

Ecological Monitoring and Review – Year 4

Llanwern Solar, Gwent Levels

24 February 2025

Ecology
Arboriculture
Land Management



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Site Details

Site Name and Location	Llanwern Solar, Gwent Levels
Central OS Grid Reference	ST 374 849
Client	Gwent Farmer's Community Solar Partnership Ltd
Boundary	



Executive Summary

Site Location and Description	The Site is located within the Gwent Levels in south Wales, surrounded by farmland and south of the Llanwern Steelworks Site. The Site is split into three distinct parcels containing solar panels and mitigation land.
Aims	This report provides the results of Year 4 monitoring, and aims to establish the effectiveness of the management measures against agreed objectives set out in the Ecological Monitoring and Contingency Plan (Green Ecology, 2019) and any subsequent agreed remedial actions.
2024 Survey Work	Habitat monitoring, lapwing surveys, crane surveys
2024 Remedial Actions	👉 Repositioning & installing additional bat boxes 👉 Re-seeding of shrill carder bee wildflower areas 👉 De-silting of reens
Survey Findings	
Habitats (including grassland, hedgerows and watercourses).	Hedgerow and reen habitats are progressing towards target conditions as laid out in the LEMP Grassland habitats within crane and shrill carder bee arrays are progressing towards target conditions as laid out in the LEMP Grassland habitats within the solar arrays are not currently meeting target conditions for wildflowers and diverse sward.
Breeding lapwing	Lapwing monitoring returned presence of lapwing using the retained lapwing areas and lapwing mitigation areas although as expected lapwing were not recorded to be breeding on Site during 2024
Crane	No crane were recorded on Site (or in Wales) during the 2024 monitoring surveys, as per previous monitoring years.
Summary of Progress Towards Objectives	
Hedgerow and reen habitats are progressing towards favourable conditions, lapwing and crane mitigation fields and grassland underneath solar arrays will be on track with management.	
Adaptive Management Recommendations	
Grasslands containing solar panels	👉 Grass height to be maintained to prevent shading of panels 👉 Follow LEMP prescriptions for mowing and grazing to allow wildflowers to grow
Reens, ditches and hedgerows	👉 Manage hedgerows on rotation as per LEMP 👉 De-silt reens on rotational basis as per LEMP
Breeding lapwing	👉 Grassland sheep grazing to cease before breeding season commences (March) 👉 Wet up lapwing mitigation field using sluices if possible 👉 Follow Lapwing Management Plan
Crane	👉 Follow Common Crane Mitigation Plan, creating hay meadows for chick rearing
Shrill carder bee	👉 Follow LEMP guidance for promoting wildflowers

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1 Introduction

This report presents the results of the fourth year of ecological monitoring for Llanwern Solar, Gwent Levels. The surveys were commissioned by Gwent Farmers' Community Solar Partnership Ltd. The area within the application boundary is hereafter referred to as the 'Site', the Location of which is shown in **Appendix 3** as the 'Red Line Boundary'.

This document has been prepared to provide sufficient information to satisfy Condition 14 of the planning consent. This states:

ECOLOGICAL MONITORING & CONTINGENCY: Prior to the commencement of any works of ecological mitigation / compensation the applicant shall produce an 'Ecological Monitoring & Contingency Plan'. The plan shall set out the principle aims and objectives of the ecological work to be undertaken as part of this approval and shall identify a monitoring and reporting schedule that shall have regard to the objectives of the plan. Monitoring Reports shall be submitted to the Council within 3 months of their completion. Objectives shall be short term (5 years and less), mid-term (6-10 years) and long term (11-30 years). The plan shall allow for contingency actions to be taken if monitoring shows stated objectives are not being achieved. Any change in the ecological mitigation proposed for the site shall be submitted to and agreed in writing by the Council. Thereafter any contingency shall be carried out fully as agreed.

An Ecological Monitoring and Contingency Plan was produced in 2019 which sets out the ecological features to be monitored and the objectives for each feature (Green Ecology, 2019a). Since commencement of development, annual monitoring reports have been completed, of which this document presents Year 4.

1.1 Description of Proposed Development

The development consists of the erection of a solar energy hub, comprising ground mounted solar panels, underground cabling, grid connection hub and associated infrastructure for a temporary period of 40 years on land south of the Llanwern Steelworks site (central OS grid reference: ST 3780 8445), hereafter referred to as the 'Site'. The Site was granted planning permission on 8th November 2018 (DNS Application Ref: APP/G6935/A/16/3150137).

1.2 Aims

The overarching aim of the monitoring reports is to establish the success and effectiveness of the measures undertaken to avoid, mitigate or compensate for impacts to biodiversity related to the Llanwern Solar development and to provide contingency plans if monitoring shows that habitat management or habitat creation is deficient in any way.

In Year 4, in accordance with Ecological Monitoring and Contingency Plan (Green Ecology, 2019a), the following ecological features were the focus of monitoring:

-  Habitats (including grassland, hedgerows and watercourses);
-  Breeding lapwing; and
-  Crane.

In addition, following contingency measures identified during Year 3 monitoring (GE Consulting, 2023), the following was required during Year 4:

-  Repositioning & installing additional bat boxes.

Refer to **Section 3** for detailed objectives for each ecological feature.

2 Pre-Development (Baseline) Conditions

2.1 Pre-Development Survey Work

Table 1 summarises the surveys undertaken to provide the baseline data for the ecological features on- and off-Site, which are subject to this year's monitoring programme. Full details are provided within the relevant reports and plans submitted alongside the planning application and produced by ECUS, David Boyce (2015, 2017) and Green Ecology (2017).

Table 1: Baseline Surveys

Ecological features	Survey Types	Dates	Relevant Reports/ Plans
Habitats (including grassland, hedgerows and watercourses)	Extended Phase 1 Habitat Survey and ecological walkover	2016 and 2019	Phase 1 Habitat Map October 2016 (Ref: GB/6307/1) Environmental Statement 2016 (Ref: 1045592)
Breeding crane	Breeding Bird Surveys Transect Vantage Point Surveys	2015 and 2017	ES Appendix 12.4a Gwent Farmers Community Solar Scheme – Survey of Breeding Birds Gwent Levels Farmers' Community Solar Scheme, Whitson, Newport Breeding Bird Surveys 2017 (0419-BBS-MW) Environmental Statement 2016 (Ref: 1045592)
Breeding lapwing	Breeding Bird Survey	2015 and 2017	ES Appendix 12.4a Gwent Farmers Community Solar Scheme – Survey of Breeding Birds Gwent Levels Farmers' Community Solar Scheme, Whitson, Newport Breeding Bird Surveys 2017 (0419-BBS-MW) Gwent Levels Farmers' Community Solar Scheme, Whitson, Lapwing Management Plan, December 2019 (0419-LMP-MW) Environmental Statement 2016 (Ref: 1045592)

2.2 Pre-development Habitats

2.2.1 Solar Array Fields and Solar Array Margins

The baseline condition of these areas was improved and semi-improved grassland, bounded by reens and ditches, which together formed part of the coastal and floodplain grazing marsh (Priority Habitat Section 7, Environment (Wales) Act 2016) on the Gwent Levels which were grazed by both cattle and sheep and occasionally horses.

2.3 Lapwing Mitigation Area

These are the fields that have been designated as the managed lapwing mitigation area post-development (see **Appendix 3**) and their baseline condition was heavily grazed improved grassland bounded by reens and ditches.

2.3.1 Retained Lapwing Area

These are offsite fields that are to be used to compare impacts that the solar array construction and operation have on the breeding lapwing population. These fields are to continue to be sympathetically sheep-grazed post-development (see **Appendix 3**) to support breeding lapwing. The baseline condition for these fields was heavily grazed improved grassland bounded by reens and ditches.

2.3.2 Common Crane and Shrill Carder Bee Mitigation Fields

These are the fields that are now managed for wildflowers and hay to support crane and specific areas set out for shrill carder bee as 'Wildflower Seed Mix Areas' (**Figure 1**). The area totals 11.4ha and the baseline condition was improved grassland and semi-improved grassland at least partly bounded by reens and ditches/hedgerows.

2.3.3 Hedgerows

Varied; species-rich to species-poor and defunct with and without trees. Most qualified as a Habitat of Principal Importance under Section 7 of the Environment (Wales Act) 2016. Many of them have been unmanaged and have grown up on both sides of the boundary ditches and reens which has prevented ditch and reen management.

2.3.4 Reens and ditches and appropriate buffers

Watercourses on Site form Gwent Levels Whitson and Nash and Goldcliff SSSIs which are designated for their aquatic plants and invertebrates. The condition of the reens and ditches was variable across the Site with many of the smaller reens and ditches having suffered due to a lack of management, resulting in encroachment of hedgerows on both sides of many watercourses.

2.3.5 Breeding Crane

One pair of cranes bred in Wales for the first time in 400 years in 2016 close to the Site on private land. Cranes had been seen to use fields on Site for foraging and have also been observed in fields close to the north of the Site for rearing flightless young.

2.3.6 Breeding Lapwing

During 2015 and 2017 surveys, up to eight pairs of lapwing were found on or near to the Site accounting for almost 1% of the Welsh breeding population. Although only 2-4 pairs were recorded within the

development boundary, eight pairs were recorded in fields adjacent to the Site and potentially subject to disturbance.

3 Objectives

The objectives for each feature and statement of predicted change (i.e. summary of the likely net change in biodiversity that will occur as a result of the development once mitigation, compensation and enhancements are complete) and the timescales in which the objectives are to be completed are provided in **Table 2**. The objectives in **Table 2** originate from the LEMP (Green Ecology, 2019b), the Monitoring and Contingency Plan, Lapwing Monitoring Plan (Green Ecology, 2019c) and Common Crane Mitigation Plan (Green Ecology, 2019d). Locations of the different habitat parcels are shown in **Figure 1**.

Table 2: Ecological Features and management objectives from LEMP, Monitoring and Contingency Plan and Species-Specific Management Plans

Ecological Feature		Management Objectives	Statement of Predicted Change
Habitats (including grassland, hedgerows and watercourses).	Solar Array Fields (Retained Grassland)	<u>LEMP:</u> - Grass height to be maintained to prevent shading of panels; - Where practicable this will be undertaken with low intensity sheep grazing, rotated around the various field units or by mowing; - Grazing/mowing will be stopped or reduced to encourage flowering, leaving some grassland within field margins free to flower and set seed throughout spring – summer. - Any scrub or trees invading the grassland or encroaching towards the solar arrays would be removed by spot herbicide application. This will be undertaken annually. All tree and shrub removal should be undertaken outside of the bird nesting season (March-September). If unavoidable, a thorough check of the site for nesting birds should be undertaken prior to any works affecting vegetation.	The grasslands beneath the solar panels on Site will be maintained to provide breeding and foraging habitats for invertebrates and birds particularly in the 7-12.5m field margins.
	Lapwing Mitigation Area	<u>LEMP/Lapwing Management Plan:</u> - Establish the new stocking regime and rush management as per the Lapwing Management Plan. Hedgerow and vegetation removal and maintenance as per the Lapwing Management Plan. Any pesticide use ceased and herbicide use limited to spot treatments only. - An electric predator fence may be erected around the lapwing mitigation field once vegetation removal is complete and if the results of ecological monitoring up to year 5 indicates that this is required to protect nesting lapwing.	The off-Site Lapwing Mitigation Area will be successfully enhanced to provide short, extensively grazed damp pasture with low stocking rates between the lapwing breeding season; March to June. The grassland is rich in earthworms, leatherjackets, other insects and their larvae that provide an important food source for lapwing.

Ecological Feature		Management Objectives	Statement of Predicted Change
	Common Crane Mitigation Fields	<u>Monitoring and Contingency Plan:</u> - Establish new wildflower grassland. Establish hay meadow management regime. - Maintain late-flowering grassland and hay meadow management.	Late-flowering grassland habitat will be established for the benefit the rare shrill carder bee. This will also provide benefits to other invertebrate, bird and mammal species. Managing as hay meadow will improve the crane chick rearing habitat.
	Wildflower Seed mix Areas (within Common Crane Mitigation Fields)	<u>LEMP and Monitoring and Contingency Plan:</u> Creation, enhancement and manage habitat to improve the habitats available to terrestrial invertebrates, including shrill carder bee.	There is an increased abundance of shrill carder bee and an increased diversity and abundance of other invertebrate species, particularly those of national importance.
	Hedgerows	<u>LEMP:</u> Maintain new and retained hedgerows as per the LEMP.	Hedgerows will have good structure, provide connectivity for faunal species and support a diverse flora.
	Reens and ditches and appropriate buffers	<u>LEMP:</u> - Cast (de-silt) reens as required following consent from Natural Resources Wales (NRW). - Enhance adjacent buffer areas for flora and fauna	Ditches and reens will support a structurally diverse assemblage of vegetation. The sections of SSSI that fall within the Site boundary will be restored to favourable condition. This will benefit both aquatic and terrestrial invertebrates within the SSSI watercourses and improve habitats for other species including water vole and otter.
Breeding crane		<u>LEMP/Crane Mitigation Plan</u> Short-term (≤ 5 years) - Create and manage suitable chick rearing habitat (hay meadows) close to habitat already used. Monitor activity of nearby breeding cranes on site and the effectiveness of proposed mitigation in LEMP and Common Crane Mitigation Plan.	Crane (if present) are using the fields that are being managed as hay meadow to rear their chicks. Locations shown in Figure 1 .
Breeding lapwing		<u>LEMP/Lapwing Management Plan:</u> Create, manage and maintain offsite field habitat secured for lapwing breeding habitat and increase local breeding population. Monitor fields adjacent to Site known to hold breeding lapwing.	“Lapwing Mitigation Fields” and “Retained Lapwing Fields” located adjacent to the Site known to hold breeding lapwing will support breeding lapwing in the same numbers or greater than the baseline. Locations shown in Figure 1 .

4 Methods

4.1 Data collection for Year 4 of Monitoring Programme

Table 3 summarises the surveys undertaken to collect data for the fourth year of the Monitoring Programme. Full details are provided below.

Table 3: Summary of Year 4 Monitoring Data Collection Surveys

Survey Type	Date (s)
Habitat Monitoring	Specific survey June 2024 Spot monitoring February – August 2024
Breeding Lapwing	February – June 2024
Crane	February – August 2024

4.2 Habitat Walkover Method

A Site visit was made on 10th June 2024 to assess the solar array fields, margins and retained fields for progress against the objectives. The June specific survey followed previous methodology where photographs were taken at specific GPS points across the Site and general observations were made on the progress of habitats across the Site. Shrill carder bee and crane mitigation fields where late flowering-grassland and hay meadows are to be established respectively were also included (see **Appendix 3** for habitat locations; ‘Proposed new Wildflower Planting’ and ‘Proposed Hay Management’). The lapwing monitoring and mitigation fields were also assessed over the course of the monitoring surveys. Locations at which photographs were taken are shown in **Figure 2**, using the same locations as previous monitoring surveys, to compare changes over time.

Spot monitoring of the Site in 2024 involved general habitat observations during lapwing and crane monitoring surveys.

4.3 Breeding Lapwing and Crane Survey Method

The lapwing survey method was based upon lapwing species-specific guidance and generic breeding wader guidance as detailed in Gilbert *et al.* 1998, following the same methodology as the 2015 and 2017 breeding bird surveys.

The extent of survey for lapwing was over the ‘Lapwing Mitigation Area’ and ‘Retained Lapwing Area’ as shown in **Figure 3**. Both of these areas are separate from, but adjacent to, the array areas. Transects were plotted onto the relevant areas so that the surveyor was within 100m of all parts of the fields during the surveys. The survey season was extended to reflect the lapwing breeding season, dates and weather conditions for the ‘Proposed Lapwing Mitigation Area’ are summarised in **Table 4**.

Surveys for crane used the ‘look-see’ methodology where the surveyor followed a transect stopping and scanning for birds at regular intervals to record numbers of crane for a predefined area. The aim of the survey was to record any sign of these birds on the Site and in surrounding fields.

Surveys for both crane and lapwing occurred on the same day.

In addition to numbers of lapwing, counts were also made of any corvids using the fields to investigate whether or not the presence of these predators was a factor.

Table 4: Dates, times and weather conditions for breeding bird survey

Visit	Date	Surveyor	Time	Weather
1	23/02/2024	GV	15:30 – 16:30	5°C, 1-0 rain, cloud cover 8 Oktas, WSW 3Bf
2	26/03/2024	GV	17:15 – 19:00	10°C, 1-0 rain, cloud cover 8 Oktas, S 1Bf
3	26/04/2024	GV	11:00 – 13:00	12°C, 0 rain, cloud cover 6 Oktas, S 3Bf
4	30/05/2024	GV	10:00 – 12:00	14°C, 0 rain, cloud cover 6 Oktas, S 2Bf
5	26/06/2024	GV	10:00 – 12:15	25°C, 0 rain, cloud cover 0 Oktas, ESE 3Bf
6	23/07/2024	GV	11:00 – 13:00	19°C, 0 rain, cloud cover 7 Oktas, W 4Bf
7	30/08/2024	GV	10:30 – 12:00	21°C, 0 rain, cloud cover 4 Oktas, E 2Bf

GV = Gavin Vella.

4.4 Bats

Following a monitoring survey in 2023 during which many bat boxes were found to have been installed in either unsuitable locations or locations where vegetation had since rendered them unsuitable, a visit was undertaken in 2024 to remedy this matter. A site visit was made in June 2024 by Ken Neal BSc (Hons) PhD and Josh Gwynn (health and safety) to move four boxes in Array Area 3 that were identified as being positioned in unsuitable locations. A further four tree-mounted bat boxes were installed on appropriate trees at a suitable elevation, shown in **Figure 4**.

4.5 Limitations

Care has been taken to ensure that balanced advice is provided on the information available and collected during the study period(s), and within the resources available for the project. However, the possibility of important ecological features being missed due to survey timings, absence during surveys or the year of survey cannot be ruled out. In addition, the lack of evidence or records of protected species on Site does not necessarily preclude their presence.

During the habitat walkover survey, no fixed transects were walked and no quadrats were monitored, the key areas were monitored as per previous monitoring efforts, shown in **Figure 3** and detailed in **Appendix 1**.

Lapwing monitoring methods differed from the pre-works breeding bird surveys in 2015 and 2017 as the transect route no longer encompasses the solar array areas. However, as both baseline and monitoring surveys encompass the mitigation and monitoring fields the results are considered to be comparable.

5 Monitoring Results

5.1 Solar Array Fields (Retained Grassland)

5.1.1 Objective

- 🐾 Grass height to be maintained to prevent shading of panels;
- 🐾 Where practicable this will be undertaken with low intensity sheep grazing, rotated around the various field units or by mowing;
- 🐾 Grazing/mowing will be stopped or reduced to encourage flowering, leaving some grassland within field margins free to flower and set seed throughout spring – summer.
- 🐾 Any scrub or trees invading the grassland or encroaching towards the solar arrays would be removed by spot herbicide application. This will be undertaken annually. All tree and shrub removal should be undertaken outside of the bird nesting season (March-September). If unavoidable, a thorough check of the site for nesting birds should be undertaken prior to any works affecting vegetation
- 🐾 Creation, enhancement and management of habitats in the margins around the solar panels to improve the habitats available for terrestrial invertebrates, including shrill carder bee.

5.1.2 Survey Findings

All three array areas were being grazed with sheep as per the Landscape and Ecology Management Plan (LEMP) though it was difficult to assess number of livestock units per hectare owing to blocked lines of sight from the panel arrays. Furthermore, the sward was uniformly low with low species richness, dominated by grasses but with a few forbs typical of grazed grassland such as creeping cinquefoil, meadow buttercup and thistles (creeping, marsh and spear).

No scrub or trees were recorded within the grasslands, as per the objectives.

During Year 3, it was reported that there appeared to have been control of thistles with herbicide in Array Area 1 to the detriment of the shrill carder bee. The thistles had not recovered in Year 4 and were absent from the arrays, with a lack of the thistles, it is assumed that the shrill carder bee had reduced foraging opportunities.

The grassland surrounding the bug hotel in Solar Array Area 2 had been overgrazed, and areas of rank grasses had not been managed over the autumn and thus contained very few wildflowers leaving little food source for the shrill carder bee. Grazing/mowing had not been reduced during Spring-Summer to encourage flowering of the field margins, resulting in a lack of wildflowers, at the time of survey.

5.2 Lapwing Mitigation Area

5.2.1 Objective

- 🐾 Establish the new stocking regime and rush management as per the Lapwing Management Plan.
- 🐾 Hedgerow and vegetation removal and maintenance as per the Lapwing Management Plan.
- 🐾 Any pesticide use ceased and herbicide use limited to spot treatments only.
- 🐾 An electric predator fence may be erected around the lapwing mitigation field once vegetation removal is complete and if the results of ecological monitoring up to year 5 indicates that this is required to protect nesting lapwing.

5.2.2 Survey Findings

Management of the Lapwing Mitigation Areas followed the LEMP recommendations, as the grassland within the lapwing mitigation area was noted as having good sward height with suitable tussocky structure at the end of the survey season, however, it was noted that the sward was too short during the March-April surveys, likely due to overgrazing from sheep. The goals of the LEMP and Lapwing Management Plan are to promote breeding pairs and show an increase in lapwing numbers, it is noted that the grassland was considered overall to be too dry to adequately support breeding lapwing.

5.3 Wildflower Seed Mix Areas

5.3.1 Objective

- 🐝 Creation, enhancement and management to improve the habitats available to terrestrial invertebrates, including shrill carder bee.

5.3.2 Survey Findings

The Wildflower Seed Mix Area to the north-east of Array Area 2, was harrowed and over-seeded in late summer 2021 and had established well in 2023 with six species of grass and fifteen species of forbs identified in the sward, however during the 2024 surveys, it was reported that this area had been overgrazed and objectives are not been fully met due to the short sward and lack of species diversity within managed buffers. At the southern end of Array Area 1, within the Wildflower Seed Mix Area, there was a substantial 'margin' which has been allowed to develop into tall tussocks of grass but had few forbs in it, lacking species diversity.

The Wildflower Seed Mix Area within Array Area 1 was mown, rotavated and resown with wildflower seed on 22nd October 2024 when weather conditions were >10°C and dry. Works were carried out by Llanwern Solar Services Ltd (**Appendix 5**).

5.4 Hedgerows

- 🐝 Selected Hedgerow removal.
- 🐝 Plant and establish new hedgerow as per the LEMP.
- 🐝 Maintain retained hedgerow as per the LEMP.

5.4.1 Survey Findings

Hedgerows on the boundaries of each array area are generally unmanaged and have been allowed to grow tall promoting structural and botanical diversity with benefits for pollinating insects and wintering birds arising from the flowers and berries these hedgerows provide. Not all of the hedges within the array areas could be visited, but in array area 1, the retained hedges are being kept short as per the Monitoring and Contingency Plan.

5.5 Reens and ditches and appropriate buffers

5.5.1 Objective

- 🐝 Cast (de-silt) reens as required following consent from Natural Resources Wales (NRW).
- 🐝 Enhance the adjacent buffer areas for flora and fauna

5.5.2 Survey Findings

Reens were de-silted and reen buffers were rotavated and re-sown in areas 1, 2 and 3 on 22nd October 2024 when weather conditions were >10°C and dry. Works were carried out by Llanwern Solar Services Ltd (**Appendix 4**). Due to the hedgerow management, light is able to reach the reens which has promoted the growth of emergent and submerged vegetation.

In the buffer strips outside of the fencing, the sward was overall less structurally varied, lacking areas where the sward was under 200mm and above 350mm. In some locations, the overall sward height of 350-500mm is good with a generally greater species diversity compared to the array areas. This was particularly the case near to the array entrances in Array Area 3. This area has a good deal of potential to improve with further grassland management to reduce the dominance of grasses.

5.6 Common Crane and Shrill Carder Bee Mitigation Fields

5.6.1 Objective

-  Establish new wildflower grassland. Establish hay meadow management regime.
-  Maintain late-flowering grassland and hay meadow management.

5.6.2 Survey Findings

The grassland habitats within the crane mitigation areas for common crane are making steady progress to achieving the objectives set out within the Monitoring and Contingency Plan.

5.7 Breeding crane

5.7.1 Objective

-  Create and manage suitable chick rearing habitat (hay meadows) close to habitat already used. Monitor activity of nearby breeding cranes on site and the effectiveness of proposed mitigation in LEMP and Common Crane Mitigation Plan.

5.7.2 Survey Findings

No crane were recorded on Site during the 2024 surveys.

5.8 Breeding Lapwing

5.8.1 Objective

-  Create, manage and maintain offsite field habitat secured for lapwing breeding habitat and increase local breeding population. Monitor fields adjacent to Site known to hold breeding lapwing.

5.8.2 Survey Findings

The 'Lapwing Mitigation Area' was not found to support breeding lapwing in 2024. One lapwing was observed within this area during the June survey.

The 'Retained Lapwing Area' found a peak count of 17 wintering lapwing during the February visit, with a further 5 lapwing seen in the lower offsite field on the same visit. Three lapwing pairs (six individuals) were seen during the April survey. It is not known if breeding was successful onsite, but, there was one

record of a lapwing with chicks within the southern adjacent field during the June survey. See **Figure 3** for sighting locations.

Carrion crow and magpie were frequently recorded using the fields or perching on hedgerows. The number of corvids recorded in the survey is detailed in **Table 5** below.

Table 5: Number of corvids recorded

Visit	Mitigation area		Retained fields	
	Carrion crow	Magpie	Carrion crow	Magpie
February	0	0	0	4
March	0	0	1	2
April	2	4	0	2
May	0	4	1	2
June	0	1	0	4

Lapwing breeding could not be confirmed on the Site in 2024 and numbers overall are lower than the pre-development baseline though they had increased compared to 2022 and 2023, showing a positive trend.

5.9 Incidental Records

Although no shrill carder bee surveys were undertaken this year, a shrill carder bee queen was seen incidentally within the crane mitigation area during the April lapwing and crane survey visit, see **Figure 3**.

6 Analysis and Review

For each Ecological Feature subject to the monitoring programme, a summary of Year 4 progress against management objectives and where the objectives have originated is compared against the baseline statement of predicted change. The progress of the objectives is considered, and if it is deemed unlikely for the objectives to be met within the timescales set, this will trigger a need for contingency measures¹ to be implemented. See **Table 6**.

The responsible persons to action the contingency if required are identified as: Gwent Community Solar Partnership, Management Contractors via Wise Energy Environmental Analyst and landowners/tenant farmers via Wise Energy Environmental Analyst.

Table 6: A review of the progress of management objectives at the end of Year 4 of Ecological Monitoring

Ecological Feature	Objectives from Ecological Monitoring and Contingency Plan (Years 1 -5)	Objectives met	Objectives from LEMP	Objectives met	Progress against short-term objectives and future actions	Contingency Requirements
<u>Retained Grassland (Solar array fields)</u>	Establish late-flowering grassland habitats to benefit the rare shrill carder bee, a qualifying feature of both the Gwent Levels Whitson SSSI and Nash and Goldcliff SSSIs on which the entire development is located. This will also provide benefits to other invertebrate, bird and mammal species.	✓	Grass height to be maintained to prevent shading of panels.	✓	Grassland with a greater floral diversity is developing in the areas outside of the arrays. These areas should be cut at least once a year, no earlier than September and cuttings removed to decrease dominance by grasses. Numbers of livestock across the site are too high and should be kept to a minimum in summer, especially in Array Area 1.	A stricter regime of stock control will be implemented, as grazing levels within the arrays was too high and needs adjusting to promote growth of wildflowers. Spear thistle may have been treated with herbicide in 2023 and did not recover in 2024, thistles must be allowed to grow so that shrill carder bee have sufficient forage as recommended by the invertebrate monitoring reports.
			Where practicable this will be undertaken with low intensity sheep grazing, rotated around the various field units or by mowing.	✓		
	To establish managed hay meadows into late-July to improve habitats and provide food sources for terrestrial invertebrates	✓	Grazing/mowing will be stopped or reduced to encourage flowering, leaving some grassland within field margins free to flower and set seed throughout spring – summer.	✗		
			Any scrub or trees invading the grassland or encroaching towards the solar arrays would be removed by spot herbicide application. This will be undertaken annually. All tree and shrub removal should be undertaken outside of the bird nesting season (March-September). If unavoidable, a thorough check of the site for nesting birds should be undertaken prior to any works affecting vegetation.	✓		

¹ Note: contingency measures and remedial actions are emergency interventions out with the agreed management plan to get mitigation measures on track if they are deemed to be unsuccessful in the defined timescales.

Lapwing Area	Mitigation	The grassland is rich in earthworms, leatherjackets, other insects and their larvae that provide an important food source for lapwing.	X	Liaison with the landowner and contractors will take place to ensure the correct stocking levels to ensure the desired target conditions;	X	Cover of rushes is being managed at 10-30%. Rushes had been cut for the start of the season (March) but the fields were over-stocked with ewes and lambs, not cattle as prescribed in the LEMP, resulting in the sward being too short at the beginning of the breeding season.	As per the Monitoring and Contingency Plan, management of the fields is being adapted to try and achieve objectives by Year 5. Sheep will be removed entirely from the site during the breeding season (March-June inclusive) and attempts will be made to wet up the site by management of the on site sluice gates. It should be noted that this management prescription does rely on the assistance of NRW.
				Cattle should not be released directly into breeding wader fields after being over-wintered indoors, as they are excitable and likely to trample nests.	✓		
				Cattle should be outside for at least one week before being put onto breeding lapwing fields;	✓		
				By mid-March, grazing will aim for a short sward less than 5cm, with scattered area of bare ground and light hoof-printing;	✓		
				April-mid-July a slightly longer sward, but less than 7cm with scattered taller tussocks;	X		
				May need to remove stock for part if not all the period from 15th March to the end of April when birds are on eggs to avoid trampling; No field operations from 1st April to 1st August.	✓		
				Rush cover should comprise 10% to 30% cover and be well scattered across the area. Rush control will be undertaken if rush cover exceeds this.	✓		
				Rushes will be topped close to the ground using a tractor-based mower, retaining 10% uncut.	✓		
				Rush control should not start until August 1st (to account for possible late breeding snipe) when ground is not wet. Rushes will not be cut during the breeding season March 1st to August 1 st .	✓		
				Graze with cattle immediately after cutting to help break up the mat of cut rush.	✓		
				Tall trees and bushes within the hedgerow, scrub boundaries and any isolated trees e.g. hawthorns present in field centres will be felled as they can be used as look-out posts for avian predators such as corvids.	✓		

			New hedgerow growth will be cut back and the stumps retreated the following year. Where stumps fail to respond to herbicide, stumps will be manually removed.	✓		
			Where hedgerows are retained e.g. along Chapel Road, they be cut on a one – two-year rotation and kept to a height of no more than one – two metres	✓		
			Trees to be removed will be checked for their bat roost potential prior to felling and will be subject to further survey as required by the ecologist.	✓		
			If farmyard manure is applied, do not apply between 15th March and 30th June.			
			Do not apply any organic or inorganic fertiliser or lime between 15th March and 30th June.	✓		
			No application of pesticides or diluted sheep dip.	✓		
			Herbicides should only be applied to control noxious weeds by spot treatments only in line with NRW licence conditions.	✓		
			Do not graze stock that has been recently treated with an Avermectin (especially if this is a bolus treatment). This has a detrimental impact on dung and soil breeding invertebrates on which the birds feed.	✓		
<u>Shrill Carder Bee Mitigation Areas and Wildflower Seed Mix Areas</u>	Enhance habitats on Site for shrill carder bee a qualifying species of both Gwent Levels Whitson and Nash and Goldcliff SSSIs by creating late-flowering grassland areas.	✗	No or very low fertilizer inputs;	✓	Habitat enhancement has been undertaken. Effects of solar panels is being monitored. Yet to see a population increase.	None required Grazing to be delayed until end of September
			No summer grazing;	✗		
			Ensure that plentiful flower-rich forage habitat is available until late-September;	✗		
	Monitor the effects of solar panels on areas where shrill carder bee is known to be present. Other rarer bee species and terrestrial invertebrates present on Site will also be subject to monitoring simultaneously.	✓	If the weather conditions are suitable to cut and remove the crop as hay for animal feed then the grass will be baled and taken off site. If this is not possible due to weather constraints, then flailing will be used, height of cut: 50mm;	✓		

			Arisings: Left to dry and shed seed for 1-7 days before removal;	✓		
			Aftermath grazing following grass cutting if possible	✓		
<u>Hedgerows</u>	Removing selected hedgerows as per Hedgerow Removal Plan (preconstruction);	✓	Manage hedgerows on a regular, rotational basis to promote structural and botanical diversity;	✓	Hedgerow habitats are progressing towards target conditions.	Continued management of hedgerows through rotational basis, promotion of diverse ground flora.
			Provide on-going management of standard hedgerow trees will aim to promote mature trees, including dead-wood habitat;	✓		
	Establish new hedgerow to create visual screening to mitigate human and common crane visual impacts of the grid yard and battery storage area and to mitigate for the loss of hedgerow habitat for nesting birds as a result of proposed SSSI reen enhancements	✓	Provide visual screening where required and deliver good integration of the development into the landscape;	✓		
			Allow and encourage a diverse ground flora to develop along hedgerow bases.	✓		
<u>Reens, ditches and appropriate buffers</u>	Create a structurally diverse assemblage of vegetation along the ditches and reens on Site.	✗	Enhance the biodiversity of the ditch/ reen system;	✓	Reen habitats are progressing towards target conditions. Reen de-siltation	Continued management of ditches and reens through de-silting and mowing the buffer strips in the Autumn.
	To create a range of successional stages through management of small sections at a time following on from the hedgerow removal programme. This will benefit both aquatic and terrestrial invertebrates within the SSSI watercourses and improve habitats for other species including water vole and otter.	✓	Maintain the favourable status of the notified features of the SSSIs e.g. insects and plants;	✓		
	Operate a ditch and reen management programme in consultation with Natural Resources Wales (NRW) as per the LEMP.	✓	Maintain high water levels in summer;	✓		
			Enhance the adjacent buffer areas for flora and fauna.	✓		

<u>Common Crane Mitigation Fields</u>	Late-flowering grassland habitat will be established in the first 5 years post-construction for the benefit the rare shrill carder bee. This will also provide benefits to other invertebrate, bird and mammal species. Managing as hay meadow in the long-term (up to 40 years) will improve the crane chick rearing habitat.	✓	From March 15th to June 30th stocking density must not exceed one beast (cow/heifer/steer/bull) per hectare (ha) or five sheep /ha. Mixed grazing is acceptable.	✗	7.1 hectares of species-rich grassland have been gained. 4.3 hectares of grassland managed for hay. Grasses still appear to dominate in Year 4, but black knapweed was present as were numerous clovers and vetches. Incidental record of a foraging Shrill Carder Bee was seen during 2024.	None required based upon progress to date. Grass cutting and grazing is to be delayed and tied in with the <i>Shrill Carder Bee Mitigation Areas</i> and <i>Wildflower Seed Mix Areas</i> in late September.
			No or very low fertilizer inputs.	✓		
			Cease summer grazing.	✗		
			Manage mitigation areas to provide forage and cover until at least mid-August, but will likely be cut at same time as shrill carder bee grassland above.	✓		
			If the weather conditions are suitable to cut and remove the crop as hay for animal feed then the grass will be baled and taken off site. If this is not possible due to weather constraints, then flailing will be used.	✓		
			Arisings: Left to dry and shed seed for 1-7 days before removal.	✓		
			Aftermath grazing following grass cutting if possible.	✓		
<u>Breeding lapwing</u>	Create, manage and maintain <i>Lapwing Mitigation Fields</i> - habitat secured for lapwing breeding habitat and increase local breeding population.	✗	As for <i>Lapwing Mitigation Area</i> above		A decrease in the peak number of lapwing compared to baseline and a lack of breeding pairs. The ground was considered too dry for lapwing breeding preferences as outlined	None required however short- term objectives for off-Site mitigation field management must be achieved by Year 5, with lapwing numbers at least meeting those

	Monitor <i>Retained Lapwing Fields</i> adjacent to Site known to hold breeding lapwing.	✓			within the Lapwing Management Plan. Further work to improve the mitigation area is required.	of the baseline as per the Lapwing Management Plan. These targets do not look like they will currently be met unless there is a significant shift in the grazing regime along with changes to the drainage controls on site. Wetting the grassland by raising water levels using existing sluices within ditches around the Site to be explored.
<u>Breeding Crane</u>	Create and manage suitable chick rearing habitat (hay meadows) close to habitat already used.	✓	No or very low fertilizer inputs;	✓	No record of cranes in Wales during the breeding season in 2024. Maintain current management of fields.	None required.
			Cease summer grazing;	✓		
			Manage mitigation areas to provide forage and cover until at least mid-August, but will likely be cut at same time as shrill carder bee grassland above;	✓		
	Monitor activity of nearby breeding cranes on site and the effectiveness of proposed mitigation in LEMP and Common Crane Mitigation Plan.	✓	If the weather conditions are suitable to cut and remove the crop as hay for animal feed then the grass will be baled and taken off site. If this is not possible due to weather constraints, then flailing will be used;	✓		
			Arisings: Left to dry and shed seed for 1-7 days before removal;	✓		
			Aftermath grazing following grass cutting if possible	✓		

7 Year 3 Remedial Actions

Bat boxes have been erected around the Site. Boxes that were in unsuitable locations or positions have been moved to more suitable locations (**Figure 4**).

Additional bat boxes have been erected. Vegetation growth (e.g. ivy) that had blocked bat access to the boxes has been cleared.

8 Conclusions & Discussion

8.1.1 Summary

While the habitats within the array fields are showing a trend of progressing, they are not at peak condition yet, which is to be expected this early in the monitoring process. Ongoing management to the reens and grassland is likely to increase diversity of invertebrates over time and this should have a benefit for protected species such as shrill carder bee, bats and breeding bird.

The grassland habitats within the crane and shrill carder bee areas are making steady progress to achieving the objectives set out within the Monitoring and Contingency Plan. However, the grasslands within the other areas of the Site are not currently meeting the target of establishing a diverse species assemblage; overgrazing and removal of key forage species combined with not removing rank grasses to allow wildflowers to persist are detrimental to the grassland goals but these short term issues can all be remedied with simple measures.

The Monitoring and Contingency Plan does not stipulate bat monitoring beyond year 3 post-construction. In year 10 the Plan stipulates monitoring for breeding birds and water vole only, but it is suggested that further bat monitoring is included in the schedule to investigate whether bat numbers have changed once the grassland habitats are more mature and the reen enhancements have fully developed as bats are considered to be a good gauge for the overall health of an ecosystem.

8.1.2 Hedgerows

Hedgerows area progressing towards the targets as set out within the LEMP and Ecological Monitoring and Contingency Plan. Management through regular rotational trimming to promote structure and diversity and promote a biodiverse ground flora is required.

8.1.3 Reens and ditches and appropriate buffers

Boundary features are progressing towards the targets as set out within the LEMP and Ecological Monitoring and Contingency Plan. Continued management of ditches and reens through de-silting and mowing the buffer strips in the Autumn as per the LEMP.

8.1.4 Grassland containing solar panels

Livestock density in Array Area 1 may be higher than optimal for achieving sensitive low-intensity grazing. However, planned management actions, including cutting and/or grazing specific margin areas during autumn 2024 to winter 2025, are expected to enhance ecological outcomes. These actions aim to reduce grass dominance and promote the growth of forbs such as meadow vetchling, which support shrill carder bees and other pollinators. Additionally, ongoing efforts to monitor and adjust grazing practices will further align with the objective of enhancing grassland ecological value and supporting target species.

Grassland sward height across the Site is to be maintained to prevent shading of panels. Where practicable this will be undertaken with low intensity sheep grazing, rotated around the various field units or by mowing to ensure that vegetation does not cover the panels. Grazing/mowing will be stopped from April-mid September inclusive to encourage flowering, leaving some grassland within field margins free to flower and set seed throughout spring – summer.

The Year 3 monitoring report (GE Consulting, 2024) and Terrestrial Invertebrate Report (Boyce, 2023) suggested that shrill carder bee decline was due to weed control of spear thistle which had reduced the principal food source for shrill carder bee. As there were few wildflowers reported during the 2024 habitat surveys and no thistles reported, it is deemed that the bees will be foraging offsite. In future it is suggested that thistles are only controlled if they will impact on the panel arrays and will be left alone elsewhere.

Any scrub or trees invading the grassland or encroaching towards the solar arrays would be removed by spot herbicide application. This will be undertaken annually. All tree and shrub removal should be undertaken outside of the bird nesting season (March-September). If unavoidable, a thorough check of the site for nesting birds should be undertaken prior to any works affecting vegetation.

To ensure that the solar panel areas are not overgrazed, sheep are to be removed in late March-early April. The sward is to be cut in late September, and arisings are to be left for a minimum of seven days to allow seeds to disperse. Sheep grazing to commence once autumn grass cutting is completed as per the LEMP.

8.1.5 Lapwing Mitigation Area and Breeding Lapwing

Monitoring of lapwing has shown that the mitigation area has potential to support lapwing as a single bird was observed in this area, however it is the retained lapwing areas that have shown the most promise. Further measures to improve the lapwing mitigation area are required to achieve the short-term objectives. These should largely focus on stricter control of stocking densities, including exclusion of livestock during the breeding season, along with attempts to wet up parts of the area.

During the 2015-2017 surveys, 2-4 lapwing pairs were recorded within the development boundary and eight pairs were recorded in fields adjacent to the Site, the 2024 survey results showed a peak of 6 pairs within the 'Retained Lapwing Area' and a further 2 pairs (one with chicks) within adjacent land. There is therefore sufficient evidence to confirm that the solar development has had no detrimental impact on breeding lapwing utilising land adjacent to the solar scheme. Further measures to improve the lapwing mitigation area to achieve the short-term objectives are discussed in **Section 9**.

Counts of corvids on the mitigation area and the fields between arrays 2 and 3 did not show any great difference in numbers and therefore it appears unlikely that their presence is having an influence on the absence of lapwing from the mitigation area.

The use of sluices to wet up the fields to produce wet scrapes would be beneficial for this species. Raising the water table will bring earthworms and other soil bound invertebrates closer to the surface in range of foraging lapwing (which have relatively short bills). To facilitate the rearing of chicks, lapwing benefit from shallow sloping scrapes which encourage invertebrates on which lapwing chicks feed.

8.1.6 Shrill Carder Bee mitigation areas

Although no invertebrate surveys were undertaken this year, a single occurrence of a shrill carder bee queen was seen along the roadside hedgerow of the crane mitigation area. Further invertebrate monitoring is planned for Year 5 and will provide information on a developing trend.

8.1.7 Common crane mitigation fields

For a fourth year running no crane were recorded on Site but this was owing to a lack of breeding pairs in Wales as a whole in 2024, this comes after records of no breeding pairs in Wales during 2023. Nonetheless, the management of the fields to the east of array area 2 for this species has benefits for other wildlife by creating a floristically rich habitat.

9 Adaptive Management (contingencies and remedial actions)

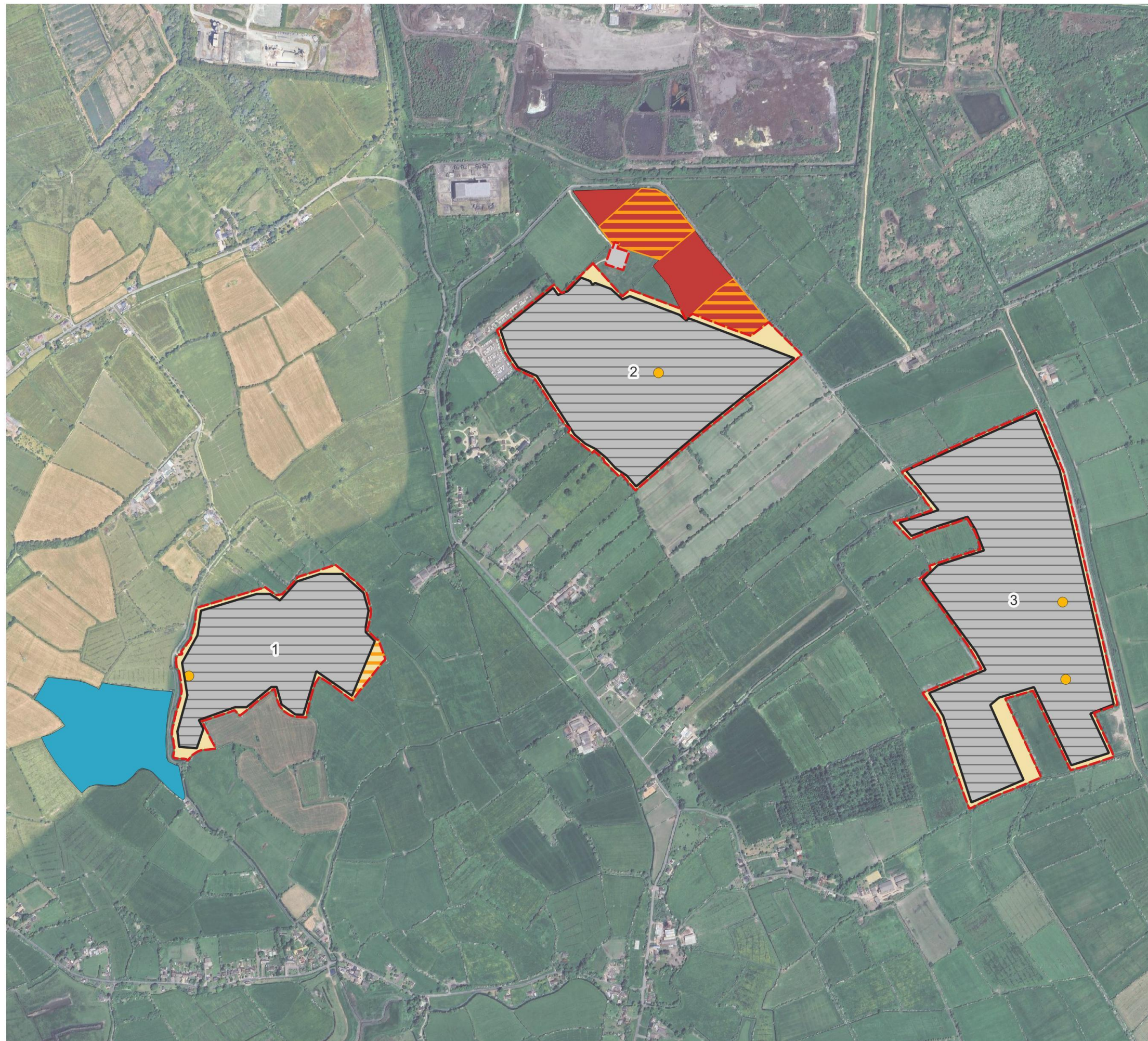
Discussions are ongoing between Wise Energy, GE Consulting and landowners to implement additional measures into the ‘Lapwing Mitigation Area’ to increase the potential for the area to attract lapwing. Wise Energy have consulted with NRW and are also seeking advice from RSPB on how best to achieve the conservation objectives for lapwing. Installing an electric fence around the Lapwing Mitigation Area as suggested in the LEMP is not considered necessary as there was no evidence of terrestrial predators preventing lapwing from using the site. The requirement for an electric fence can be reviewed once lapwing have attempted to nest. Additional measures include a stricter regime for controlling stock densities and explorations as to how the sluice gate situated within the lapwing area could be manipulated to generate some areas of wetter ground that will favour lapwing.

Further monitoring of bat activity and bat box occupation is recommended to investigate the on-going success of the habitat changes being undertaken.

A revised LEMP will be prepared in Year 5 which seeks to provide clear management objectives and specifications, drawing on the learnings from Years 1 – 4.

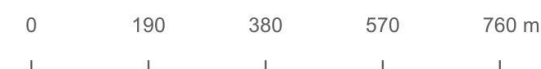
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Key:

-  Site Boundary
-  Fence Boundary Around Solar Arrays
-  Bug Hotels
-  Wildflower Seed Mix Areas
-  Solar Array
-  Vegetated buffers outside of the fencing associated with the Reens and Ditches
-  Common Crane and Shril Carder Bee Mitigation Fields
-  Lapwing Mitigation Fields
-  Substation



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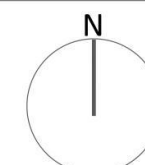
Figure 1:
Ecological Features and Habitats

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Llanwern Solar, Gwent Levels

Client:
Gwent Farmer's Community Solar Partnership Ltd

Date:
24/2/2025
Ref:
0419-EMR-F1

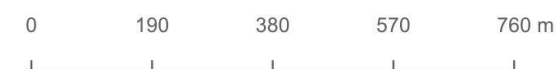
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Revision:
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Key:

- Site Boundary
- Lapwing Mitigation Area
- Retained Lapwing Areas
- Crane Mitigation Area



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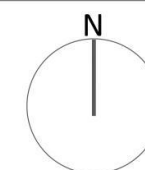
Figure 2:
Habitat Walkover Photograph Locations

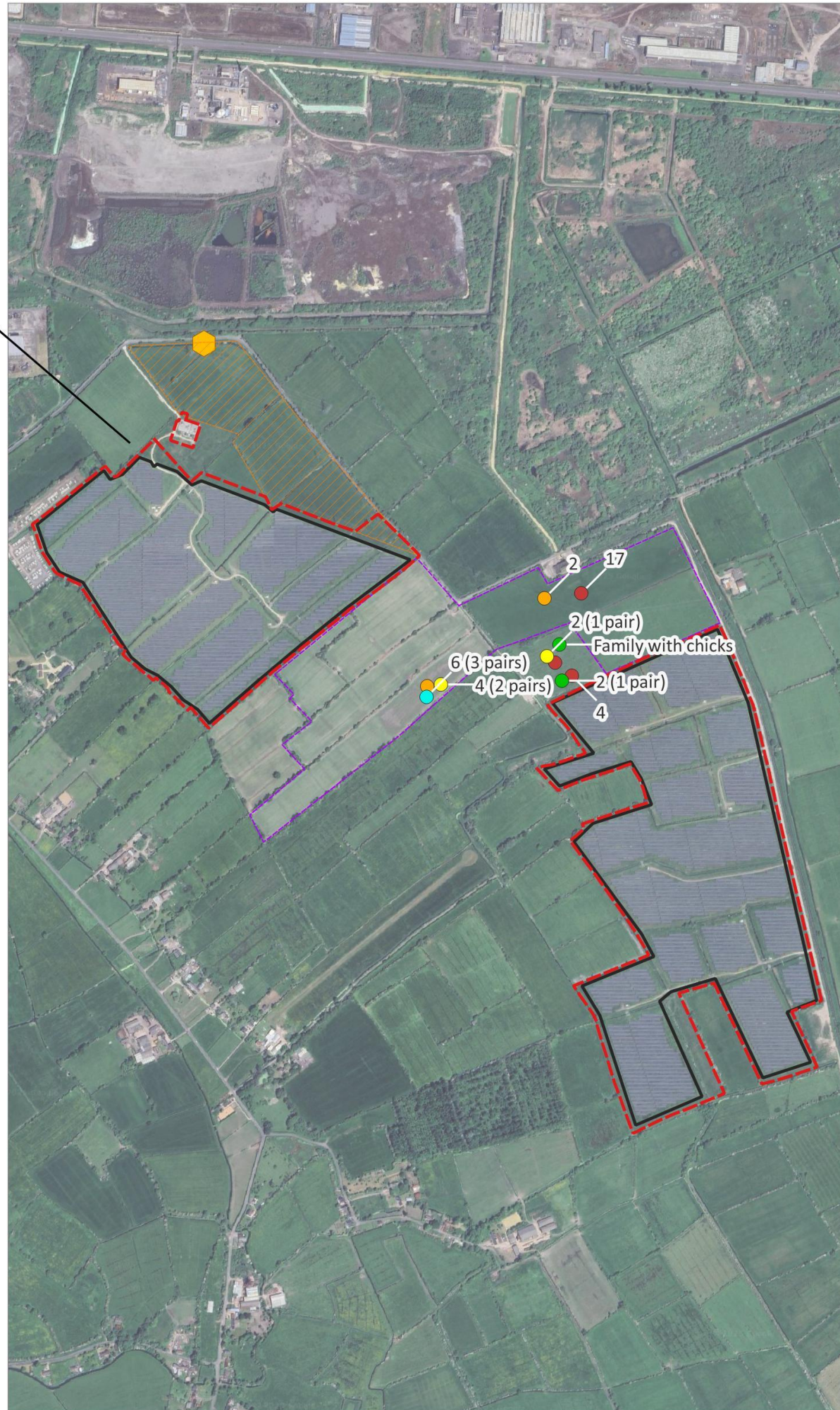
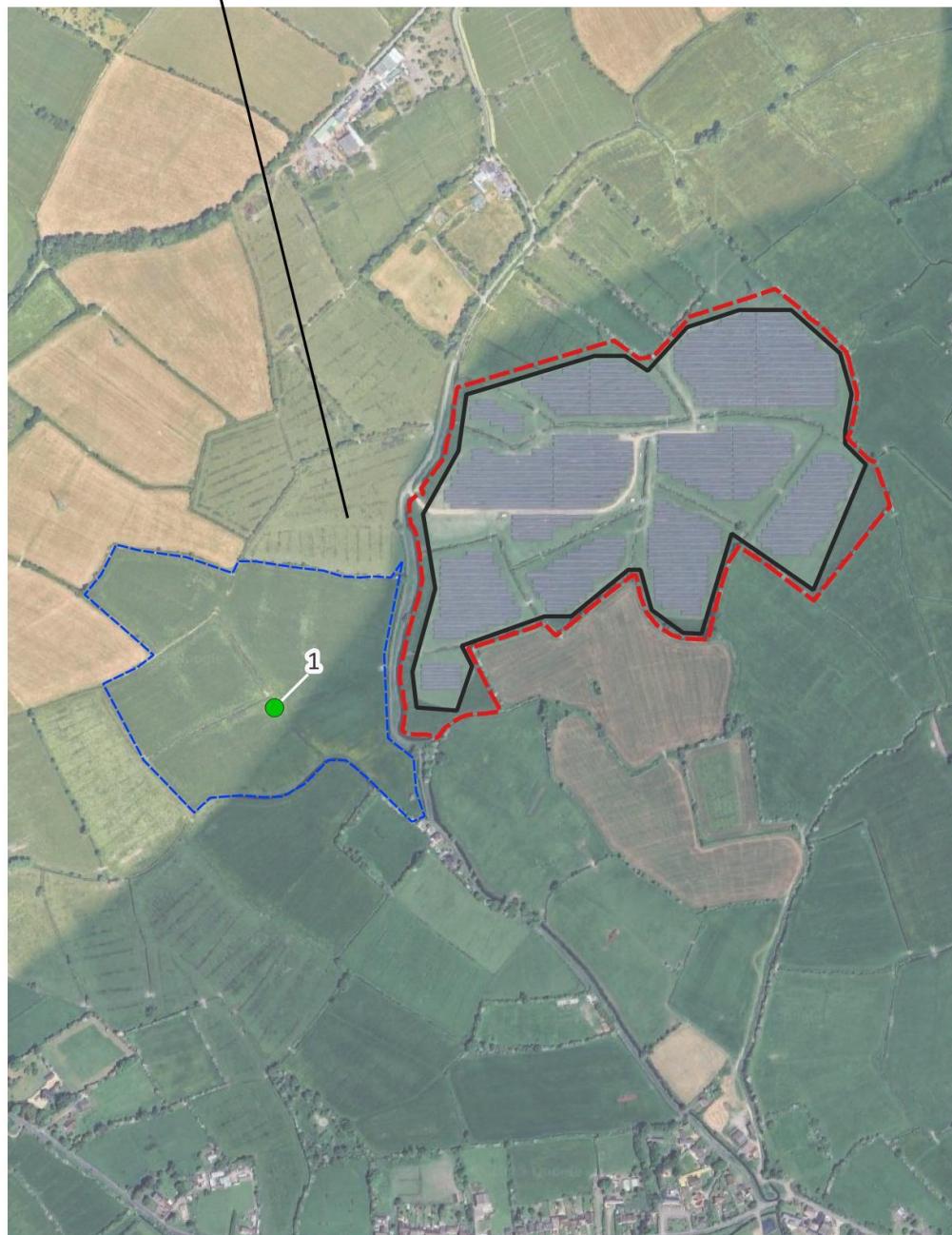
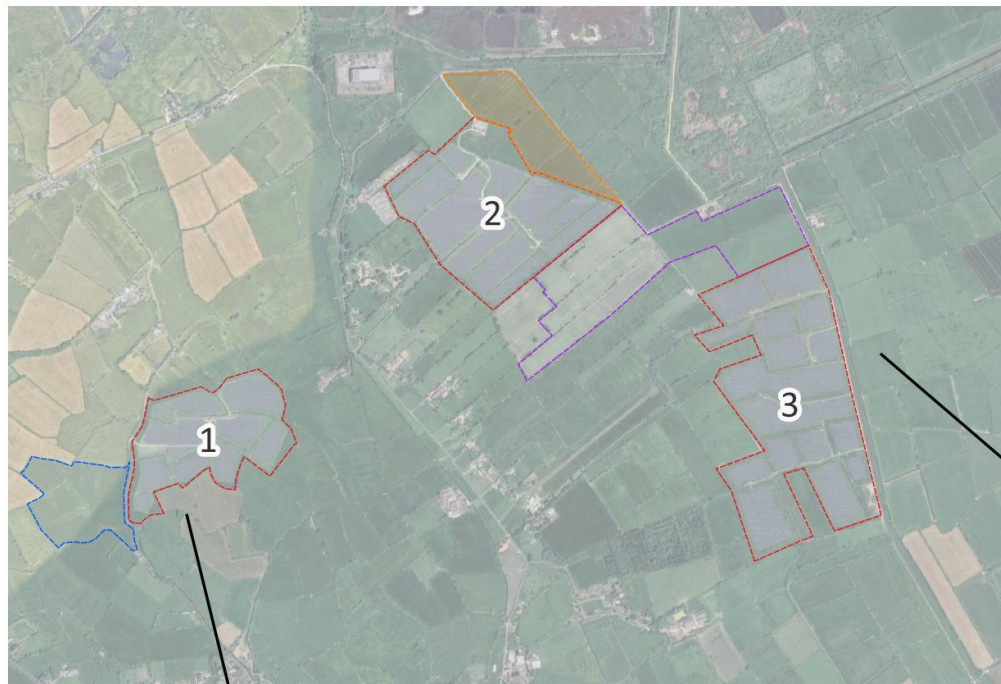
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Llanwern Solar, Gwent Levels

Client:
Gwent Farmer's Community Solar Partnership Ltd

Date:
19/2/2025
Ref:
0419-EMR-F2

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Revision:
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Key:

- Site Boundary
- Lapwing Mitigation Area
- Retained Lapwing Areas
- Crane Mitigation Area

Lapwing Sightings 2024

- February
- March
- April
- May
- June
- July
- ⬡ Shrill Carder Bee 2024



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Figure 3:
Breeding Lapwing Survey Results 2024

Project:
Llanwern Solar, Gwent Levels

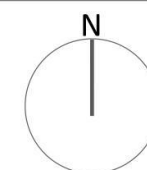
Client:
Gwent Farmer's Community Solar Partnership Ltd

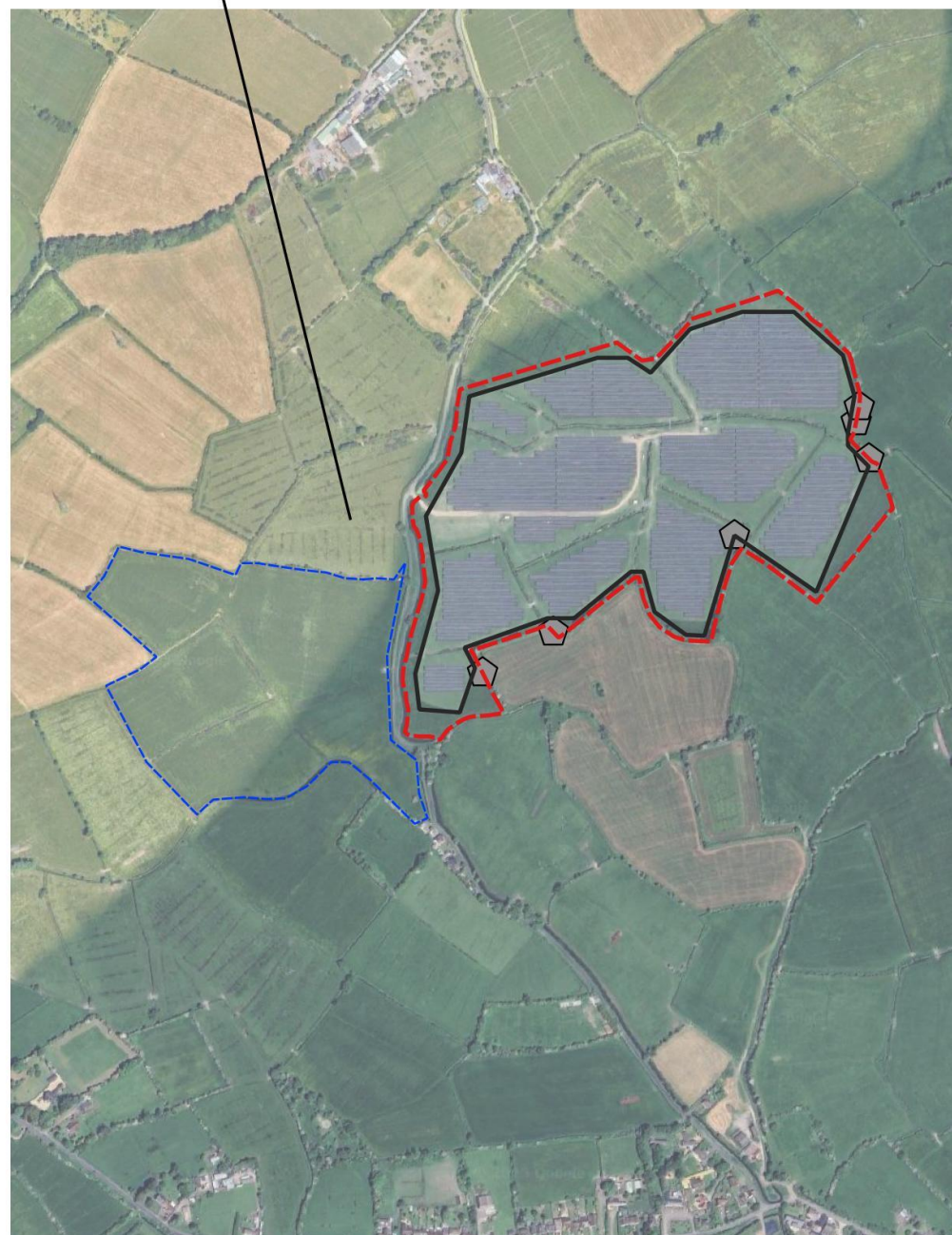
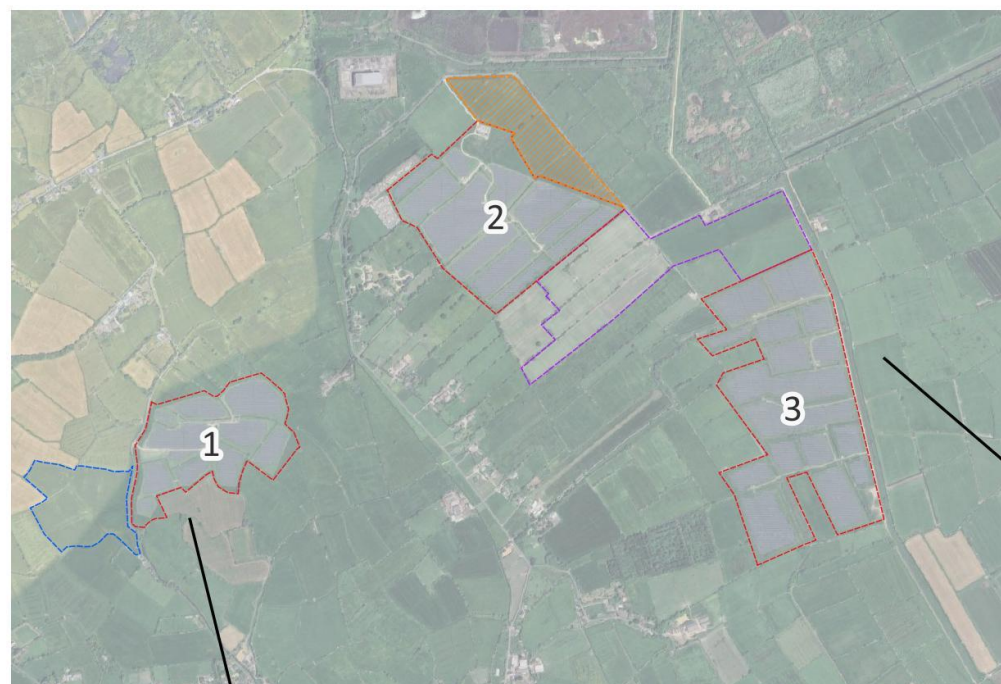
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0419-EMR-F3

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Revision:
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Key:

-  Site Boundary
-  Lapwing Mitigation Area
-  Retained Lapwing Areas
-  Crane Mitigation Area
-  2024 New Bat Boxes
-  2024 Relocated Bat Boxes
-  Pre-Existing Bat Box Locations
-  Previous Bat Box Location



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& Bluesky, Maxar Technologies. Map data ©2024 Google

Figure 4:
Bat Box Locations

Project:
Llanwern Solar, Gwent Levels

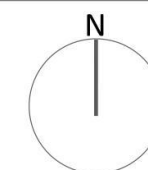
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Date: 19/2/2025

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Ref:
0419-EMR-F4

Revision:
1



Appendix 1 – Habitat Summaries and Photographs

Results 2024

The below table contains habitat summaries with photographs relating to locations in **Figure 2**.

Table 1.1 Habitat summaries

Shrill Carder Bee Mitigation Areas	
Photos 1 and 2 below were taken of the triangular section of land to the east of array 2, which has been reseeded to increase the abundance of wildflowers to benefit shrill carder bee and other invertebrates. These photos show that the fields whilst rich in grasses, do not contain the abundance of wildflowers needed to support shrill carder bee.	
1. 	2. 
Crane Mitigation Area	
The fields that have been set aside for crane have been allowed to grow tall. As recorded in 2023, there is still a much greater predominance of grasses as well as legumes and knapweed indicating that management is adjusting the flora to the desired condition.	
3. 	
Retained grassland (array area)	

The 'Bug hotel' habitat was installed in the summer of 2023 on the grassland within the arrays. However, the land directly around the bug hotel in array area 1 has been overgrazed with no wildflowers.

Sufficient light was reaching underneath the solar panels to allow growth of vegetation though this was lower than the areas immediately around the arrays. The shade was also allowing small pools of water to persist which supported rushes in some cases.

6.



7.



8.



9.



Lapwing Mitigation Area

The tussocky grassland sward within the lapwing mitigation area is suitable for lapwing, however the ground is too dry for their breeding preferences.

10.



11.

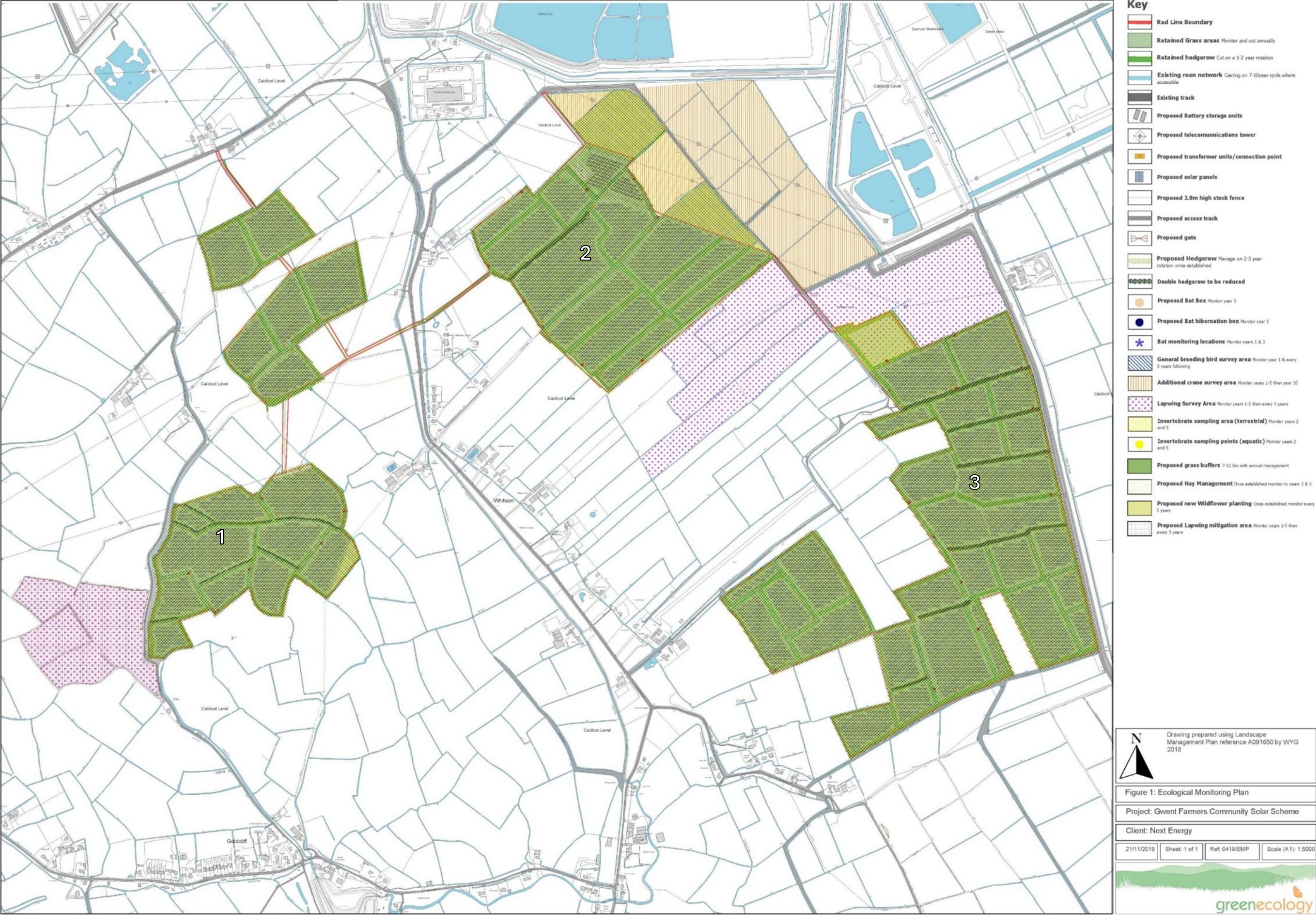


Appendix 2 – List of Fauna Mentioned in Text

Fauna

Common name	Scientific name	Recorded on Site?
Brandt's bat	<i>Myotis brandtii</i>	✓
Brown long-eared bat	<i>Plecotus auritus</i>	✓
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	✓
Crane	<i>Grus grus</i>	✓
Lapwing	<i>Vanellus vanellus</i>	✓
Leisler's bat	<i>Nyctalus leislerii</i>	✓
Myotis bat species	<i>Myotis sp.</i>	✓
Nathusius' pipistrelle	<i>Pipistrellus nathusii</i>	✓
Noctule	<i>Nyctalus noctula</i>	✓
Otter	<i>Lutra lutra</i>	
Shrill carder bee	<i>Bombus sylvarum</i>	✓
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	✓
Water vole	<i>Arvicola aquaticus</i>	
Whiskered bat	<i>Myotis mystacinus</i>	✓

Appendix 3 – Ecological Monitoring Plan



Appendix 4 – Ditch Silt Reinstatement

Llanwern Solar Services Ltd

Complete

Score	2 / 2 (100%)	Flagged items	0	Actions	0
Site	Llanwern Solar Site Ditch Silt Reinstatement				
Area	Area 1, 2 and 3				
Prepared by	D Price				
Date	22.10.2024 14:20 BST				
Reference Number	PO240237				

Conditions		1 / 1 (100%)
Site Access		Good
Ground conditions		Good
Weather conditions		Dry >10°C
Site security fencing		N/A

Scope of work		1 / 1 (100%)
Was the scope of works completed	Yes	
If no, what work has not been completed		
Reason for work not completed		
Machinery used	Tractor, rotavator, power harrow, broadcaster and roller.	
Operator	D Price, A Price	
Any other observations/issues	No	

Photos



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 7



Photo 8



Photo 9



Photo 10



Photo 11



Photo 12



Photo 13



Photo 14



Photo 15

Media summary



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 7



Photo 8



Photo 9



Photo 10



Photo 11



Photo 12



Photo 13



Photo 14



Photo 15

Appendix 5 – Shrill Carder Bee Wildflower Meadow Management

Llanwern Solar Services Ltd

Complete

Score	1 / 2 (50%)	Flagged items	1	Actions	0
Site	Llanwern Solar Site, SCB Mitigation				
Area	Area 1				
Prepared by	A Price				
Date	22.10.2024 12:12 BST				
Reference Number	PO 240277				

Flagged items

1 flagged

Conditions

Site Access

Poor

Conditions	1 flagged, 0 / 1 (0%)
Site Access	Poor
Ground conditions	Dry
Weather conditions	Dry and >10°C
Site security fencing	N/A

Scope of work		1 / 1 (100%)
Was the scope of works completed	Yes	
If no, what work has not been completed		
Reason for work not completed		
Machinery used	Tractor, rotavator, power harrow, broadcaster and roller	
Operator	A Price, D Price	
Any other observations/issues	Perimeter gate in very poor condition	

Photos



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 7



Photo 8



Photo 9



Photo 10



Photo 11



Photo 12



Photo 13



Photo 14



Photo 15

Media summary



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 7



Photo 8



Photo 9



Photo 10



Photo 11



Photo 12



Photo 13



Photo 14



Photo 15

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Ecology

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Land Management

