Plas Power Solar and Energy Storage Project

3.0.10 Biodiversity Net Gain Report

February 2024

DNS Ref: DNS/3253253

PLAS POWER SOLAR AND ENERGY STORAGE PROJECT

Biodiversity Net Gain Report

BNG Report
1
February 2024

Document status

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Approval for issue

9 February 2024

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Figures

1 INTRODUCTION

1.1 Purpose and Scope of This Report

1.1.1 RPS Planning and Development were commissioned by Lightsource bp to undertake a Biodiversity Net Gain (BNG) Assessment of the Proposed Development at the Plas Power Estate at Wrexham, North Wales. Lightsource bp proposes the installation of a Solar and Energy Storage Project at the site. The site is located to the West of Wrexham, centred at grid reference SJ 301 501.

1.1.2 While a Biodiversity Net Gain Assessment is not required for developments in Wales, the assessment has been undertaken on behalf of Lightsource bp to provide additional information on the biodiversity status of the baseline site and the Proposed Development.

1.1.3 The Biodiversity Net Gain Assessment provides a comparison of the values (as defined by the BNG habitat scores) of the site prior to development and following development, habitat creation and enhancement. The assessment was carried out using the Biodiversity Metric V4.0 published on the Natural England website which takes into consideration where habitat will be gained, lost or enhanced as a result of the Proposed Development. The BNG baseline assessment was completed in 2023 prior to the publishment of the Statutory Metric to provide information on the baseline habitat value and inform the design and Illustrative Landscape and Ecology Management Plan of the site.

1.1.4 The Biodiversity Metric provides Biodiversity Units calculated based on the habitat type, area or length, distinctiveness, condition, ecological connectivity and strategic significance. For enhanced or created habitats the time required and difficulty of establishing the habitat are also taken into consideration.

1.1.5 Each of the existing habitat areas and their condition are defined in the BNG metric with reference to the rationale for the selected condition in the assessor notes. The BNG metric should be viewed with reference to the Habitat Plan (Figure 1) which shows the baseline habitats, the Landscape Strategy (Figure 2) and the BNG Metric calculations (RPS, 2024).

2 BASELINE HABITATS

2.1.1 The baseline site comprises sheep grazed improved grassland and arable fields bounded by hedgerows. A field drain adjoins part of the site boundary and field ditches are present within a few fields. The extent of the habitats are shown on the Habitat Plan (Figure 1) and further information on habitats is provided in the Preliminary Ecological Appraisal (RPS, 2023).

2.2 Habitat Descriptions

Modified Grassland

2.2.1 The eastern and southern areas of the site comprise 11 improved grassland pasture fields. The fields are dominated by perennial rye-grass *Lolium perenne*. Rarely present within the grassland were other grass species such as creeping bent *Agrostis stolonifera*, annual meadow-grass *Poa annua*, and Yorkshire fog *Holcus lanatus* and forbs such as spear thistle *Cirsium vulgare*, white clover *Trifolium repens* and creeping buttercup *Ranunculus repens*.

2.2.2 The grassland is grazed by sheep. It lacks tussocks or variation in the sward height. The majority under 10 cm in height. The grassland is free of scrub, invasive species and extensive areas of damage or bare ground.

2.2.3 The pasture fields classify as in Moderate condition under the BNG condition criteria.

2.2.4 Two small areas of semi-improved grassland are present at the north of the site. Both fields have a low species diversity, characterised by Yorkshire fog, creeping bent, cock's-foot *Dactylis glomerata* and hogweed *Heracleum sphondylium*. Species present which are indicative of sub-optimal condition include nettle *Urtica dioica*, spear thistle and creeping buttercup.

2.2.5 The grassland has a tussocky structure and scrub, bracken and invasive species are absent, but there are some areas of bare ground and damage from vehicle movements.

2.2.6 The semi-improved grassland classifies as in Poor condition under the BNG condition criteria.

Arable

2.2.7 The northern and western areas of the site consist of nine arable fields used as grass ley and crop production. The field margins are less than 1m in width on average.

2.2.8 The habitat is classified as 'Non cereal crops' and 'Temporary grass and clover ley'. Habitat conditions are not applied to arable habitats under the BNG condition criteria.

Unsealed Tracks

2.2.9 Bare ground farm tracks are present throughout the site. The tracks are categorised as 'Artificial unvegetated, unsealed surface'. Habitat conditions are not applied to this habitat under the BNG condition criteria.

Hedgerows

Native Hedgerows

2.2.10 There are 27 hedgerows within the site which fall into the following categories in the BNG Assessment according to the level of species richness, association with ditches and the presence and density of larger trees:

- species-rich native hedgerow;

- species-rich native hedgerow with trees;
- species-rich native hedgerow with trees - associated with bank or ditch;
- native hedgerow;
- native hedgerow - associated with bank or ditch;
- native hedgerow with trees - associated with bank or ditch;
- native hedgerow with trees.

2.2.11 The majority hedgerows classify as one of the categories of native hedgerows with less than 5 woody species, 22 hedgerows in total.

2.2.12 Most are classified as Moderate condition under the BNG condition criteria but the five hedgerows with wider field margins classify as Good condition.

2.2.13 The majority of the native hedgerows adjoining the section of the site south of the A525 are typically dominated by hawthorn *Crateagus monogyna*. Other hedgerow species include holly *Ilex aquifolium*, hazel *Corylus avellana*, damson *Prunus domestica*, bramble *Rubus fruticosus* and gorse *Ulex* sp. Several of the hedgerows have gaps along their length.

2.2.14 Seven hedgerows within the survey area are species-rich with 5 or more woody plant species represented in the hedgerow. The majority of these are located within the northern section.

2.2.15 Species frequently present within the species-rich hedgerows include: hazel, sycamore *Acer pseudoplatanus*, ash *Fraxinus excelsior*, holly, English oak *Quercus robur*, blackthorn *Prunus spinosa*, field rose *Rosa campestre* and elder *Sambucus nigra*. Less frequent species include: willow *Salix* species., bramble, cherry *Prunus* sp., alder *Alnus glutinosa*, plum *Prunus* sp., field maple *Acer campestre*, apple, beech *Fagus sylvatica* and elm *Ulmus* sp.

2.2.16 The majority of hedgerows within the northern section include mature and semi-mature trees, typically sycamore, oak and ash. Fewer large trees were present in the central area.

2.2.17 The majority of the hedgerows adjoin short-grazed pasture or arable and the hedge-base flora is typically species-poor characterised by common nettle, broadleaved dock and cleavers *Galium aparine*.

2.2.18 Two hedgerows adjoin a small stream and several adjoin field ditches.

Mixed Scrub

2.2.19 A small linear section of dense scrub is present between two arable fields within the site. The scrub is up to 15m in width and comprises hawthorn, blackthorn and bramble. The areas of scrub have a dense structure, but lack structural diversity and have a limited ground flora.

2.2.20 The mixed scrub habitat classifies as being in Poor condition.

Individual Trees

2.2.21 Several scattered broadleaved trees are present within the site. This includes five oak and willow classified as being Medium sized and Good condition.

2.2.22 Six young silver birch *Betula pendula*, alder and fruit trees are also present at the south of the site and are classified as being Small sized and Moderate condition.

2.2.23 The trees are all in good health and the medium sized trees have features such as deadwood, loose bark and ivy with value for invertebrates.

Field Drain

2.2.24 A field drain runs between the southern boundary of an arable field within the site and the A525. To the west the drain is unshaded with shallow banks supporting tall ruderal vegetation. The eastern section is shaded by an overhanging hedgerow and has steep grassy banks. The drain had a water depth of 5cm during the survey walkover and the water quality appeared good.

2.2.25 The drain lacks signs of physical damage. Algae is absent though the emergent and marginal plants are limited. A stand of Japanese knotweed *Reynoutria japonica* is present on the bankside.

2.2.26 The drain is classified as Poor condition under the BNG condition criteria.

2.3 Baseline Biodiversity Unit Scores

2.3.1 The baseline site achieves the following scores:

- Score of **273.59** Habitat Units.
- Score of **49.02** Hedgerow Units.
- Score of **2.25** River Units.

3 HABITATS WITHIN THE PROPOSED DEVELOPMENT

3.1.1 The Proposed Development will largely comprise grazed improved grassland bounded by perimeter fencing. There will be a mown grassland buffer between the perimeter fencing and field boundaries.

3.1.2 Biodiversity Areas will also be created where a range of habitats will be created with the aim of providing resources with value for wildlife. The extent of the habitats are shown on the Illustrative Landscape and Ecology Masterplan (Figure 2).

3.2 Habitat Descriptions

Modified Grassland

3.2.1 The Proposed Development will largely comprise grazed grassland.

3.2.2 The retained grassland should at least maintain its Poor condition.

3.2.3 Where solar panels are installed in existing arable fields, these will be sown with a grazing mixture which will include a range of grasses and forbs. The grassland will be sheep grazed or mown and is expected to achieve at least Moderate condition.

3.2.4 The two small areas of semi-improved grassland at the north of the site will be retained. Both areas will be subject to sheep grazing, with several solar panel arrays installed in the smaller of the two areas. Areas of bare ground would be left to be naturally recolonised by grasses and herbs. The condition of the areas is expected to increase to Moderate.

3.2.5 The above conditions have been assessed based on a precautionary approach and it is possible that the grasslands will achieve a higher condition. For example where there is low intensity grazing there may be an increase in the species diversity or structural variation which could result in Moderate or higher condition being achieved. Given the large extent of the grassland, there would be potential for a significant increase in Habitat Units across the site where a higher condition is achieved.

Other Neutral Grassland

3.2.6 Two fields within the Proposed Development will be subject to enhancement to achieve Fairly Good condition Other Neutral Grassland classification. Measures will be undertaken to reduce the nutrient status of the soil and it will be harrowed and reseeded with a suitable grassland mixture containing a range of grasses and forbs. The fields will be sensitively managed through low intensity sheep grazing or a sensitive cutting regime (such as an early spring and late summer / early autumn cut). The management will aim to create a tussocky structure with greater species diversity compared to the existing short, grazed pasture.

3.2.7 Grassland between the perimeter fence of the Proposed Development and site boundary will be cut on an infrequent basis to encourage a tussocky structure and greater species diversity to develop. The condition of the grassland is anticipated to increase to achieve at least Fairly Good condition.

3.2.8 The margins of the arable fields and several larger sections within the existing grazed fields will be sown with a meadow mixture. These will be subject to low intensity management to encourage the development of a taller and more varied sward with greater species diversity and are expected to achieve Fairly Good condition.

3.2.9 Sections of woodland wildflower mixture will be sown between the perimeter fencing and woodland edges to increase the species diversity of the grassland within the site. The grassland will be sensitively managed and is expected to achieve Fairly Good condition.

3.2.10 Areas of wildflower rich grassland and tussocky grassland will be sown in the Biodiversity Areas. These will be subject to low intensity grazing or a sensitive cutting regime with the aim of creating

higher value grassland with a good species diversity and varied structure. These areas are expected to achieve at least Fairly Good condition.

Winter Cover Crop

3.2.11 Several areas of former grassland and arable will be sown with a winter cover crop to provide foraging resources for birds over winter. Habitat conditions are not applied to this habitat.

Hedgerows

3.2.12 Hedgerows will be retained and protected within the Proposed Development.

3.2.13 New native species hedgerows will be planted within the operational site including in the Biodiversity Areas. A mixture of native woody species will be planted.

3.2.14 Retained hedgerows at the north of the site include mature and semi-mature trees which will be retained. The sensitive management of mature trees will minimise tree surgery operations.

3.2.15 All hedgerows will be sensitively managed to promote the development of dense structure with fruiting and flowering shrubs which would achieve at least Moderate condition.

3.2.16 Hedgerows which currently achieve Good condition will be maintained at this condition.

3.2.17 The management of grassland adjoining many of the hedgerows to create a tussocky structure is expected to result in an increase in their condition to at least Fairly Good.

Individual Trees

3.2.18 Existing scattered broadleaved trees will be retained and sensitively managed to maintain their existing condition.

3.2.19 Approximately 50 new native trees will be planted throughout the site. These will be maintained at Moderate condition.

Mixed Scrub

3.2.20 Native shrubs will be planted within the Biodiversity Areas and at the edges of fields with solar arrays. These will be managed to promote the development of sections of dense scrub. The scrub is expected to achieve Moderate condition.

Ponds

3.2.21 Three new ponds will be created with Biodiversity Area 1, creating a new habitat type within the site. The pond margins will be planted with a range of marginal native species. The ponds will be managed to achieve at least Moderate condition.

Field Drain

3.2.22 The field drain will be retained and unaffected by the development, with its existing condition retained.

Unsealed tracks

3.2.23 There will be a small increase in the extent of unsealed tracks within the Proposed Development. Tracks will be created through the fields to provide vehicle access to the solar arrays and infrastructure during the operational phase. Habitat conditions are not applied to this habitat.

Hardstanding and Buildings

3.2.24 Areas of hardstanding and buildings will be created to facilitate the Proposed Development. Habitat conditions are not applied to this habitat.

3.3 Post-development Biodiversity Unit Scores

3.3.1 The Proposed Development will achieve the following scores:

- Score of **449.62** Habitat Units.
- Score of **84.20** Hedgerow Units.
- Score of **2.25** River Units.

3.4 Potential for Further Biodiversity Net Gain

3.4.1 The retention and creation of grassland across the site provides opportunity for a significant further increase in biodiversity value.

3.4.2 There is potential for areas of grassland beneath solar panels to achieve a greater condition than has been predicted under a precautionary basis in this assessment.

3.4.3 Should all areas of grassland across the site achieve Moderate condition or higher, there would be potential for a total of up to **827.33** Habitat Units to be achieved.

3.5 Management and Monitoring Plan

3.5.1 The biodiversity objectives and management prescriptions for habitats within the Proposed Development are detailed within the Landscape and Ecology Management Plan along with a programme of monitoring.

3.5.2 Monitoring targets will be aligned to BNG target condition and will relate to measurable attributes which will be reported to the LPA.

3.5.3 The biodiversity monitoring and reviews of management outcomes will document the status of the habitats, inform modifications to specific management plan actions, where appropriate, and identify the need for remedial measures. This objective and target led approach with periodic checks on the management approaches will be integral to initially achieving and then maintaining the target conditions over the long term.

4 CONCLUSIONS

4.1.1 The baseline site largely comprises sheep grazed improved grassland, categorised as Modified Grassland in Poor condition along with arable (grass leys and crop fields). Small sections of semi-improved grassland in Poor condition are also present.

4.1.2 The fields are bounded by hedgerows, most of which are in Moderate condition with some classified as Good condition.

4.1.3 Solar arrays and associated infrastructure will be installed within the fields. The grass leys and crop fields will be sown with a grazing mixture. Grassland beneath the solar panels will be sheep grazed or mown and is expected to achieve Moderate condition.

4.1.4 Two of the existing improved fields will be enhanced through reseeding and sensitive management to increase their biodiversity value. The fields will be enhanced to Moderate condition Other Neutral Grassland.

4.1.5 The semi-improved grassland will be sensitively managed and its condition is expected to increase to Moderate.

4.1.6 A small amount of arable and improved grassland will be converted to tracks and built infrastructure.

4.1.7 Biodiversity Areas will be created, which will include sections sown with a mixture of wildflower grassland and a tussocky grassland mixture. These will be managed to achieve Fairly Good condition.

4.1.8 Additional areas of higher value grassland will be created throughout the wider site, including areas sown with tussocky grassland, woodland edge grassland and meadow grassland seed mixtures. These will be managed to achieve Fairly Good condition.

4.1.9 Three new ponds will be created within Biodiversity Area 1 and managed to achieve Moderate condition.

4.1.10 The field ditches and drain will be retained and protected.

4.1.11 Existing hedgerows will be retained and protected. Where the adjoining grassland will be managed to develop a higher species diversity the hedgerow condition is expected to increase to Good.

4.1.12 New native species hedgerows will be created throughout the site and managed to achieve Moderate condition. New tree and shrub planting will be undertaken throughout the site.

4.1.13 The Proposed Development will result in the following Biodiversity Net Gain:

- The habitat unit score will increase from **273.59** to **449.62** Habitat Units, providing an overall total on site net change of **64.34%**.
- The hedgerow unit score will increase from **49.02** to **84.20** Hedgerow Units, providing an overall total on site net change of **71.76%**.
- The river unit score will remain unchanged at **2.25** River Units.

4.1.14 Where grassland within the site achieves a higher condition than predicted under a precautionary approach in this assessment, there is potential for a gain of up to **827.33** Habitat Units. This would provide an overall net change of **202.40%.**

4.1.15 A Landscape and Ecology Management Plan has been prepared for the development which includes a programme of monitoring to the LPA.

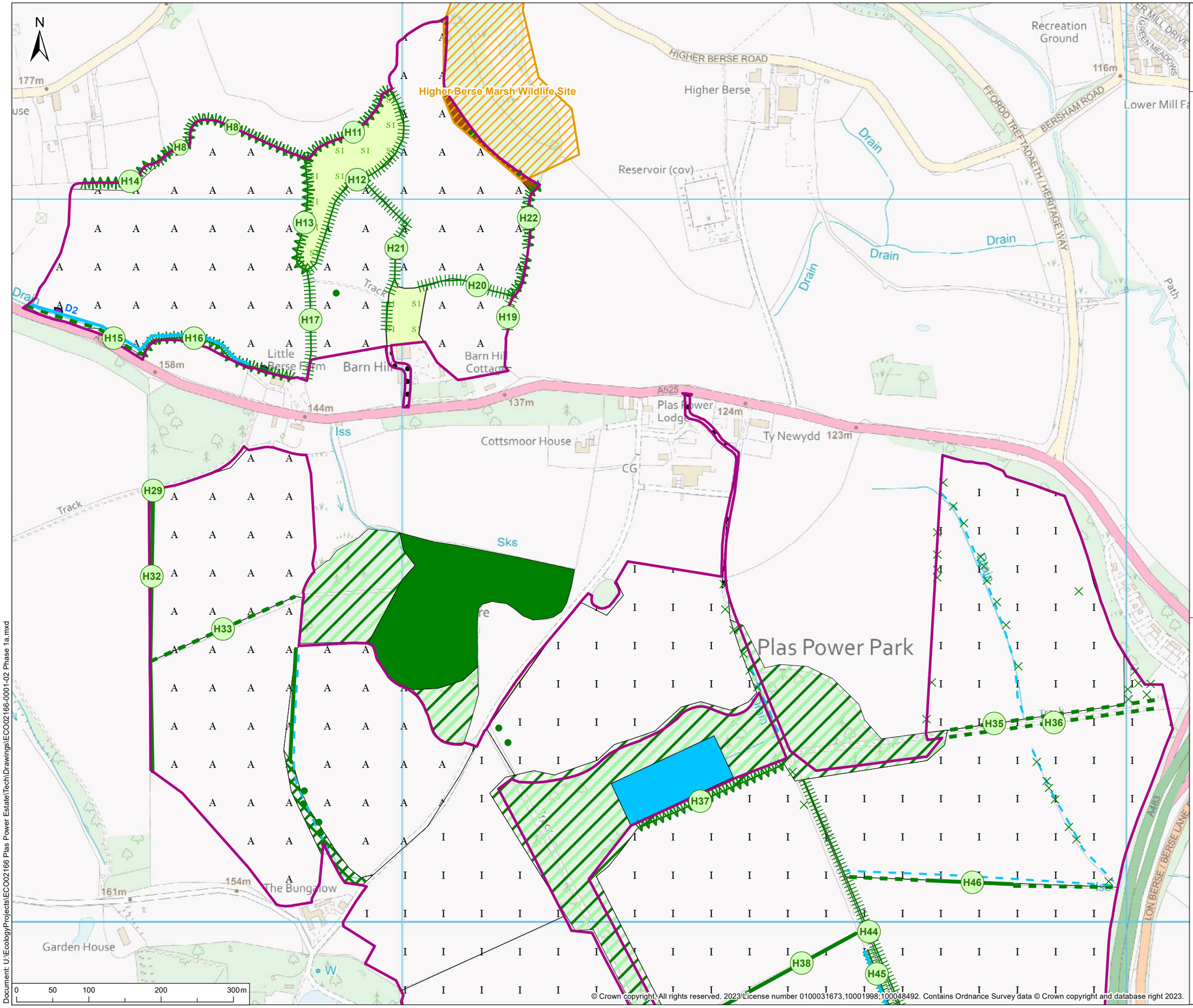
4.1.16 The habitat monitoring will follow an objective and target led approach integral to initially achieving and then maintaining the target conditions over the long term.

REFERENCES

RPS (2023). Preliminary Ecological Appraisal: Plas Power Estate.

RPS (2024). Plas Power BNG Metric.

FIGURES



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- Survey Boundary
- Wildlife sites
- A — Arable
- Bare ground
- Bracken - continuous
- Broadleaved woodland - semi-natural
- I — Improved grassland
- Mixed woodland - plantation
- Japanese Knotweed
- SI — Poor semi-improved grassland
- Scrub - dense/continuous
- Standing water
- Defunct hedge - species-poor
- Dry ditch
- Hedge with trees - native species-rich
- Hedge with trees - species-poor
- Intact hedge - species-poor
- Standng water
- Scattered scrub
- Scattered tree - broadleaved
- H1 — Hedgerow number
- F1 — Field number
- W1 — Watercourse number
- D1 — Ditch number

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Client: RPS Cardiff

Project: Plas Power Solar Park

Title: Phase 1 habitat map

Status	Drawn By	PM/Checked By
Draft	MP	GK
Project Number	**Scale @ A3**	**Date Created**
ECO02166	1:5,000	21/06/23
Figure Number		**Rev**
1a		**04**

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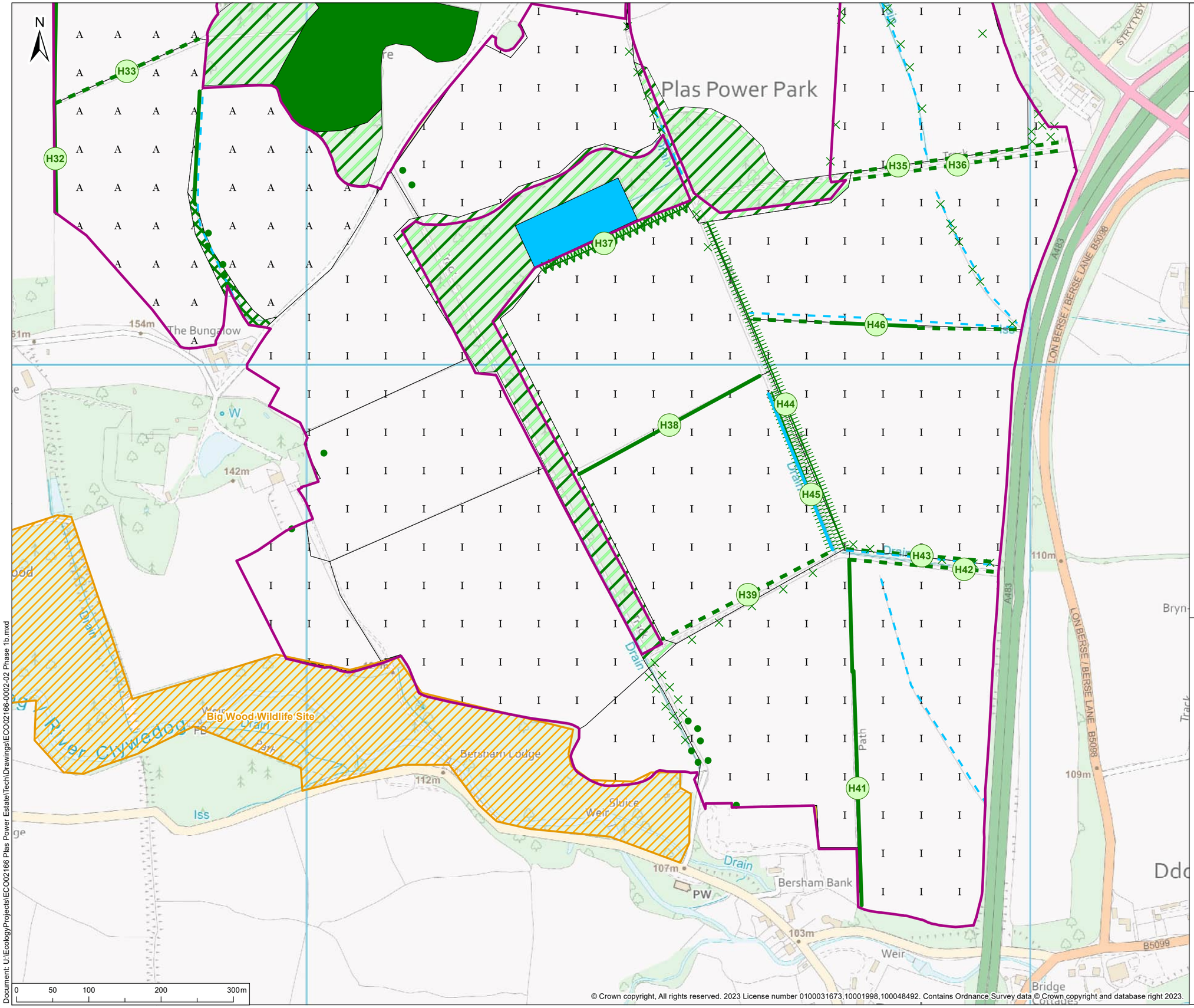

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Draft	MP	GK
Project Number	**Scale @ A3**	**Date Created**
ECO02166	1:5,000	21/06/23
Figure Number		**Rev**
1b		**04**

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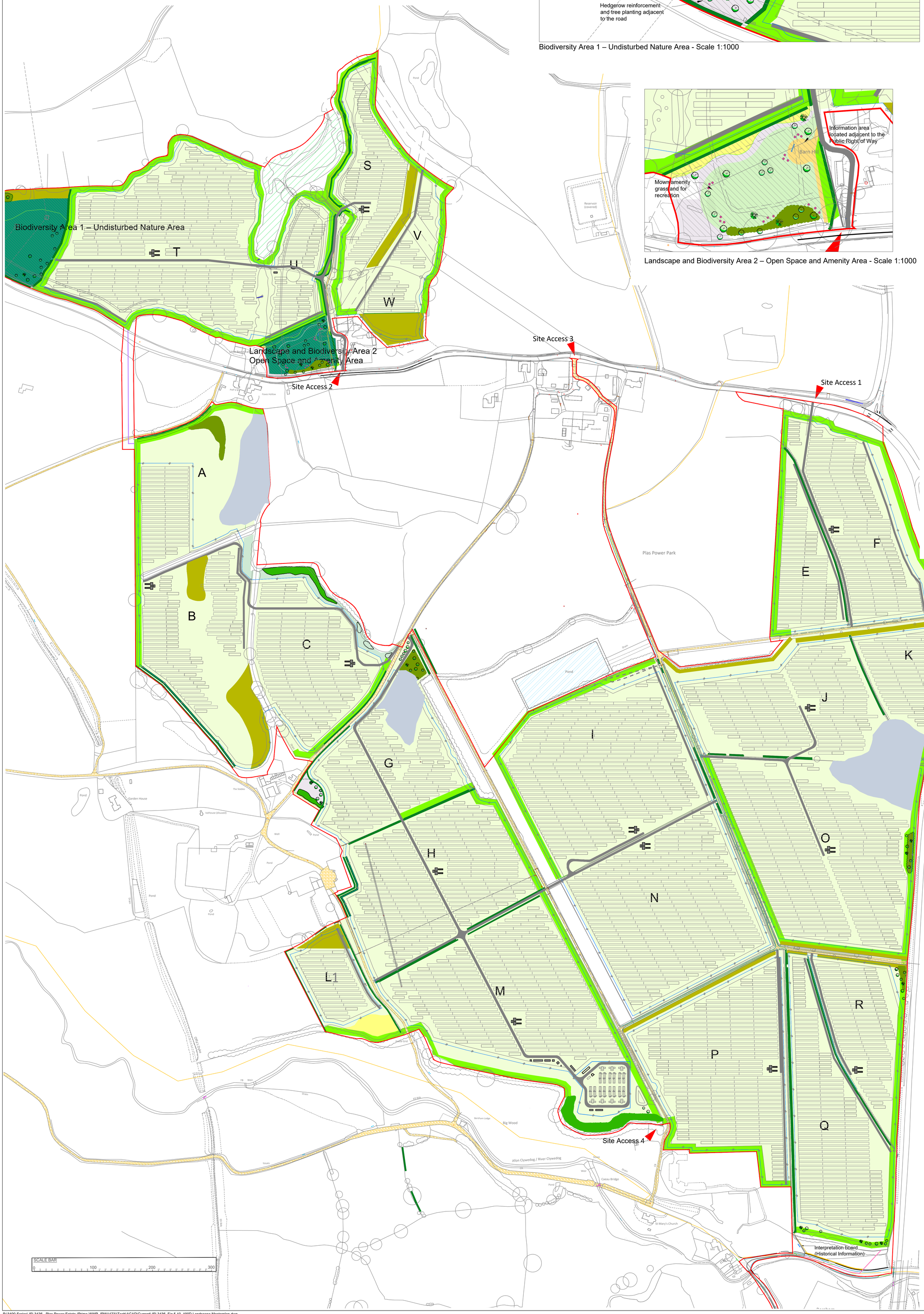
Biodiversity Area 1 – Undisturbed Nature Area - Scale 1:1000

Landscape and Biodiversity Area 2 – Open Space and Amenity Area - Scale 1:1000



Key

Proposed elements

- APPLICATION SITE BOUNDARY
- SITE ACCESS
- MODULE PANELS (See Layout for further details)
- SECURITY FENCE TBC
- PROPOSED ACCESS TRACK
- STRUCTURES (See Layout for further details)
- A — FIELD REFERENCE For LVIA and G&G

SOFT LANDSCAPE

Proposed elements

- DECIDUOUS TREE Varied native species and stock sizes
- CONIFEROUS TREE Varied native species
- SPECIMEN SHRUB In shrub border or gravel area
- NATIVE HEDGEROW (WITH SPACED STANDARD TREES) Complementing existing hedge lines and providing new field boundaries
- NATIVE CLIPPED HEDGEROW Complementing existing hedge lines and providing new field boundaries
- STRUCTURAL WOODLAND AND SHRUB Varied structure native woodland planting
- WOODLAND EDGE SHRUB Varied structure native shrub planting
- GRAZING GRASSLAND
- FIELD MARGIN MEADOW
- TUSSOCKY GRASSLAND
- WOODLAND MEADOW
- WILDFLOWER MEADOW
- WETLAND MEADOW
- MOWN AMENITY GRASS
- SPRING FLOWERING BULB PLANTING

HARD LANDSCAPE

Proposed elements

- INTERPRETATION BOARD Varied information, refer to notes for details
- FOOTPATH Compacted gravel

BIODIVERSITY ENHANCEMENTS

- WILD BIRD SEED CROP 6m wide on southern side of hedgerows
- ECOLOGICAL ENHANCEMENTS As per ecological reports
- ECOLOGICAL ENHANCEMENT AREA See inserts for details

Existing features

- TREES To be retained and protected. New tree planting would complement existing species and provide ongoing variation and structure.
- WOODLAND To be retained, protected and managed appropriately for longevity
- HEDGEROW / SCRUB To be retained, protected and gapped up where appropriate and managed on rotational basis to a height of 2.5-3m
- PUBLIC RIGHTS OF WAY Maintained and opportunities to further connect (As traced from OS Explorer 1:25,000)
- ANCIENT WOODLAND CLASSIFICATION Ref to Arb reports for further detail
- WATERBODY To be retained, protected and enhanced as possible and recommended within ecological reports
- GRAVEL TRACK Existing gravel track to be retained

Note

The illustrated landscape treatment would not alter if the proposed development included PVs instead of the BESS

Field D has been removed from the development

N

Rev	Description	By	CB	Date
D	REVISED LAYOUT	PL	GL	01.24
C	REVISED LAYOUT	CL	KH	11.23
B	OPEN SPACE AMENITY AREA	CL	KH	10.23
A	REVISED LAYOUT 2023	CL	KH	09.23

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Client: Lightsource bp

Project: Plas Power Solar and Energy Storage Project

Title: Illustrative Landscape and Ecology Masterplan

Status	Drawn By	PM/Checked by
Planning	KH	GL

Job Ref	Scale @ A0	Date Created
JSL3436	See Scale Bar	Feb 2024

RPS Drawing / Figure Number: Figure 5.10

Rev: D

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Plas Power Solar and Energy Storage Project

Headline Results

Return to results menu

Scroll down for final results ⚠

On-site baseline	*Habitat units*	273.59		
	Hedgerow units	49.02		
	Watercourse units	2.25		
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	449.62		
	Hedgerow units	84.20		
	Watercourse units	2.25		
On-site net change (units & percentage)	*Habitat units*	176.03	64.34%	
	Hedgerow units	35.18	71.76%	
	Watercourse units	0.00	0.00%	On-site net gain is less than target set ⚠

Off-site baseline	*Habitat units*	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site net change (units & percentage)	*Habitat units*	0.00	0.00%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%

Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	176.03
	Hedgerow units	35.18
	Watercourse units	0.00
Spatial risk multiplier (SRM) deductions	*Habitat units*	0.00
	Hedgerow units	0.00
	Watercourse units	0.00

FINAL RESULTS

Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	176.03	
	Hedgerow units	35.18	
	Watercourse units	0.00	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	64.34%	
	Hedgerow units	71.76%	
	Watercourse units	0.00%	Total net gain achieved is less than target set ⚠
Trading rules satisfied?	Yes ✓		

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Habitat units	10.00%	273.59	300.95	0.00	Unit requirement met or surpassed ✓
Hedgerow units	10.00%	49.02	53.92	0.00	Unit requirement met or surpassed ✓
Watercourse units	10.00%	2.25	2.48	0.23	

Project Name: Flas Power Solar and Energy Storage Project Map Reference:

A-1 On-Site Habitat Baseline

Condense / Show Columns | Condense / Show Rows | Main Menu | Instructions

Area habitat summary	
Total Net Unit Change	170.03
Total Net % Change	64.34%
Trading Rules Satisfied	Yes ✓

	Existing area habitats			Distinctiveness		Condition		Strategic significance			Required Action to Meet Trading Rules	Ecological baseline	Retention category biodiversity value						Bespoke compensation agreed for unacceptable losses	Comments		
Ref	Broad Habitat	Habitat Type	Area (hectares)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic Significance multiplier		Total habitat units	Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area habitat lost	Units lost		User comments	Consenting body comments	GIS reference number
1	Grassland	Modified grassland	80.51	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required 2	161.02	72.4	4	144.80	8.00	4.11	8.22		Improved, sheep grazed grassland. Passes condition criteria C, D, E, F, G.		
2	Grassland	Modified grassland	15.8	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required 2	31.60	0	15.8	0.00	31.60	0.00	0.00		Small sections of S1. Passes condition criteria C, F, G		
3	Grassland	Modified grassland	1.73	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required 2	3.46	0	1.73	0.00	3.46	0.00	0.00		Arable crop (fields north of A road)		
4	Cropland	Non-cereal crops	19.77	Low	2	Condition Assessment N/A	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required 2	39.54	0	0	0.00	0.00	19.77	39.54		Grass ley (fields south of A road)		
5	Cropland	Temporary grass and clover leys	16.39	Low	2	Condition Assessment N/A	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required 2	32.78	0	0	0.00	0.00	16.39	32.78		Section of scrub bEtween grass ley fields. Passes condition criteria A, C.		
6	Heathland and shrub	Mixed scrub	0.26	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (or)	1.04	0.26	0	1.04	0.00	0.00	0.00				
7	Individual trees	Rural tree	0.1832	Medium	4	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (or)	2.20	0.1832	0	2.20	0.00	0.00	0.00				
8	Individual trees	Rural tree	0.244	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (or)	1.95	0.244	0	1.95	0.00	0.00	0.00		Tracks throughout site		
9	Urban	Artificial unvegetated, unsealed surface	1.08	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Compensation Not Required	0.00	1.08	0	0.00	0.00	0.00	0.00				
10																						

ct Name: Plas Power Solar and Energy Storage Project Map Refer

A-3 On-Site Habitat Enhancement

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Area habitat summary	
Total Net Unit Change	176.03
Total Net % Change	64.34%
Trading Rules Satisfied	Yes ✓

A 'Fairly' Category has been used - check evidence to ensure this is appropriate ⚠

Baseline habitats

Baseline ref	Baseline habitat	Total habitat area (hectares)	Baseline distinctiveness band	Baseline distinctiveness score	Baseline condition category	Baseline condition score	Baseline strategic significance category	Baseline strategic significance score	Baseline habitat units	Required Action to Meet Trading Rules
1	Grassland - Modified grassland	80.51	Low	2	Poor	1	Low Strategic Significance	1	161.02	Same distinctiveness or better habitat required ≥
2	Grassland - Modified grassland	15.8	Low	2	Poor	1	Low Strategic Significance	1	31.60	Same distinctiveness or better habitat required ≥
3	Grassland - Modified grassland	1.73	Low	2	Poor	1	Low Strategic Significance	1	3.46	Same distinctiveness or better habitat required ≥

Post development/ post intervention habitats

Baseline ref	Proposed Habitat (Pre-populated but can be overridden): Proposed Broad Habitat	Proposed habitat	Change in distinctiveness and condition: Distinctiveness change	Condition change	Area (hectares)	Distinctiveness	Score	Condition	Score
1	Grassland	Other neutral grassland	Low - Medium	Lower Distinctiveness Habitat - Fairly Good	4	Medium	4	Fairly Good	2.5
2	Grassland	Other neutral grassland	Low - Medium	Lower Distinctiveness Habitat - Moderate	15.8	Medium	4	Moderate	2
3	Grassland	Modified grassland	Low - Low	Poor - Moderate	1.73	Low	2	Moderate	2

Baseline ref	Strategic significance: Strategic significance	Strategic significance	Strategic position multiplier	Temporal risk multiplier: Standard time to target condition (years)	Habitat enhanced in advance (years)	Delay in starting habitat enhancement (years)	Standard or adjusted time to target condition	Final time to target condition (years)	Final time to target multiplier
1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	12	0	0	Standard time to target condition applied	12	0.652
2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	10	0	0	Standard time to target condition applied	10	0.700
3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	10	0	0	Standard time to target condition applied	10	0.700

Baseline ref	Difficulty risk multipliers: Standard difficulty of enhancement	Applied difficulty multiplier	Final difficulty of enhancement	Difficulty multiplier applied	Habitat units delivered	Comments: User comments	Consenting body comments	GIS reference number
1	Low	Standard difficulty applied	Low	1	28.87	Field margins (see field margin meadow on landscape plan)		
2	Low	Standard difficulty applied	Low	1	97.99	Two improved fields to be enhanced through reseeding and sensitive management		
3	Low	Standard difficulty applied	Low	1	5.88	SI to be sensitively managed		

Project Name: Pias Power Solar and Energy Storage Project Map Reference:
A-2 On-Site Habitat Creation

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Area habitat summary	
Total Net Unit Change	178.08
Total Net % Change	94.94%
Trading Rules Satisfied	Yes ✓
Area Check (excluding individual trees and green walls)	Area Acceptable ✓

A 'Fairly' Category has been used - check evidence to ensure this is appropriate ⚠

Post development/ post intervention habitats

Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness		Condition		Strategic significance			Temporal multiplier				Difficulty multipliers				Habitat units delivered	Comments		GIS reference number
			Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier	Standard time to target condition (years)	Habitat created in advance (years)	Delay in starting habitat creation (years)	Standard or adjusted time to target condition	Final time to target condition (years)	Final time to target multiplier	Standard difficulty of creation	Applied difficulty multiplier	Final difficulty of creation	Difficulty multiplier applied		User comments	Consenting body comments	
Grassland	Modified grassland	26.5	Low	2	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	4	0	0	Standard time to target condition applied	4	0.867	Low	Standard difficulty applied	Low	1	91.92	Grassland on former arable - acres with grazing mixture and sheep grazed, panels to be installed in fields		
Grassland	Other neutral grassland	3.94	Medium	4	Fairly Good	2.5	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	7	0	0	Standard time to target condition applied	7	0.779	Low	Standard difficulty applied	Low	1	30.70	Meadow grassland margins on former arable		
Grassland	Other neutral grassland	0.45	Medium	4	Fairly Good	2.5	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	7	0	0	Standard time to target condition applied	7	0.779	Low	Standard difficulty applied	Low	1	3.51	Woodland grassland margins on former arable		
Grassland	Other neutral grassland	1.71	Medium	4	Fairly Good	2.5	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	7	0	0	Standard time to target condition applied	7	0.779	Low	Standard difficulty applied	Low	1	13.33	Hedgerow grassland on former arable		
Grassland	Other neutral grassland	0.77	Medium	4	Fairly Good	2.5	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	7	0	0	Standard time to target condition applied	7	0.779	Low	Standard difficulty applied	Low	1	6.00	Larger areas of tussocky grassland		
Grassland	Other neutral grassland	0.51	Medium	4	Fairly Good	2.5	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	7	0	0	Standard time to target condition applied	7	0.779	Low	Standard difficulty applied	Low	1	3.97	Mown amenity in Biodiversity Area 2		
Cropland	Arable field margins game bird mix	2.23	Medium	4	Condition Assessment N/A	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0	0	Standard time to target condition applied	1	0.965	Low	Standard difficulty applied	Low	1	8.61	Winter cover crop		
Urban	Artificial unvegetated, unsealed surface	2	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	0	0	0	Standard time to target condition applied	0	1.000	Low	Standard difficulty applied	Low	1	0.00	New tracks		
Urban	Developed land; sealed surface	1	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	0	0	0	Standard time to target condition applied	0	1.000	Low	Standard difficulty applied	Medium	0.67	0.00	Built infrastructure elements		
Heathland and shrub	Mixed scrub	1.05	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	5	0	0	Standard time to target condition applied	5	0.837	Low	Standard difficulty applied	Low	1	7.03	New sections of dense scrub throughout		
Lakes	Ponds (non-priority habitat)	0.12	Medium	4	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	5	0	0	Standard time to target condition applied	5	0.837	Low	Standard difficulty applied	Low	1	1.21	New pond creation in Biodiversity Area		
Individual trees	Rural tree	0.2036	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	22	0	0	Standard time to target condition applied	22	0.382	Low	Standard difficulty applied	Low	1	0.62	New tree planting throughout		

Project Name: Plas Power Solar and Energy Storage Project Map Reference

B-1 On-Site Hedge Baseline

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Hedgerow summary	
Total Net Unit Change	35.18
Total Net % Change	71.76%
Trading Rules Satisfied	Yes ✓

	Existing hedgerow habitats			Distinctiveness	Condition	Strategic significance	Required Action to Meet Trading Rules	Ecological baseline	Retention category biodiversity value						Comments		
Baseline ref	Hedge number	Hedgerow type	Length (km)	Distinctiveness	Condition	Strategic significance		Total hedgerow units	Length retained	Length enhanced	Units retained	Units enhanced	Length lost	Units lost	User comments	Consenting body comments	GIS reference number
1	H11, H12, H13, H37	Species-rich native hedgerow with trees	0.43	High	Good	Area/compensation not in local strategy/ no local strategy	Like for like or better	7.74	0.43		7.74	0.00	0.00	0.00	Passes condition criteria A1, A2, B1, B2, C1, D1, D2, E1 (some), E2		
2	H8, H14, H22	Species-rich native hedgerow with trees	0.56	High	Moderate	Area/compensation not in local strategy/ no local strategy	Like for like or better	6.72		0.56	0.00	6.72	0.00	0.00	Passes condition criteria A1, A2, B1, B2, D1, D2, E1, E2		
3	H16	Species-rich native hedgerow with trees - associated with bank or ditch	0.23	V.High	Moderate	Area/compensation not in local strategy/ no local strategy	Like for like	3.68		0.23	0.00	3.68	0.00	0.00	Passes condition criteria A1, A2, B1, B2, D1, D2, E1, E2		
4	H12	Native hedgerow with trees	0.32	Medium	Good	Area/compensation not in local strategy/ no local strategy	Same distinctiveness band or better	3.84	0.32		3.84	0.00	0.00	0.00	Passes condition criteria A1, A2, B1, B2, C1, D1, D2, E1, E2		
5	H17, H19, H20, H21, H44	Native hedgerow with trees	0.83	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Same distinctiveness band or better	6.64	0.15	0.68	1.20	5.44	0.00	0.00	Passes condition criteria A1, A2, B1, B2, D1, D2, E1 (some), E2 H17, H19, H21 and H44 enhanced		
6	H45	Native hedgerow with trees - associated with bank or ditch	0.27	High	Moderate	Area/compensation not in local strategy/ no local strategy	Like for like or better	3.24	0.27		3.24	0.00	0.00	0.00	Passes condition criteria A1, A2, B1, B2, D1, D2, E1, E2		
7	H15	Native hedgerow - associated with bank or ditch	0.28	Medium	Good	Area/compensation not in local strategy/ no local strategy	Same distinctiveness band or better	3.36	0.28		3.36	0.00	0.00	0.00	Passes condition criteria A1, A2, B1, C1, D1, E1		
8	H43	Native hedgerow - associated with bank or ditch	0.22	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Same distinctiveness band or better	1.76		0.22	0.00	1.76	0.00	0.00	Passes condition criteria A1, A2, B1, D1, D2		
9	H29, H32, H38, H41, H34	Native hedgerow	1.34	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Same distinctiveness band or better	5.36	0.95	0.39	3.80	1.56	0.00	0.00	Passes condition criteria A1, A2, B1, B2, D1, D2 H29 and H32 enhanced		
10	H33, H35, H36, H39, H42, H46	Native hedgerow	1.67	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Same distinctiveness band or better	6.68	1.46	0.21	5.84	0.84	0.00	0.00	Passes condition criteria A1, A2, B1, D1, D2 H33 enhanced		
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Project Name: Pias Power Solar and Energy Storage Project Map Reference

B-2 On-Site Hedge Creation

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Hedgerow summary	
Total Net Unit Change	38.18
Total Net % Change	71.70%
Trading Rules Satisfied	Yes ✓

		Proposed habitats		Distinctiveness		Condition		Strategic significance			Temporal multiplier						Difficulty risk multipliers				Hedge units delivered	Comments		
Baseline ref	New hedge number	Habitat type	Length (km)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier	Standard Time to target condition (years)	Habitat created in advance (years)	Delay in starting habitat creation (years)	Standard or adjusted time to target condition	Final time to target condition (years)	Final time to target multiplier	Standard difficulty of creation	Applied difficulty multiplier	Final difficulty of creation	Difficulty multiplier applied		User comments	Consenting body comments	GIS reference number
1		Species-rich native hedgerow	3.37	Medium	4	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	12	0	0	Standard time to target condition applied	12	0.652	Low	Standard difficulty applied	Low	1	26.37	New native hedge planting throughout		
2																								

me: Plas Power Solar and Energy Storage Project Map R

B-3 On-Site Hedge Enhancement

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Hedgerow summary	
Total Net Unit Change	35.18
Total Net % Change	71.76%
Trading Rules Satisfied	Yes ✓

Baseline Habitats

Baseline ref	Baseline habitat	Length (km)	Baseline distinctiveness band	Baseline distinctiveness score	Baseline condition category	Baseline condition score	Baseline strategic significance category	Baseline strategic significance score	Baseline habitat units	Required Action to Meet Trading Rules
2	Species-rich native hedgerow with trees	0.56	High	6	Moderate	2	Low Strategic Significance	1	6.72	Like for like or better
3	Species-rich native hedgerow with trees - associated with bank or ditch	0.23	V.High	8	Moderate	2	Low Strategic Significance	1	3.68	Like for like
5	Native hedgerow with trees	0.83	Medium	4	Moderate	2	Low Strategic Significance	1	6.64	Same distinctiveness band or better
8	Native hedgerow - associated with bank or ditch	0.22	Medium	4	Moderate	2	Low Strategic Significance	1	1.76	Same distinctiveness band or better
9	Native hedgerow	1.34	Low	2	Moderate	2	Low Strategic Significance	1	5.36	Same distinctiveness band or better
10	Native hedgerow	1.67	Low	2	Moderate	2	Low Strategic Significance	1	6.68	Same distinctiveness band or better

Post development/ post intervention habitats

Baseline ref	Proposed (Pre-populated but can be overridden)	Change in distinctiveness and condition: Distinctiveness movement	Change in distinctiveness and condition: Condition movement	Length (km)	Distinctiveness: Distinctiveness	Distinctiveness: Score	Condition: Condition	Condition: Score
2	Species-rich native hedgerow with trees	High - High	Moderate - Good	0.56	High	6	Good	3
3	Species-rich native hedgerow with trees - associated with bank or ditch	V.High - V.High	Moderate - Good	0.23	V.High	8	Good	3
5	Native hedgerow with trees	Medium - Medium	Moderate - Good	0.68	Medium	4	Good	3
8	Native hedgerow - associated with bank or ditch	Medium - Medium	Moderate - Good	0.22	Medium	4	Good	3
9	Native hedgerow	Low - Low	Moderate - Good	0.39	Low	2	Good	3
10	Native hedgerow	Low - Low	Moderate - Good	0.21	Low	2	Good	3
							Good	3

Baseline ref	Strategic significance: Strategic significance	Strategic significance: Strategic significance	Strategic significance: Strategic position multiplier	Temporal multiplier: Standard Time to target condition (years)	Temporal multiplier: Habitat enhanced in advance (years)	Temporal multiplier: Delay in starting habitat enhancement (years)	Temporal multiplier: Standard or adjusted time to target condition	Temporal multiplier: Final time to target condition (years)	Temporal multiplier: Final Time to target multiplier
2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	4	0	0	Standard time to target condition applied	4	0.867
3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	4	0	0	Standard time to target condition applied	4	0.867
5	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	4	0	0	Standard time to target condition applied	4	0.867
8	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	2	0	0	Standard time to target condition applied	2	0.931
9	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	2	0	0	Standard time to target condition applied	2	0.931
10	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	2	0	0	Standard time to target condition applied	2	0.931
	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1		0	0			

Baseline ref	Difficulty risk multipliers: Standard difficulty of enhancement	Difficulty risk multipliers: Applied difficulty multiplier	Difficulty risk multipliers: Final difficulty of enhancement	Difficulty risk multipliers: Difficulty multiplier applied	Hedge units delivered	Comments: User comments	Comments: Consenting body comments	GIS reference number
2	Low	Standard difficulty applied	Low	1	9.63	Hedgerows where adjoining grassland will develop higher value		
3	Low	Standard difficulty applied	Low	1	5.28	Hedgerows where adjoining grassland will develop higher value		
5	Low	Standard difficulty applied	Low	1	7.80	Hedgerows where adjoining grassland will develop higher value		
8	Low	Standard difficulty applied	Low	1	2.58	Hedgerows where adjoining grassland will develop higher value		
9	Low	Standard difficulty applied	Low	1	2.29	Hedgerows where adjoining grassland will develop higher value		
10	Low	Standard difficulty applied	Low	1	1.23	Hedgerows where adjoining grassland will develop higher value		

Project Name: Plas Power Solar and Energy Storage Project

C-1 On-Site WaterC' Baseline

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Watercourse summary	
Total Net Unit Change	0.00
Total Net % Change	0.00%
Trading Rules Satisfied	Yes ✓

Existing watercourse type			Distinctiveness		Condition		Strategic significance			Watercourse encroachment		Riparian encroachment		Required Action to Meet Trading Rules	Ecological baseline	Retention category biodiversity value						Bespoke compensation agreed for unacceptable losses	Comments		
Baseline ref	Watercourse type	Length (km)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic significance multiplier	Extent of encroachment	Multiplier	Extent of encroachment for both banks	Multiplier		Total watercourse units	Length retained	Length enhanced	Units retained	Units enhanced	Length Lost	Units Lost		User Comments	Consenting body comments	GIS reference number
1	Other rivers and streams	0.5	High	6	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	No Encroachment	1	Major/Major	0.75	Same habitat remained =	2.25	0.5	0	2.25	0.00	0.00	0.00				
2																									