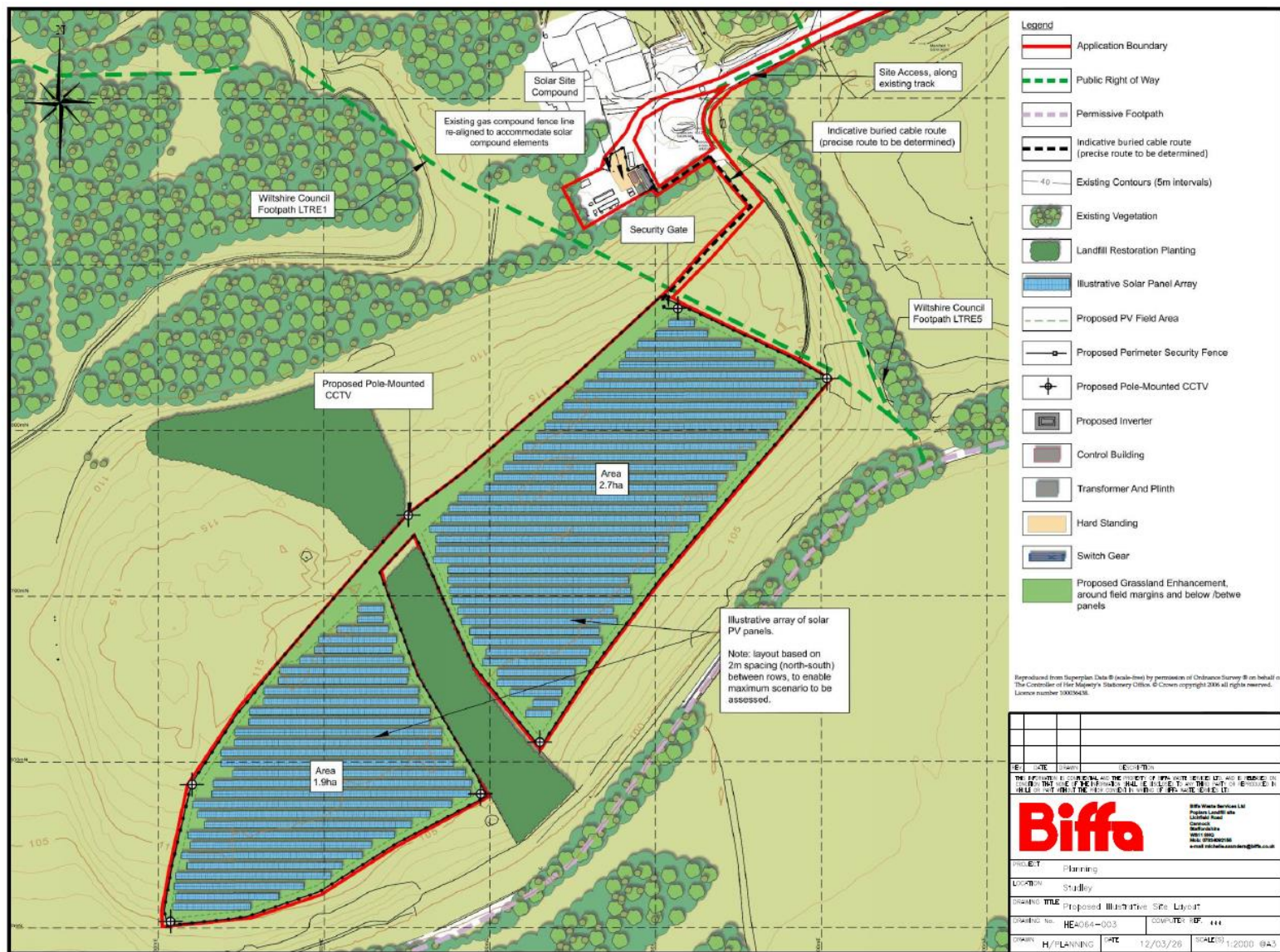
Appendix B: Original And Updated Red Line Boundaries





Appendix C: Proposals





Appendix D: Protected species legislation

Birds

All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended). This includes damage and destruction of their nests whilst in use, or construction. Species listed under Schedule 1 of the Act, such as barn owl, are afforded protection from disturbance during the nesting season.

The following 50 bird species are SPIs: lesser redpoll, aquatic warbler, marsh warbler, skylark, white-fronted goose, tree pipit, scaup, bittern, dark-bellied brent goose, stone-curlew, nightjar, hen harrier, northern harrier, hawfinch, corncrake, cuckoo, Bewick's swan, lesser spotted woodpecker, corn bunting, ciril bunting, yellowhammer, reed bunting, red grouse, herring gull, black-tailed godwit, linnet, twite, Savi's warbler, grasshopper warbler, woodlark, common scoter, yellow wagtail, spotted flycatcher, curlew, house sparrow, tree sparrow, grey partridge, wood warbler, willow tit, marsh tit, dunnoek, Balearic shearwater, bullfinch, roseate tern, turtle dove, starling, black grouse, song thrush, ring ouzel and lapwing.

Birds are also categorised according to their level of conservation concern indicated by their population status and stability. These are known as the Birds of Conservation Concern (BoCC4), Red, Amber and Green lists (Eaton et al, 2015). Where red and amber species are present, their conservation status should be considered in determining the likely impacts of proposed projects and plans.

The conservation status of birds recorded during the survey was assessed against the following criteria:

- EC Birds Directive 2009 Annex 1,
- Wildlife and Countryside Act 1981 (As Amended) Schedule 1, (Table 1, WCA1)
- Natural Environment and rural communities (NERC) Act 2006 – Section 41
- Red and Amber lists of Birds of Conservation Concern in England (BoCC4)

Bats

All bat species are protected under the Conservation of Habitats and Species Regulations 2017 (as amended), as detailed above. Bats are further protected under the Wildlife and Countryside Act 1981 (as amended), making it an offence to:

- Deliberately or recklessly damage or destroy any structure or place which bat(s) use for shelter or protection.
- Disturb bat(s) while occupying a structure or place which it uses for shelter or protection.
- Obstruct access to any structure or place which they use for shelter or protection.

Furthermore, seven bat species are SPIs, covered under Section 41 of the NERC Act 2006. These include western barbastelle, Bechstein's, noctule, soprano pipistrelle, brown long-eared, lesser horseshoe and greater horseshoe.

Hedgerow

Under the Hedgerows Regulations 1997 it is against the law to remove or destroy certain hedgerows without permission from the LPA, which are also the enforcement body for offences created by the Regulations. LPA permission is normally required before removing hedges that are at least 20 m in length, more than 30 years old and contain certain plant species. The authority will assess the importance of the hedgerow using criteria set out in the regulations. The regulations do not apply to hedgerows within the curtilage of, or marking a boundary of the curtilage of, a dwelling house.

Hedgerow is a Habitat of Principal Importance (HPI).

Habitats of Principal Importance

Section 41 of the NERC Act 2006 details 56 HPIs, of which the following could be present in south-east England: Lowland calcareous grassland, Lowland dry acid grassland, Lowland meadows, Lowland Heathland, Open Mosaic Habitats on Previously Developed Land, Lowland fens, Lowland raised bog, Reedbeds, Lowland beech and yew woodland, Lowland mixed deciduous woodland and Wet woodland.

Impacts to HPI are of material planning consideration.

National Planning Policy Framework (2024)

Details the Government's planning policies for England and how these should be applied, particularly to contribute to the Government's commitment to halt the decline of biodiversity. When assessing planning applications, LPAs should have regard to conserving and enhancing biodiversity by applying a number of principles, including:

- Avoiding impacts to biodiversity through appropriate site selection.
- Mitigating residual impacts.
- Encouraging the preservation and enhancement of biodiversity.
- Preventing the development of protected sites, such as SSSIs.
- Refusing permission where habitats that cannot be recreated, such as ancient woodland, would be lost.
- Encouraging good design that limits light pollution.
- Relevant paragraphs in the NPPF (2024) are detailed below.

Paragraph Number	Detail
187	Planning policies and decisions should contribute to and enhance the natural and local environment by: a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan); b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate; d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs; e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.
188	Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.
189	Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and National Landscapes which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas, and should be given great weight in National Parks and the Broads. The scale and extent of development within all these designated areas should be limited, while development within their setting should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas.
190	When considering applications for development within National Parks, the Broads and National Landscapes, permission should be refused for major development other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest. Consideration of such applications should include an assessment of: a) the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy; b) the cost of, and scope for, developing outside the designated area, or meeting the need for it in some other way; and c) any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.
191	Within areas defined as Heritage Coast (and that do not already fall within one of the designated areas mentioned in paragraph 189), planning policies and decisions should be consistent with the special character of the area and the importance of its conservation. Major development within a Heritage Coast is unlikely to be appropriate, unless it is compatible with its special character.
192	To protect and enhance biodiversity and geodiversity, plans should: a) 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 creation⁶⁹; and b) 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.
193	When determining planning applications, local planning authorities should apply the following principles:

	a) 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; b) 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; c) 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 reasons⁷⁰ and a suitable compensation strategy exists; and d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity 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.
194	The following should be given the same protection as habitats sites: a) potential Special Protection Areas and possible Special Areas of Conservation; b) listed or proposed Ramsar sites⁷¹; and c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.
195	The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (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.

Environment Act (2021)

The Environment Act (2021) achieved Royal Assent in November 2021.

An Act to make provision about targets, plans and policies for improving the natural environment; for statements and reports about environmental protection; for the Office for Environmental Protection; about waste and resource efficiency; about air quality; for the recall of products that fail to meet environmental standards; about water; about nature and biodiversity; for conservation covenants; about the regulation of chemicals; and for connected purposes.

The "10% net gain" requirement in the UK's Environment Act 2021 refers to Biodiversity Net Gain (BNG), which mandates that most new developments must deliver a 10% increase in biodiversity compared to the pre-development state. This is achieved by creating or improving habitats on-site, off-site, or through a combination of both, and the gain must be maintained for at least 30 years. The requirement became mandatory for major developments in February 2024 and for small sites in April 2024.

Countryside and Right of Way Act 2000

Amends and strengthens the Wildlife and Countryside Act 1981 (as amended). It also details habitats and species for which conservation measures should be promoted.

Natural Environment and Rural Communities Act 2006

Section 40 of the Act places a duty on local planning authorities to conserve and enhance biodiversity in England whilst carrying out their normal functions. Section 41 comprises a list of Habitats of Principal Importance (HPIs) and Species of Principal Importance (SPIs) which should be considered.

The LPA will need to have particular regard to any relevant local nature recovery strategies, and any relevant species conservation strategy or protected site strategy prepared by Natural England.

Hedgerows Regulations 1997

Under these regulations it is an offence to intentionally or recklessly remove, or cause or permits another person to remove, a hedgerow. Important hedgerows are defined in Section 4 of the Regulations. This includes hedgerows that have existed for over 30 years or satisfies at least one criteria listed in Part II of Schedule 1.